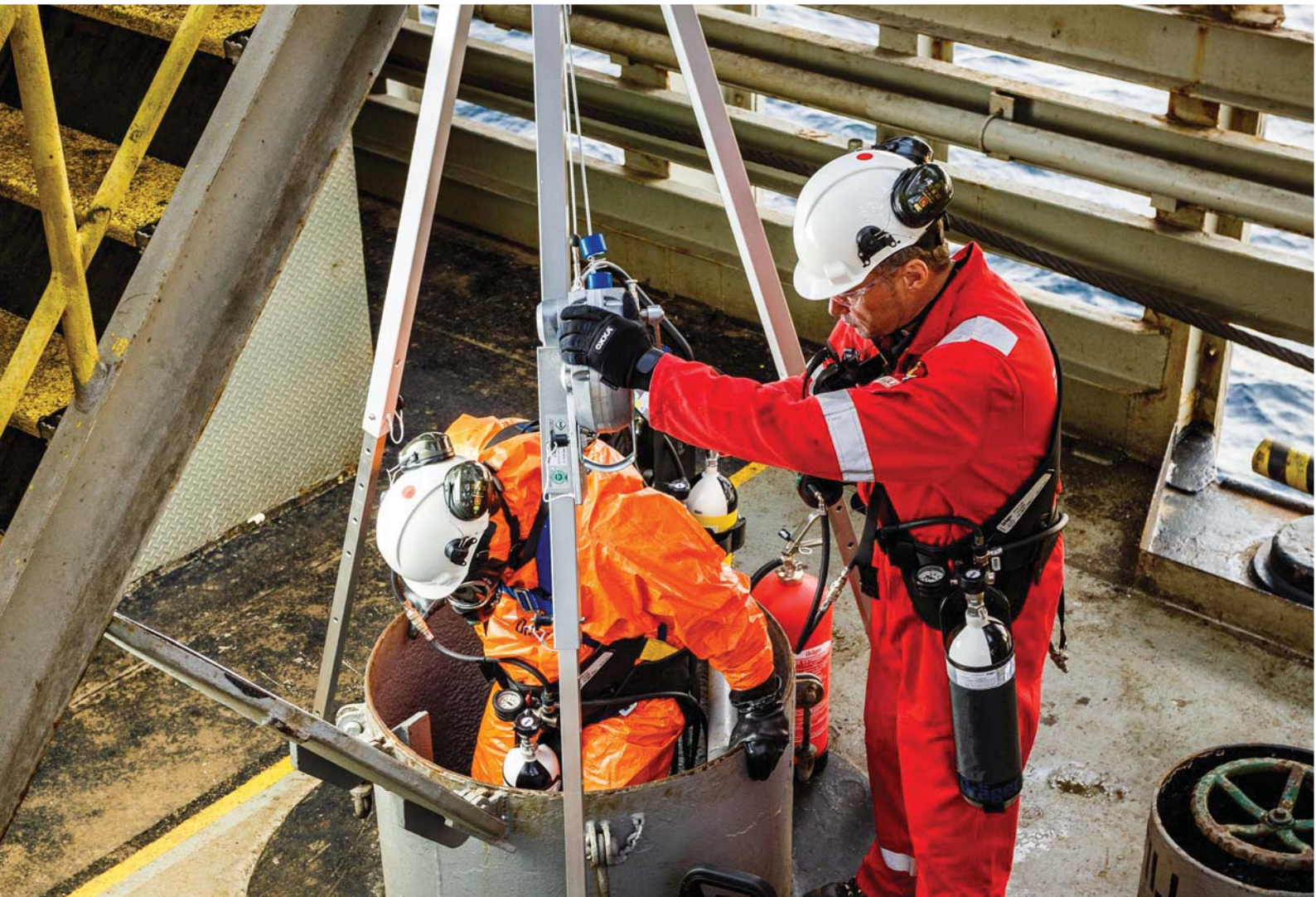


# PRODUCT CATALOGUE

► OUR FRS PRODUCTS



Dräger Marine & Offshore has a long history of providing dedicated support to their customers, by supplying a wide range of quality products and services to a global audience for marine and offshore. This approach facilitates a Firefighting, Rescue and Safety (FRS) equipment and service capability from a single source. The Dräger Marine & Offshore organization is built around a proven total care FRS concept.



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Hoogvliet, 2019

## ADVANTAGES

- ✓ Total FRS package
- ✓ Fast delivery
- ✓ 24/7, 365 days support
- ✓ Largest FRS product range
- ✓ Top quality
- ✓ Worldwide Dräger locations

## SAFETY ON BOARD

Dräger Marine & Offshore has a long history of providing dedicated support to their customers, by supplying a wide range of quality products and services to a global audience for marine and offshore. This approach facilitates a Firefighting, Rescue and Safety (FRS) equipment and service capability from a single source. The Dräger Marine & Offshore organization is built around a proven total care FRS concept.

Wherever people or assets are subject to danger, those who are responsible for their safety rely on the firefighting, rescue and safety equipment from Dräger. Dräger Marine & Offshore has always recognized its responsibility as a supplier of safety systems and will continue to do everything we can to meet the needs of our customers, and keep Dräger customers safe.

### ONE PARTNER FOR ALL FRS SOLUTIONS

Dräger Marine & Offshore offers a complete portfolio of firefighting, rescue and safety equipment, including service and maintenance.

Dräger realizes that products that are used to protect and save lives and minimise damage must function 100 percent.

We provide solutions for the Offshore, Sea Shipping, Barge and Inland shipping.

### DEDICATED TO THE MARINE & OFFSHORE WORLD

Years of experience and highly trained and certified technicians make Dräger an authority on firefighting, rescue and safety projects for the marine and offshore. Our organization has a strong global presence and meets all of the requirements of high safety and quality standards.

Dräger Marine & Offshore is located at the center of the Port of Rotterdam and at major North Sea Oil & Gas ports which guarantees fast delivery of the FRS equipment and services. Dräger is available 24 hours a day, seven days a week and 365 days a year.

Meeting our customers needs is the cornerstone of our organization. We clearly understand that longlasting relationships are built upon mutual trust and proven reliability.

Dräger. Technology for Life®

## MEETING YOUR NEEDS

Dräger Marine & Offshore specializes on sales and service in the field of firefighting, rescue and safety equipment. As part of the well known Dräger organization we offer our customers first class products and support.

We feel responsible for all firefighting, rescue and safety equipment on board of your vessels and offshore installations. Our service portfolio consists of supply, installation and maintenance of FRS equipment.

### DRÄGER MARINE & OFFSHORE OFFERS YOU

- one contact point for all firefighting, rescue and safety service
- a service organization and structure dedicated to the marine and offshore world
- service and support for both Dräger and non-Dräger equipment
- clear pricing structure for all services
- one invoice for all FRS services
- 90 days warranty on all services and repairs
- exchange equipment available during service to secure safety on board
- issuing of certificates on the services as a standard

### 24/7 AVAILABILITY 365 DAYS A YEAR

Our highly skilled service technicians are always there! We have a continuous working schedule. Whenever you visit our ports, our organization is standing by to support you.

### ISSUING OF CERTIFICATES

When we service FRS equipment we ensure that the equipment is tested according to the manufacturer's requirements and appropriate regulations.

### RENTAL EQUIPMENT

Via a rental pool Dräger makes all the safety-relevant equipment required (during shutdown) available to you, from communications technology or gas detection devices to personal protection equipment.

### ON BOARD SERVICE

Our field service engineers are fully equipped to help you on site. Trained, skilled and ready to service all portable firefighting equipment, fixed fire suppression, smoke detection and gas detection systems. These services will be carried out onboard wherever possible. If equipment requires repair, refilling, hydrostatic pressure testing or if computerized diagnostic equipment is required we will transport the equipment to our workshop. Of course we will provide adequate exchange equipment wherever possible to ensure the safety onboard during the service period.

### FRS WORKSHOPS

Our workshop technicians use modern technology to test, refill and repair your FRS equipment. Modern diagnostic equipment ensures rapid and reliable elimination of all malfunctions in safety equipment. Certified calibration and test gases make the service on your gas detection equipment both traceable and auditable.

### SPARE PARTS

We stock a wide range of parts for the FRS products most commonly used onboard of global, commercial marine vessels. We service for both Dräger and non-Dräger equipment; from fire extinguishers to self contained breathing apparatus; from portable gas detectors to life jackets.

### CLASS SURVEYOR

We are in close contact with all major classification organisations. If our service requires a Class witness we will contact the relevant Class surveyor and invite them to attend and verify the inspection.

# QUALIFIED MAINTENANCE

Our Total Care Offshore and Marine Service is a service strategy with a vision. The basis of this vision lies in the quality of our people and organization. To be able to offer high quality service from a single source we invest in qualified technicians, modern workshops together with our back office and logistics teams.

## BASIC INSPECTION

The basic inspection forms the heart of our services. The basic inspection contains all activities you should expect from quality maintenance.

The price for the basic inspection will cover the inspection and testing of the equipment according to the applicable test procedures. It will cover the administrative activities like registration, service labels and anti-tamper tags. And finally it will cover for the certification and the issuing of the paperwork. If the equipment is in serviceable condition and no mandatory replacements are required then the basic inspection is all you pay for.

## REFILLING

In a number of situations refilling is part of the mandatory maintenance schedule.

To provide quality maintenance you must have the right equipment and service providers to fulfill this vital task. Our workshops are fully equipped to refill the following equipment:

- Breathing air cylinders according to EN12021
- Medical Oxygen cylinders up to 200 or 300 bar filling pressure
- Nitrogen bottles up to 200 bar
- Dry powder extinguishers; ABC or AB powder
- Fixed dry powder installation
- CO2 extinguishers and CO2 bottles from the CO2 installation
- Foam extinguishers; AFFF or AB fillings
- Fixed foam installations
- Fire suppression systems FM200, foam, water etc.

## HYDROSTATIC PRESSURE TESTING

Hydraulic pressure testing is a mandatory requirement for fire extinguishers, CO2 installations and breathing air or Oxygen cylinders. Performing a correct hydrostatic test requires the right equipment and the technicians who are skilled in performing its use. Our technicians and equipment live up to these expectations. We are able to hydrostatically test all equipment promptly in combination with our refilling capacity without causing delay in your normal port schedule.

## REPAIRS

A key component of providing quality maintenance is the ability to affect repairs. Our technicians are trained to fulfill this challenge. To support our customers our personnel are qualified fire technicians, trained breathing protection and gas detection experts and educated in the service on lifesaving products. In combination with our large spare part stock and the ability to supply replacement products from our warehouse; we ensure that we repair your fire fighting, rescue and safety equipment promptly and on a level you should expect from a quality maintenance provider.

## WARRANTY

As evidence of our high quality we offer a unique warranty on service. On all of our service and repairs we provide warranty of 90 days subject to terms and conditions. On new products we will provide a limited warranty of 12 months.

# FLEXIBLE SERVICE AGREEMENTS

Total Care means that we feel ourselves responsible for all firefighting, rescue and safety equipment on board of your vessels and offshore installation. Our service portfolio consists of supply, installation and maintenance of FRS equipment.

## TOTAL CARE SERVICES

### Firefighting

- Inspection of all types fire extinguishers
- Inspection fixed fire suppression systems CO2 / DP / Foam / FM200 / FS49C2
- Repair / Refill / hydro testing
- Spares for extinguishers & systems on stock
- Foam sample analyses

### Rescue

- Inspection of all brands and types of life rafts
- Inspection of rescue boats, davits & PLB's
- Inspection of lifejackets, immersion suits & AED's
- Inspection of hospital resuscitation & refill med. oxygen
- Refill / hydro testing of oxygen bottles

### Safety

- Inspection of breathing protection & EEBD's
- Calibration of gas detectors & fixed system
- Refill / hydro testing of air cylinders
- Inspection / repair of air compressors
- Inspection of gas tight chemical suits
- Inspection of temperature & pressure equipment
- Inspection of UTI & MMC

Dräger's product and service portfolio meets our customers needs by extensive support by representatives and service experts who are dedicated to the marine and offshore world.

## FACTS AND FIGURES ON ANNUAL BASIS

- 25 cars for service transport
- 7x mobile inspection stations BA sets
- > 30.000 inspections of fire extinguishers
- > 10.000 calibrations of gas detectors
- > 15.000 inspections of BA and escape sets
- > 250 testing of gastight suits
- > 2.000 inspections on inflatable life jackets
- > 30.000 liters of air refill
  - > 2.500 liters of med. oxygen refill
  - > 2.000 tests of SeaMarchall PLB's
  - > 15.000 inspections of lifejackets
  - > 5.000 inspections of survival suits
  - > 1.500 inspections of fixed fire suppression systems

# QUALITY, SAFETY AND LIABILITY

## QUALITY

We guarantee that the offered services are performed to the very highest standards. The quality of our work and our organization is safeguarded by certified Quality Management Systems ISO 9001:2000, ISO14001 and OHSAS18001.

During a contract period Dräger always commits itself to keep the Quality Management System certified and valid. In addition, we welcome an audit by your quality manager at any time.

## SAFETY

Safety on board is a key consideration for all professional operators. It is therefore reassuring that our service technicians are all in possession of a basic safety certificate. They understand the possible risks on board and they know what is expected from them to ensure the safety for themselves, your crew and your assets.

Our safety management system ensures that our procedures and our behavior are regularly monitored and adjusted where required. Of course it is possible to audit our safety system. Please ask your safety manager to contact us at any time to make an appointment.

## LIABILITY INSURANCE

As part of the world wide operating Dräger group ([www.draeger.com](http://www.draeger.com)) our organization is in possession of a liability insurance which cover our activities. On request we can send you a copy of the insurance policy.

## CUSTOMER SATISFACTION

We are your Fire fighting, Rescue and Safety partner who will provide solutions to meet your needs.

We clearly understand that longlasting relationships are built upon mutual trust and proven reliability. Therefore customer satisfaction is a key performance indicator for us.

We constantly monitor our customer satisfaction level and strive to improve our performance, our procedures and general behavior based on your feedback. We have a procedure in place which offers you the opportunity to share your suggestions and/or concerns.

## SKILLED TECHNICIANS

Employees are trained and skilled, our services will meet the required standards and regulations of all major class societies such as:

- Lloyds
- DNV
- BV
- GL
- ABS
- RINA
- RMRS

Offshore teams are trained according to NOGEPa (NL) / OPITO (UK) / OLF (NO).

## MEMBERSHIPS

Dräger Marine & Offshore is a FPAL certified supplier and registered on Shipserv.



Your safety  
is our passion.



Supporting your safety culture since 1889 – FRS equipment, training and service from Dräger.

# Contents

## Firefighting Equipment

---

### **FIRE EXTINGUISHERS PORTABLE**

---

Portable powder extinguishers	7
Portable CO2 extinguishers	19
Portable foam extinguishers	21
Portable water extinguishers	29
Portable wet chemical extinguishers	31

---

### **FIRE EXTINGUISHERS MOVABLE**

---

Movable powder extinguishers	32
Movable CO2 extinguishers	37
Movable foam extinguishers	39

---

### **FIRE HOSES, SPRAY NOZZLES AND COUPLINGS**

---

Fire hoses	42
Spray nozzles and branch pipes (water)	45
Spray nozzles and branch pipes (foam)	50
Couplings and spanners	52
International shore connection	54

---

### **MONITORS (FOAM AND WATER)**

---

Monitors (foam and water)	55
---------------------------	----

---

### **FIXED FIREFIGHTING SYSTEMS**

---

Dräger firefighting monitors	56
Dräger fire protection deluge valves	57
Dräger foam proportioning equipment	58
Dräger fire spray nozzles	59
Dräger gaseous fire suppression systems	60

---

### **FOAM MAKING LIQUID**

---

Foam making liquid 1%	61
Foam making liquid 3%	63
Foam making liquid 6%	67

# Contents

---

## **FIRE PLAN HOLDER**

---

Fire plan holder	70
------------------	----

---

## **FIREMAN'S OUTFIT AND ACCESSORIES**

---

Fireman's clothing	71
Fireman's helmets	85
Fireman's accessories	92

---

## **FIRE BLANKET**

---

Fire blanket	106
--------------	-----

---

## **COVERS AND BRACKETS**

---

Covers for all fire extinguishers	107
Wall brackets for fire extinguishers	109

# Rescue Equipment

---

## **LIFE JACKETS**

---

Rigid life jackets	111
Inflatable life jackets (single chamber)	113
Inflatable life jackets (double chamber)	122
Work life jackets	129

---

## **SURVIVAL SUITS**

---

Immersion suits	130
Work suits	136
Transport suits	141
Thermal protective aid suits	142

---

## **SAFETY LIGHTS FOR LIFE JACKETS AND SUITS**

---

Life jacket lights	143
--------------------	-----

---

## **PERSONAL RESCUE COMMUNICATIONS**

---

Man Over Board Personal Locator	148
---------------------------------	-----

# Contents

Electronic Distress Flare	150
---------------------------	-----

---

## LIFEBUOYS, BRACKETS AND LIGHTS

---

Lifebuoys and lines	151
Lifebuoy brackets	154
Lifebuoy lights and MOB light	156

---

## PYROTECHNICS

---

Hand flares	159
Parachute signal rocket	161
Smoke signal	163
MOB lights and smoke signals	165
Line throwing device	167
Life boat set	169
Bridge set	170

---

## FIRST AID EQUIPMENT

---

Diphoteryne sterilize products	171
Oxygen resuscitator	172
First aid kit and backpack	173
Emergency defibrillator	175
Fire blanket	176
Thermal protective blanket	177

---

## STRETCHERS

---

Stretchers	178
Accessories	184

---

## HELICOPTER DECK EQUIPMENT

---

Helicopter rescue equipment - according to CAP 437	186
Helicopter deck accessories	209

# Safety Equipment

---

## GAS DETECTION EQUIPMENT PORTABLE

---

Single-gas detection equipment	213
--------------------------------	-----

# Contents

Multi-gas detection equipment	227
Dräger X-am® pump	241
Dräger calibration and bump testing	243
Dräger detector tube pumps	249
Dräger tubes	252
Dräger fumigation kit	257
Dräger configuration and evaluation software	259

---

## **GAS DETECTION EQUIPMENT FIXED**

---

Wireless Solutions	260
Control systems	262
Detection of Toxic Gases and Oxygen	268
Detection of Flammable Gases and Vapours	273
System components	282

---

## **ALCOHOL AND DRUGS SCREENING DEVICES**

---

Alcohol screening devices	284
Drugs screening devices	292

---

## **BREATHING PROTECTION EQUIPMENT**

---

Dräger breathing apparatus	296
Dräger full face masks for breathing apparatus	307
Dräger compressed air cylinders	310
Voice communication	314
Dräger emergency escape breathing devices	320
Dräger filter masks and cartridges	335
Airline breathing equipment	348

---

## **BREATHING AIR COMPRESSORS**

---

Breathing air compressors (movable)	359
Dräger Aerotest Simultan HP	364

---

## **PROTECTIVE CLOTHING**

---

Chemical splash suits	365
Dräger gas tight suits	369

---

## **PERSONAL PROTECTIVE EQUIPMENT**

---

Safety jackets and overalls	378
-----------------------------	-----

# Contents

Safety helmets	381
Safety shoes and boots	386
Safety goggles and face shields	390
Safety gloves	393
Rain clothes	395

---

## **FALL PROTECTION MATERIALS**

---

Safety harness and lines	397
Tripod and fall protection equipment	399

---

## **SAFETY SHOWERS AND EYE WASH EQUIPMENT**

---

Safety showers and eye wash-stations	400
Eye wash bottles and holders	403

---

## **DISINFECTION EQUIPMENT**

---

Disinfection of drinking water	406
--------------------------------	-----

---

## **GENERAL SAFETY EQUIPMENT**

---

Freshwater salinometer	407
Smoke and heat detectors	408
Fogmachine	410
Lightstick	411

# FRS Cabinets

---

## **GRP DMO CABINETS**

---

GRP DMO cabinets	413
------------------	-----

---

## **STANDARD CABINETS**

---

Standard cabinets	426
-------------------	-----



## Dräger Powder Extinguisher Composite 6 kgs ABC (stored pressure)



**Dräger powder extinguisher composite 6 kgs ABC**

Stored pressure

The revolution in portable fire extinguishers: composite extinguishers are the latest development in the quest for durable corrosion resistant and low maintenance extinguishers. The extinguishers have EN3, CE and MED certification and a lifetime of 20 years. Powder extinguishers cover type A, B and C fires.

### General description

The red outer HDPE mantle houses a pressure vessel which is manufactured out of HDPE. The valve is supplied in nickel plated brass. Hose clips, squeeze for action handle and carrying handle are supplied in stainless steel. Due to these material and construction choices replacement of the extinguisher caused by corrosion, scratches and dents belong to the past. Resulting into lower lifetime costs. In addition the extinguisher will remain in good condition, offering greater reliability for the user when being deployed in firefighting tasks. These extinguishers are recyclable, reducing waste output at the end of its service life.

### ABC Powder

ABC-powder is suitable for fire extinguishing of substances in fire class A (containing carbons), fire class B (flammable liquids) and fire class C (flammable gases). An additional

feature is that the powder is not conductive to electricity. The powder can be used to a maximum voltage of 1000V and at a distance of at least 1 meter.

### Applications

These extinguishers are extremely suitable for harsh (outdoor, saline) conditions as found on offshore installations, marine application and moist (production) spaces.

### Features

- 10 year manufacturer guarantee
- durable and corrosion resistant
- reliable and ultra-strong composite material
- 100% UV resistant
- ± 15% lighter than conventional extinguishers
- cost reducing
- better overview of cost control
- environmentally friendly
- recyclable product

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / P50PM
Extinguisher	Portable powder fire extinguisher
Type	Stored pressure operated
Capacity	6 kgs
Fire class / Rating	34A/183B
Propellant gas	Nitrogen
Discharge time	20 seconds
Throw length	5 meters
Working pressure	12 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC powder
Temperature range	-20°C to +60°C
Approx gross weight	8.5 kgs
Approx dispatch weight	9 kgs
Approx unit dimension	178 x 570 mm (d x h)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 2211



# Dräger Powder Extinguisher Composite 6 kgs ABC

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher composite 6 kgs ABC (stored pressure)	1	SG00163
Bracket for composite powder extinguisher	1	SG00335
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBWE-70, red door	1	SG02423

## Dräger Powder Extinguisher Composite 9 kgs ABC (stored pressure)

The revolution in portable fire extinguishers: composite extinguishers are the latest development in the quest for durable corrosion resistant and low maintenance extinguishers. The extinguishers have EN3, CE and MED certification and a lifetime of 20 years. Powder extinguishers cover type A, B and C fires.



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Stored pressure

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### Features

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- durable and corrosion resistant
- reliable and ultra-strong composite material
- 100% UV resistant
- ± 15% lighter than conventional extinguishers
- cost reducing
- better overview of cost control
- environmentally friendly
- recyclable product

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / P50-9P
Extinguisher	Portable powder fire extinguisher
Type	Stored pressure operated
Capacity	9 kgs
Fire class / Rating	43A/233B
Propellant gas	Nitrogen
Throw length	5 meters
Working pressure	12 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC powder
Temperature range	-20°C to +60°C
Approx gross weight	11.7 kgs
Approx dispatch weight	12.7 kgs
Approx unit dimension	200 x 640 mm (D x H)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 2211/01

# Dräger Powder Extinguisher Composite 9 kgs ABC

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher composite 9 kgs ABC (stored pressure)	1	SG00164
Bracket for composite powder extinguisher	1	SG00335
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBWE-70, red door	1	SG02423

## Dräger Powder Extinguisher 6 kgs ABC (cartridge)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.



**Dräger powder extinguisher 6 kgs ABC**  
Internal cartridge operated

### Applications for marine, inland shipping and offshore market

- open air and deck areas
- engine rooms
- accommodation rooms

### Features

- high extinguishing efficiency
- allows intermittent and repeated operation
- large neck ring enables servicing and refilling to be conducted with ease
- diecast zinc colour coded headcap
- quality assured for long service life

- standardized operation and spare parts for all extinguishers of the Britannia line
- equipped with a rechargeable internal pressure cartridge zinc coated
- high quality zinc coated treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance 1 m strike button armature in combination with dosing extinguishing pistol for assured immediately operation

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / BA6MED
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Internal cartridge operated
Capacity	6 kgs
Fire class / Rating	ABC / 27A / 183B
Propellant gas	Internal CO <sub>2</sub> cartridge
Discharge time	20 seconds
Throw length	5 meters
Working pressure	12 bar at 20° C
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC dry powder
Temperature range	-20°C to +60°C
Approx gross weight	11.3 kgs
Approx dispatch weight	12.3 kgs
Approx unit dimension	165 x 525 mm (w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036, MED, BS EN 3

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 6 kgs ABC (cartridge)	1	SG00152
Marine bracket for powder extinguisher 6 kgs, including strap	1	SG00334
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBWE-70, red door	1	SG02423
Brittania CO <sub>2</sub> cartridge 115 gr	1	SG00402
Refill 6 kgs ABC powder	1	16120006

## Dräger Powder Extinguisher 9 kgs ABC (cartridge)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.



**Dräger powder extinguisher 9 kgs ABC**  
Internal cartridge operated

### Applications for marine, inland shipping and offshore market

- open air and deck areas
- engine rooms
- accommodation rooms

### Features

- high extinguishing efficiency
- allows intermittent and repeated operation
- large neck ring enables servicing and refilling to be conducted with ease
- diecast zinc colour coded headcap
- Quality assured for long service life

- standardized operation and spare parts for all extinguishers of the Britannia line
- equipped with a rechargeable internal pressure cartridge zinc coated
- high quality surface treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance 1 m strike button armature in combination with dosing extinguishing pistol for assured immediately operation

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / BA9MED
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Internal cartridge operated
Capacity	9 kgs
Fire class / Rating	ABC / 34A 233B
Propellant gas	Internal CO <sub>2</sub> cartridge
Discharge time	26 seconds
Throw length	7 meters
Working pressure	12 bar at 20°C
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC dry powder
Temperature range	-20°C to +60°C
Approx gross weight	15.4 kgs
Approx dispatch weight	16.4 kgs
Approx unit dimension	190 x 570 mm (w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036, MED, BS EN 3

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 9 kgs ABC (cartridge)	1	SG00153
Marine bracket for powder extinguisher 9 kgs, including strap	1	SG00334
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBXF-83, red door	1	SG02432
Britannia CO <sub>2</sub> cartridge 150 gr	1	SG00403
Refill 9 kgs ABC powder, per 6 kgs	1	16120006

## Dräger Powder Extinguisher 12 kgs ABC (cartridge)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.



Dräger powder extinguisher 12 kgs ABC  
Internal cartridge operated

### Applications for marine, inland shipping and offshore market

- open air and deck areas
- engine rooms
- accommodation rooms

### Features

- high extinguishing efficiency
- allows intermittent and repeated operation
- large neck ring enables servicing and refilling to be conducted with ease
- diecast zinc colour coded headcap
- quality assured for long service life

- standardized operation and spare parts for all extinguishers of the Britannia line
- equipped with a rechargeable internal pressure cartridge zinc coated
- high quality zinc coated treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance 1 m strike button armature in combination with dosing extinguishing pistol for assured immediately operation

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / BA12MED
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Internal cartridge operated
Capacity	12 kgs
Fire class / Rating	ABC / 43A 233B
Propellant gas	Internal CO <sub>2</sub> cartridge
Discharge time	34 seconds
Throw length	7 meters
Working pressure	12 bar at 20°C
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC Dry powder
Temperature range	-20°C to +60°C
Approx gross weight	18.7 kgs
Approx dispatch weight	19.7 kgs
Approx unit dimension	190 x 600 mm (w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036, MED, BS EN 3

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 12 kgs ABC (cartridge)	1	SG00154
Marine bracket for powder extinguisher 12 kgs, including strap	1	SG00334
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBXF-83, red door	1	SG02432
2 x refill 6 kgs ABC powder	1	16120006
Britannia CO <sub>2</sub> cartridge 150 gr	1	SG00403

## Dräger Powder Extinguisher 2 kgs ABC (stored pressure)

This powder extinguisher is very effective in fuel fires, making these powder extinguishers extremely suitable for the car. The extinguishers can be used universally for burning solids, burning fluid and burning gas. Both high and low temperature applications are possible. Also extinguishing operating electrical equipment does not pose any danger.



**Dräger powder extinguisher 2 kgs ABC**  
Stored pressure

### ABC Powder

ABC-powder is suitable for fire extinguishing of substances in fire class A (containing carbons), fire class B (flammable liquids) and fire class C (flammable gases). An additional feature is that the powder is not conductive to electricity. The powder can be used to a maximum voltage of 1000V and at a distance of at least 1 meter.

### Applications

These extinguishers are extremely suitable for harsh (outdoor, saline) conditions as found on offshore installations, marine application and moist (production) spaces.

### Features

- High rating
- Squeeze grip design for enhanced discharge control
- Safety relief valve
- Impact resistant plastic foot ring
- Full epoxy polyester coated steel shell for high corrosion protection
- Ergonomic design of discharge nozzle
- Includes a robust transport bracket
- Pressure gauge, impact resistant
- Large diameter neck ring for easy inspection
- Tested for safe use on electrical equipment up to 1000V at a distance of 1 meter

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Moyne Roberts / MP2
Extinguisher	Portable powder fire extinguisher
Type	Stored pressure operated
Capacity	2 kgs
Fire class / Rating	13A/70B/C
Propellant gas	Nitrogen
Discharge time	10 seconds
Throw length	4 to 5 meters
Working pressure	13.5 bar at 20°C
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC powder
Temperature range	-30°C to +60°C
Weight	3.8 kgs
Approx unit dimension	124 x 380 mm (d x h)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 1818

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger 2 kgs ABC powder extinguisher (stored pressure)	1	SG00102

## Dräger Powder Extinguisher 6 kgs ABC (stored pressure)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.



**Dräger powder extinguisher 6 kgs ABC**  
Stored pressure

### Applications for marine, inland shipping and offshore market

- manifolds
- open air and deck areas
- engine rooms
- accommodation rooms

### Features

- high extinguishing efficiency
- allows intermittent and repeated operation
- brass valve and internal parts for longer serviceability

- equipped with a hose and plastic nozzle for high maneuverability
- pressure gauge for instant pressure indication available
- pressure check valve equipped
- high quality surface treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance 1 meter

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / VOLE-X-P 6
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Stored pressure operated
Capacity	6 kgs
Fire class / Rating	ABC / 34A 183B C
Propellant gas	Nitrogen
Discharge time	15 seconds
Throw length	6 meters
Working pressure	15 bar at 20 °C
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	Ammonia Bicarbonate
Temperature range	-30°C to +60°C
Approx gross weight	9.6 kgs
Approx dispatch weight	10.2 kgs
Approx unit dimension	240 x 155 x 520 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036 MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 6 kgs ABC (stored pressure)	1	SG00103
Marine bracket for powder extinguisher 6 kgs, including strap	1	SG00334
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBWE-70, red door	1	SG02423
Refill 6 kgs ABC powder	1	16120006



## Dräger Powder Extinguisher 9 kgs ABC (stored pressure)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.



### Applications for marine, inland shipping and offshore market

- manifolds
- open air and deck areas
- engine rooms
- accommodation rooms

### Features

- high extinguishing efficiency
- allows intermittent and repeated operation
- brass valve and internal parts for longer serviceability

- equipped with a hose and plastic nozzle for high maneuverability
- pressure gauge for instant pressure indication available
- pressure check valve equipped
- high quality surface treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance 1 meter

Dräger powder extinguisher 9 kgs ABC  
Stored pressure

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / VOLE-X-P 9
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Stored pressure operated
Capacity	9 kgs
Fire class / Rating	ABC / 43A 233B C
Propellant gas	Nitrogen
Discharge time	17 seconds
Throw length	6 meters
Working pressure	15 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC-Powder BAVEX
Temperature range	-30°C to +60°C
Approx gross weight	13.5 kgs
Approx dispatch weight	14.2 kgs
Approx unit dimension	240 x 190 x 525 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036 MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 9 kgs ABC (stored pressure)	1	SG00173
Marine bracket for powder extinguisher 9 kgs, including strap	1	SG00334
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBXF-83, red door	1	SG02432

## Dräger Powder Extinguisher 12 kgs ABC (stored pressure)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.



### Applications for marine, inland shipping and offshore market

- manifolds
- open air and deck areas
- engine rooms
- accommodation rooms

### Features

- high extinguishing efficiency
- allows intermittent and repeated operation
- brass valve and internal parts for longer serviceability

- equipped with a hose and plastic nozzle for high maneuverability
- pressure gauge for instant pressure indication available
- pressure check valve equipped
- high quality surface treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance 1 meter

Dräger powder extinguisher 12 kgs ABC  
Stored pressure

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / VOLE X-P 12
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Stored pressure operated
Capacity	12 kgs
Fire class / Rating	ABC / 55A 233B C
Propellant gas	Nitrogen
Discharge time	21 seconds
Throw length	6 - 7 meters
Working pressure	15 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC-Powder BAVEX
Temperature range	-30°C to +60°C
Approx gross weight	16.8 kgs
Approx dispatch weight	17.6 kgs
Approx unit dimension	240 x 190 x 595 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036 Rijkskeurmerk MED

## Dräger Powder Extinguisher 12 kgs ABC (stored pressure)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 12 kgs ABC (stored pressure)	1	SG00105
Marine bracket for powder extinguisher 12 kgs, including strap	1	SG00334
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylen fire extinguisher cabinet JBXF-83, red door	1	SG02432
Polyethylen fire extinguisher cabinet JBDE-85, red door	1	SG02436
2 x refill 6 kgs ABC powder	1	16120006

## Dräger CO2 Extinguisher 2 kg B

The CO2 extinguisher is effective in fighting flammable liquids and electric fires. Carbon dioxide extinguisher works by suffocating the fire. Carbon dioxide displaces oxygen in the air. The extinguishing agent leaves no residue behind when used. CO2 extinguishers cover type B fires.



### Applications for the marine, inland shipping and offshore market

- electrical switch boards
- bridge
- welding areas

### Features

- carbon dioxide is a clean agent that leaves no traces, thus ideal for fighting fires involving electronic & hi-tech equipment

- allows intermittent and repeated operation
- equipped with a brass valve head complete with an overpressure safety valve
- equipped with a squeeze-type valve, conical snow horn, and carrying handle
- high quality surface treatment and red polyester coating
- a flat wall mounting bracket is included

### Dräger CO<sub>2</sub> extinguisher, 2 kgs

In fighting flammable liquids and electric fires

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / Col X-K 2
Extinguisher	Portable CO2 Fire Extinguisher
Type	Stored pressure operated
Capacity	2 kgs
Fire class / Rating	34B
Propellant gas	CO <sub>2</sub>
Discharge time	approx. 8 seconds
Throw length	3 - 4 meters
Working pressure	65 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	CO <sub>2</sub>
Temperature range	-30°C to +60°C
Approx gross weight	7.1 kgs
Approx dispatch weight	8.1 kgs
Approx unit dimension	250 x 110 x 550 mm (l x w x h)
Color	Red, 100% polyester coating
Approvals	DIN/EN3 MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CO2 extinguisher 2 kg B, including a flat wall mounting bracket	1	SG00141
Marine bracket for CO2 extinguisher 2 kgs, including strap	1	SG00338
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBXF-83, red door	1	SG02432
Spray and hose: 2 kgs CO <sub>2</sub>	1	SG00382

## Dräger CO<sub>2</sub> Extinguisher 5 kgs B

The CO<sub>2</sub> extinguisher is effective in fighting flammable liquids and electric fires. Carbon dioxide extinguisher works by suffocating the fire. Carbon dioxide displaces oxygen in the air. The extinguishing agent leaves no residue behind when used. CO<sub>2</sub> extinguishers cover type B fires.



### Applications for the marine, inland shipping and offshore market

- electrical switch boards
- bridge
- welding areas

### Features

- carbon dioxide is a clean agent that leaves no traces, thus ideal for fighting fires involving electronic & hi-tech equipment

- allows intermittent and repeated operation
- equipped with a brass valve head complete with an overpressure safety valve
- equipped with a squeeze-type valve, conical snow horn, and carrying handle
- high quality surface treatment and red polyester coating
- to be used with a special marine wall bracket (not included)

### Dräger CO<sub>2</sub> extinguisher 5 kgs B

Designed for marine use

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / COL X-K
Extinguisher	Portable CO <sub>2</sub> Fire Extinguisher
Type	Stored pressure operated
Capacity	5 kgs
Fire class / Rating	89B
Propellant gas	CO <sub>2</sub>
Discharge time	15 seconds
Throw length	4 meters
Working pressure	65 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	CO <sub>2</sub>
Temperature range	-30°C to +60°C
Approx gross weight	14.2 kgs
Approx dispatch weight	14.7 kgs
Approx unit dimension	260 x 140 x 690 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036 MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CO <sub>2</sub> extinguisher 5 kgs B	1	SG00142
Marine bracket for CO <sub>2</sub> 5 kgs	1	SG00337
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBXF-83, red door	1	SG02432
Spray + hose: 5 kgs CO <sub>2</sub>	1	SG00383

## Dräger Foam Extinguisher Composite 6 liter AB (stored pressure)



Dräger foam extinguisher composite 6 liter AB  
Stored pressure

The revolution in portable fire extinguishers: composite extinguishers are the latest development in the quest for durable corrosion resistant and low maintenance extinguishers. The extinguishers have EN3, CE and MED certification and a lifetime of 20 years. Another unique feature: the extinguishing medium in these units needs to be replaced every 10 years as per manufacturer specification. Foam extinguishers cover type A and B fires.

### General description

The red outer HDPE mantle houses a pressure vessel which is manufactured out of HDPE. The valve is supplied in nickel plated brass. Hose clips, squeeze for action handle and carrying handle are supplied in stainless steel. Due to these material and construction choices replacement of the extinguisher caused by corrosion, scratches and dents belong to the past. Resulting into lower lifetime costs. In addition the extinguisher will remain in good condition, offering greater reliability for the user when being deployed in firefighting tasks. These extinguishers are recyclable, reducing waste output at the end of its service life.

### AB foam

AB foam is suitable for fire extinguishing of substances in fire class A (containing carbons) and fire class B (flammable liquids). An additional feature is that the foam is not

conductive to electricity. The foam can be used to a maximum voltage of 1000 V and at a distance of at least 1 meter.

### Applications

These extinguishers are extremely suitable for harsh (outdoor, saline) conditions as found on offshore installations, marine application and moist (production) spaces.

### Features

- 10 year manufacturer guarantee
- replacement of foam once every 10 years
- durable and corrosion resistant
- reliable and ultra-strong composite material
- 100% UV resistant
- ± 15% lighter than conventional extinguishers
- cost reducing
- better overview of cost control
- environmentally friendly
- recyclable product

## TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / P50FM
Extinguisher	Portable foam fire extinguisher
Type	Stored pressure operated
Capacity	6 liter
Fire class / Rating	27A/183B
Propellant gas	Nitrogen
Discharge time	40 seconds
Throw length	4 meters
Working pressure	12 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	Foam
Temperature range	+5°C to +60°C
Approx gross weight	8.5 kgs
Approx dispatch weight	9 kgs
Approx unit dimension	178 x 570 mm (d x h)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 2212

# Dräger Foam Extinguisher Composite 6 liter AB

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger foam extinguisher composite 6 liter AB (stored pressure)	1	SG00167
Bracket for composite powder extinguisher	1	SG00335
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBWE-70, red door	1	SG02423

## Dräger Foam Extinguisher Composite 9 liter AB (stored pressure)



**Dräger foam extinguisher composite 9 liter AB**

Stored pressure

The revolution in portable fire extinguishers: composite extinguishers are the latest development in the quest for durable corrosion resistant and low maintenance extinguishers. The extinguishers have EN3, CE and MED certification and a lifetime of 20 years. Another unique feature: the extinguishing medium in these units needs to be replaced every 10 years as per manufacturer specification. Foam extinguishers cover type A and B fires.

### General description

The red outer HDPE mantle houses a pressure vessel which is manufactured out of HDPE. The valve is supplied in nickel plated brass. Hose clips, squeeze for action handle and carrying handle are supplied in stainless steel. Due to these material and construction choices replacement of the extinguisher caused by corrosion, scratches and dents belong to the past. Resulting into lower lifetime costs. In addition the extinguisher will remain in good condition, offering greater reliability for the user when being deployed in firefighting tasks. These extinguishers are recyclable, reducing waste output at the end of its service life.

### AB foam

AB foam is suitable for fire extinguishing of substances in fire class A (containing carbons) and fire class B (flammable liquids). An additional feature is that the foam is not

conductive to electricity. The foam can be used to a maximum voltage of 1000 V and at a distance of at least 1 meter.

### Applications

These extinguishers are extremely suitable for harsh (outdoor, saline) conditions as found on offshore installations, marine application and moist (production) spaces.

### Features

- 10 year manufacturer guarantee
- replacement of foam once every 10 years
- durable and corrosion resistant
- reliable and ultra-strong composite material
- 100% UV resistant
- ± 15% lighter than conventional extinguishers
- cost reducing
- better overview of cost control
- environmentally friendly
- recyclable product

## TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / P50-9F
Extinguisher	Portable foam fire extinguisher
Type	Stored pressure operated
Capacity	9 liter
Fire class / Rating	34A/183B
Propellant gas	Nitrogen
Discharge time	49 seconds
Throw length	7 meters
Working pressure	12 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	Foam
Temperature range	+5°C to +60°C
Approx gross weight	11.7 kgs
Approx dispatch weight	12.7 kgs
Approx unit dimension	640 x 210 mm (H x D)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 2212/01



# Dräger Foam Extinguisher Composite 9 liter AB

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger foam extinguisher composite 9 liter AB (stored pressure)	1	SG00168
Bracket for composite powder extinguisher	1	SG00335
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBWE-70, red door	1	SG02423

## Dräger Foam Extinguisher 9 liter AB (cartridge)

The Dräger foam extinguisher is a multipurpose fire extinguisher that can be used in burning liquids and solids. The Aqueous Film Forming Foam (AFFF) additive is a blend of perfluorinated and hydrocarbon surfactants. It enables the formation of an aqueous film capable of spreading on the surface of burning fuels, which prevents vapour production and seals the surface from oxygen. Foam extinguishers cover type A and B fires.



**Dräger foam extinguisher 9 liter**  
Internal cartridge operated

### Applications for the marine, inland shipping and offshore market

- engine rooms
- accommodation rooms

### Features

- diecast zinc colour coded head cap
- large neck ring enables servicing and refilling to be conducted with ease
- high extinguishing efficiency
- allows intermittent and repeated operation
- designed with an aluminium alloy head with an overpressure mechanical safety valve
- equipped with a rechargeable internal pressure cartridge

- an AFFF charge is enclosed in a separate internal cartridge, that instantly mixes with the water only at operation
- internally coated with special protective polymer lining, affording full protection against corrosion
- operated with a high pressure rubber hose and pistol for high maneuverability and control
- heat and electricity-isolated operation pistol and corrosion-proof base
- high quality surface treatment and red polyester coating
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance of 1 meter

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / BAF9MED
Extinguisher	Portable Foam Fire Extinguisher
Type	Internal cartridge operated
Capacity	9 liter
Fire class / Rating	AB / 13A 183B
Propellant gas	CO <sub>2</sub>
Discharge time	49 seconds
Throw length	4 meters
Working pressure	12 bar
Suitable for electrical equipment	Up to 1000V, min. distance 1m
Extinguishing agent	AFFF foam
Temperature range	+5°C to 60°C
Approx gross weight	15.7 kgs
Approx dispatch weight	16.7 kgs
Approx unit dimension	300 x 190 x 570 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036, MED

## Dräger Foam Extinguisher 9 liter AB (cartridge)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger foam extinguisher, 9 liter AB (cartridge)	1	SG00157
Marine bracket for foam extinguisher 9 kgs, including strap	1	SG00334
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBXF-83, red door	1	SG02432
Britannia CO <sub>2</sub> Cartridge 75 gr	1	SG00401
Refill for Foam Extinghuiser 9 liter	1	SG01843

## Dräger Foam Extinguisher 6 liter AB (stored pressure)

The Dräger foam extinguisher is a multipurpose fire extinguisher that can be used in burning liquids and solids. The Aqueous Film Forming Foam (AFFF) additive is a blend of perfluorinated and hydrocarbon surfactants. It enables the formation of an aqueous film capable of spreading on the surface of burning fuels, which prevents vapour production and seals the surface from oxygen. Foam extinguishers cover type A and B fires.



**Dräger 6 liter foam extinguisher**  
Stored pressure operated

### Applications for the marine, inland shipping and offshore market

- engine rooms
- accommodation rooms

### Features

- high extinguishing efficiency
- allows intermittent and repeated operation
- chrome-plated brass valve and internal parts for longer serviceability
- pressure gauge for instant pressure indication available

- pressure check valve equipped
- internally coated with special protective polymer lining, affording full protection against corrosion
- high quality surface treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance of 1 meter

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / SORA X-S
Extinguisher	Portable Foam Fire Extinguisher
Type	Stored pressure operated
Capacity	6 liter
Fire class / Rating	AB / 27A 144B
Propellant gas	Nitrogen
Discharge time	22 seconds
Throw length	5 meters
Working pressure	15 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	Water + Foam AFFF
Temperature range	0°C to +60°C
Approx gross weight	10.3 kgs
Approx dispatch weight	10.8 kgs
Approx unit dimension	240 x 155 x 595 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036 MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger foam extinguisher 6 liter AB (stored pressure)	1	01121006
Marine bracket for foam extinguisher 6 liter, including strap	1	SG00334
Cover for fire extinguisher	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBWE-70, red door	1	SG02423

## Dräger Foam Extinguisher 9 liter AB (stored pressure)

The Dräger foam extinguisher is a multipurpose fire extinguisher that can be used in burning liquids and solids. The Aqueous Film Forming Foam (AFFF) additive is a blend of perfluorinated and hydrocarbon surfactants. It enables the formation of an aqueous film capable of spreading on the surface of burning fuels, which prevents vapour production and seals the surface from oxygen. Foam extinguishers cover type A and B fires.



### Applications for the marine, inland shipping and offshore market

- engine rooms
- accommodation rooms

### Features

- high extinguishing efficiency
- allows intermittent and repeated operation
- chrome-plated brass valve and internal parts for longer serviceability
- pressure gauge for instant pressure indication available

- pressure check valve equipped
- internally coated with special protective polymer lining, affording full protection against corrosion
- high quality surface treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance of 1 meter

### Dräger 9 liter foam extinguisher

Stored pressure operated

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / SORA X-S
Extinguisher	Portable Foam Fire Extinguisher
Type	Stored pressure operated
Capacity	9 liter
Fire class / Rating	AB / 27A 183B
Propellant gas	Nitrogen
Discharge time	24 seconds
Throw length	5 meters
Working pressure	15 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	Water + Foam AFFF
Temperature range	0°C to +60°C
Approx gross weight	14.3 kgs
Approx dispatch weight	14.9 kgs
Approx unit dimension	250 x 190 x 610 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036 MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger foam extinguisher 9 liter AB (stored pressure)	1	SG00107
Marine bracket for foam extinguisher 9 liter, including strap	1	SG00334
Cover for fire extinguisher	1	SG00322
Polyethylene fire extinguisher cabinet JBXF-83, red door	1	SG02432
GRP storage cabinet: DMO-35	1	SG02030

# Amerex Watermist Extinguisher 9 liter A (stored pressure)

By the misty effect of the watermist extinguisher, a low electrical conductivity appears which makes extinguishing of electricity fires possible. By the unique cloud radius, there is a very adequate extinguishing with very low collateral damage for Class A fires (solids).



## Applications for the marine, inland shipping and offshore market

- kitchens
- accommodation rooms

## Features

- stainless steel body, painted red and non-magnetic
- brass valve with a protective layer of chromium

- stainless steel handle
- by high quality long life construction
- fire lance with specially developed nozzle
- filled with distilled water
- very fine water mist for quick extinguishing with a very low collateral damage
- the specially developed nozzle extinguish a very fine watermist which is being produced by cooling and eliminating oxygen
- small bracket included

## Amerex watermist extinguisher 9 liter A (stored pressure)

Very low collateral damage for Class A fires

## TECHNICAL SPECIFICATIONS

Manufacturer / Model	Amerex / 272
Extinguisher	Distilled water
Type	Stored pressure
Capacity	9 liter
Fire class / Rating	13A
Propellant gas	Nitrogen
Discharge time	80 seconds
Throw length	4 meters
Working pressure	6.9 bar
Suitable for electrical equipment	Up to 35 KV
Extinguishing agent	De-ionized water
Temperature range	5°C to 60°C
Approx gross weight	11.9 kgs
Approx dispatch weight	12.9 kgs
Approx unit dimension	356 x 178 x 627 mm (l x w x h)
Color	Red
Approvals	CE / BS-EN3 / NL MED

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Amerex watermist extinguisher 9 liter A (stored pressure)	1	SG00192
Cover for fire extinguisher with logo	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylen fire extinguisher cabinet JBXF-83, red door	1	SG02432

## Britannia Water Extinguisher 9 liter A (cartridge)

Water Extinguishers are suitable for class A fires caused by the combustion of solid materials, mainly of organic origin, such as: wood, paper, straw, textiles, coal etc. General-purpose extinguisher.



### Applications for the marine, inland shipping and offshore market

- kitchens
- accommodation rooms

### Features

- die cast zinc colour coded headcap
- large neck ring enables servicing, refilling and internal inspection to be conducted with ease

- 55 gram CO2 cartridge
- all weather service indicator studs
- additional anti-corrosion treatment available
- high quality internal polythene lining to protect against corrosion
- frost protection to -10°C is available

### Britannia Water Extinguisher 9 liter A (cartridge)

#### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / BW9MED
Extinguisher	Water
Type	Internal cartridge
Capacity	9 liter
Fire class / Rating	21A
Discharge time	67 seconds
Throw length	6 meters
Working pressure	12 bar
Suitable for electrical equipment	No
Extinguishing agent	Water
Temperature range	+5°C to +60°C
Approx gross weight	15.5 kgs
Approx dispatch weight	16.5 kgs
Approx unit dimension	568 x 190 x 570 mm (l x w x h)
Color	Red RAL3000 UV protection
Approvals	DIN EN3 & CE 0036, MED

#### ORDER INFORMATION

Description	Unit Sales	Articlenr
Britannia Water Extinguisher 9 liter A (cartridge)	1	SG00182
Cover for fire extinguisher with logo	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBXF-83, red door	1	SG02432

## Amerex Wet Chemical Extinguisher 6 liter AF (stored pressure)

Wet chemical extinguishers are the best restaurant kitchen appliance hand portable fire extinguishers you can purchase. Each model has been tested and approved for the Class K listing by UL specifically for restaurant kitchen hazards. They contain a special potassium acetate based agent. Wet chemical extinguishers cover type A and F fires.



**Amerex wet chemical extinguisher 6 liter AF**  
Excellent for use on all cooking appliances

### Applications for the marine, inland shipping and offshore market

- kitchens
- accommodation rooms

The recent trend to more efficient cooking appliances and use of unsaturated cooking oils dictates the use of a hand portable fire extinguisher with greater fire fighting capacity and cooling effect to combat these very hot and difficult fires.

### Features

- all metal valve construction
- swivel connection on hose allows nozzle to be oriented for proper use

- nozzle grip design with 45° angle for easy "overhead" application
- low PH agent discharged as fine mist helps prevent grease splash and re-flash while cooling the appliance
- precise extinguishing agent application - no dry chemical to clean up
- excellent for use on all cooking appliances including solid fuel charbroilers
- tested on commercial deep fat fryers to ANSI / UL 711 test protocol and safe to use on Class C fires
- class 2A rated to meet fire code occupancy hazard requirements
- bar Coded and Bi-lingual Labels

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Amerex / B260
Extinguisher	Wet Chemical
Type	Stored pressure
Capacity	6 liter
Fire class / Rating	13A / 75F
Propellant gas	Nitrogen
Discharge time	53 seconds
Throw length	3 - 4 meters
Working pressure	6.9 bar
Suitable for electrical equipment	Up to 35 KV
Extinguishing agent	Potassium acetate solution
Temperature range	0°C to +60°C
Approx gross weight	9.6 kgs
Approx dispatch weight	10.6 kgs
Approx unit dimension	483 x 229 x 178 mm (l x w x h)
Color	Red
Approvals	CE, BS-EN3

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Amerex wet chemical extinguisher 6 liter AF (stored pressure)	1	SG00191
Cover for fire extinguisher with logo	1	SG00322
GRP storage cabinet: DMO-35	1	SG02030
Polyethylene fire extinguisher cabinet JBXF-83, red door	1	SG02432



## Powder Wheeled Extinguisher 25 kgs ABC (cartridge)

Wheeled fire extinguishers are being used to extinguish large fires and during situations in which portable fire extinguishers are not sufficient for a fire to extinguish. Its sturdy construction and versatility make the mobile extinguisher rapidly deployed and operated by one person.



### Applications for the marine, inland shipping and offshore market

- engine rooms
- deck rooms
- heli decks
- car decks

### Features

- suitable placing of supporting handle, axis and supporting roll guarantees an optimal center of gravity of the apparatus as well as a good mobility

- quality stoved-enamel lacquer
- easy-running, solid tyred steel wheels
- quick readiness for use and space-saving by placing the hose around the powder container
- 5 meter high pressure hose with textile insert
- interruptible extinguishing pistol enables a dosed fire fighting
- painted inside

**Powder Wheeled Extinguisher 25 kgs ABC**  
External cartridge operated

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	14134
Extinguisher	Dry Chemical Powder
Type	Internal cartridge operated
Capacity	25 kgs
Fire class / Rating	A B C
Propellant gas	CO <sub>2</sub> , 1.3 kgs
Discharge time	25 seconds
Throw length	11 meters
Working pressure	14 bar at 20°C
Suitable for electrical equipment	Up to 1000V
Extinguishing agent	Powder MAP ABC 30
Length discharge hose	5 meters
Diameter wheels	300 mm
Material wheels	Hard rubber / PVC
Temperature range	-30°C to +60°C
Approx gross weight	25 kgs
Approx dispatch weight	60 kgs
Approx unit dimension	535 x 430 x 1020 mm (l x w x h)
Color	Cylinder red RAL 3000
Approvals	EN 1866 / CE, MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Powder Wheeled Extinguisher 25 kgs ABC (cartridge) MED	1	SG00261
Cover for wheeled powder extinguisher	1	18107003
Cover for wheeled powder extinguisher (made heavier by a galvanized chain)	1	SG00327
Cover for wheeled powder extinguisher 25 kg (offshore)	1	18107020
Spare CO <sub>2</sub> cylinder for Powder Wheeled Extinguisher 25 kgs ABC	1	SG00431

## Powder Wheeled Extinguisher 50 kgs ABC (cartridge)

This wheeled extinguisher is designed for professional use under severe circumstances, resulting in a high level of quality and ease of use. The cylinder, CE marked, has the welded frame. Ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation.



**Powder Wheeled Extinguisher 50 kgs ABC**  
External cartridge operated

### Applications for the marine, inland shipping and offshore market

- engine rooms
- deck rooms
- heli decks
- car decks

### Features

- suitable placing of supporting handle, axis and supporting roll guarantees an optimal center of gravity of the apparatus as well as a good mobility

- easy-running, solid tyres steel wheels
- quick readiness for use and space-saving by placing the hose around the powder container
- 5 meter high pressure hose with textile insert
- interruptible extinguishing pistol enables a dosed fire fighting
- with the mark "GS"= tested security
- can be used at low temperatures (-30°C)
- very mobile and easy to operate
- painted inside

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	14163
Extinguisher	Dry Chemical Powder
Type	External Cartridge
Capacity	50 kgs
Fire class / Rating	ABC
Propellant gas	CO <sub>2</sub> , 2 kgs
Discharge time	41 seconds
Throw length	11 meters
Working pressure	14 bar at 20°C
Suitable for electrical equipment	Up to 1000V
Extinguishing agent	Powder MAP ABC 30
Length discharge hose	5 meters
Diameter wheels	300 mm
Material wheels	Hard rubber / PVC
Temperature range	-30°C to +60°C
Approx gross weight	50 kgs
Approx dispatch weight	85 kgs
Approx unit dimension	550 x 450 x 1050 mm (l x w x h)
Color	Cylinder red RAL 3000
Approvals	EN 1866 / CE, MED

## Powder Wheeled Extinguisher 50 kgs ABC (cartridge)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Powder Wheeled Extinguisher 50 kgs ABC (cartridge) MED	1	SG00262
Cover for wheeled powder extinguisher	1	18107003
Cover for wheeled powder extinguisher (made heavier by a galvanized chain)	1	SG00327
Cover for wheeled powder extinguisher 50 kg (offshore)	1	SG00321
Spare CO <sub>2</sub> cylinder for Powder Wheeled Extinguisher 50 kgs ABC	1	SG00432

## Norfolk Powder Wheeled Extinguisher 50 kgs ABC (cartridge)

Wheeled fire extinguishers are being used to extinguish large fires and during situations in which portable fire extinguishers are not sufficient for a fire to extinguish. Its sturdy construction and versatility make the mobile extinguisher rapidly deployed and operated by one person.



### Dry Powder Wheeled Extinguisher 50 kgs ABC

External cartridge operated

#### General

The wheeled extinguisher is filled with 50 kg ABC powder, and fitted with a 5 meter hose and ergonomic pistol fire. These features combined with the high pitch length make the extinguisher flexible and offers the user an efficient and reliable extinguishing agent.

#### ABC powder

ABC powder is suitable for fighting class A fires (carbonaceous), class B fires (flammable liquids) and class C fires (flammable gases). Powder is non-conductive and can be used in the presence of electricity up to 1000 volts at a distance of at least 1 meter. It shuts off the oxygen of the furnace which prevents re-ignition.

#### Applications for marine, inland shipping and offshore market

- machine rooms
- deck
- helideck
- car deck (roro area)

#### Features

- great fire power
- large casting length
- ergonomic extinguishing gun
- 5 meters long extinguishing hose
- easily maneuverable
- balanced and stable
- proven reliability
- suitable for harsh conditions

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia NRA50
Extinguisher	Dry Powder
Type	Internal Cartridge
Capacity	50 kgs
Fire class / Rating	IIB
Propellant gas	CO <sub>2</sub> , 1.35 kgs
Discharge time	35 seconds
Throw length	14 meters
Working pressure	11.5 bar at 20°C
Suitable for electrical equipment	Up to 1000V
Extinguishing agent	Powder ABC
Length discharge hose	5 meters
Diameter wheels	400 mm
Material wheels	Hard rubber
Temperature range	-30°C to +60°C
Approx gross weight	94 kgs
Approx dispatch weight	85 kgs
Approx unit dimension	510 x 610 x 980 mm (w x d x h)
Color	Red (RAL3000)
Approvals	EN 1866 / CE, MED

## Norfolk Powder Wheeled Extinguisher 50 kgs ABC (cartridge)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Norfolk Powder Wheeled Extinguisher 50 kgs ABC (cartridge)	1	SG00252
Cover for wheeled powder extinguisher	1	18107003
Cover for wheeled powder extinguisher (made heavier by a galvanized chain)	1	SG00327
Cover for wheeled powder extinguisher 50 kg (offshore)	1	SG00321
CO2 Cartridge 1,35 kgs for Norfolk NRA50	1	SG00438

## ABS CO<sub>2</sub> Wheeled Extinguisher 10 kgs B

Wheeled extinguishers are designed for professional use under severe circumstances, resulting in a high level of quality and ease of use.



### ABS CO<sub>2</sub> wheeled extinguisher 10 kgs B

Suitable for fires in electrical equipment in fire class B

#### Applications for marine, inland shipping and offshore market

- engine rooms (electrical appliances such as switch boards etc)
- welding areas

#### Features

- very mobile and easy to operate
- excellent quality, therefore a long operational lifetime
- good ergonomics, easy to drive
- can be used at low temperatures (-30°C)

- easy to service
- first in Europe in accordance with the new EN 1866 standards with CE approval
- extremely high ratings on B class fire (liquid fuels)
- ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation
- high performance discharge horn
- highly flexible hose with an excellent resistance

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	ABS
Extinguisher	CO <sub>2</sub>
Capacity	10 kgs
Fire class	144B
Propellant gas	CO <sub>2</sub>
Discharge time	17 seconds
Throw length	4 meter
Working pressure	60 bar at 20°C
Extinguishing agent	CO <sub>2</sub>
Length discharge hose	4 meters
Diameter of wheels	300 mm
Material wheels	Felly: Polypropylene Wheels: Polypropylene
Temperature range	-30°C to +60°C
Approx gross weight	38 kgs
Approx dispatch weight	65.3 kgs
Approx unit dimension	980 x 370 x 1060 mm
Color	Cylinder: Red Frame: Yellow, optional black or red
Approvals	Directive 96/98/EC MED, EN 1866 and with CE-mark

### ORDER INFORMATION

Description	Unit Sales	Articlenr
ABS CO <sub>2</sub> 10 kgs B (stored pressure) MED	1	SG00271
Cover for wheeled CO <sub>2</sub> extinguisher (made heavy by a galvanized chain)	1	SG00328

# ABS CO2 Wheeled Extinguisher 20 kgs B

Wheeled extinguishers are designed for professional use under severe circumstances, resulting in a high level of quality and ease of use.



## ABS CO<sub>2</sub> wheeled extinguisher 20 kgs B

Suitable for fires in electrical equipment in fire class B

### Applications for marine, inland shipping and offshore market

- engine rooms (electrical appliances such as switch boards etc)
- welding areas

### Features

- very mobile and easy to operate
- excellent quality, therefore a long operational lifetime
- good ergonomics, easy to drive
- can be used at low temperatures (-30°C)

- easy to service
- first in Europe in accordance with the new EN 1866 standards with CE approval
- extremely high ratings on B class fire (liquid fuels)
- ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation
- high performance discharge horn
- highly flexible hose with an excellent resistance

## TECHNICAL SPECIFICATIONS

Manufacturer / Model	ABS
Extinguisher	CO <sub>2</sub>
Capacity	20 kgs
Fire class	233B
Propellant gas	CO <sub>2</sub>
Discharge time	32 seconds
Throw length	4 meter
Working pressure	60 bar at 20°C
Extinguishing agent	CO <sub>2</sub>
Length discharge hose	4 meters
Diameter of wheels	300 mm
Material wheels	Felly: Polypropylene Wheels: Polypropylene
Temperature range	-30°C to +60°C
Approx gross weight	70 kgs
Approx dispatch weight	65.3 kgs
Approx unit dimension	970 x 400 x 600 mm
Color	Cylinder: Red Frame: Yellow, optional black or red
Approvals	Directive 96/98/EC MED, EN 1866 and with CE-mark

## ORDER INFORMATION

Description	Unit Sales	Articlenr
ABS CO2 20 kgs B (stored pressure) MED	1	SG00272
Cover for wheeled CO2 extinguisher (made heavier by a galvanized chain)	1	SG00328

## Foam Wheeled Extinguisher 50 liters AB (cartridge)

Wheeled extinguisher is designed for professional use under severe circumstances, resulting in a high level of quality and ease of use. The cylinder, CE marked, has the welded frame. Ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation.



Foam wheeled extinguisher 50 liters AB  
External cartridge

### Applications for marine, inland shipping and offshore market

- engine rooms
- car decks
- heli decks

### Features

- suitable placing of handle and 400 mm wheels + turning little wheel in order to guarantee and optimal stability and easiness of use, as well as a good mobility of the device

- diameter cylinder 315 +0 -15 mm, material AISI 304
- easy running diam. 400 wheels + additional turning wheel for an easy movement
- 5 meters length hose with foam making nozzle and ball valve for the best possible use and effectiveness on the fire by the operator
- 3/4 ball valve at the end of the hose for a dosed projection of the extinguishing agent
- on request available antifreeze -20°C or -30°C
- painted inside

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	14260 3
Extinguisher	AFFF foam
Capacity	50 liter
Fire class / Rating	A B
Propellant gas	CO <sub>2</sub> , 1.3 kgs
Discharge time	47 seconds
Throw length	8 meters
Working pressure	14 bar at 20°C
Suitable for electrical equipment	Not tested
Extinguishing agent	AFFF foam
Length discharge hose	5 meters
Diameter wheels	300 mm
Material wheels	Hard rubber / PVC
Temperature range	+0°C to +60°C
Approx gross weight	50 liter
Approx dispatch weight	85.0 kgs
Approx unit dimension	550 x 455 x 1145 mm (l x w x h)
Color	Cylinder red RAL 3000
Approvals	EN 1866 / CE, MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Foam wheeled extinguisher 50 liters AB (cartridge) MED	1	SG00266
Cover for wheeled foam extinguisher (made heavier by a galvanized chain)	1	SG00327
Cover for wheeled foam extinguisher 45/50 liter, beige strip, made heavier	1	SG00325
Spare CO <sub>2</sub> cylinder for foam wheeled extinguisher 50 liters AB	1	SG00431
Refill 50 liter foam wagon	1	SG00434



## Foam Wheeled Extinguisher 150 liters AB (cartridge)

Wheeled extinguisher is designed for professional use under severe circumstances, resulting in a high level of quality and ease of use. The cylinder, CE marked, has the welded frame. Ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation.



Foam wheeled wxtinguisher 150 liters AB  
External cartridge

### Applications for marine, inland shipping and offshore market

- engine rooms
- car decks
- heli decks

### Features

- suitable placing of handle and 400mm. wheels + turning little wheel in order to guarantee and optimal stability and easiness of use, as well as a good mobility of the device

- cylinder diameter 450 mm, material AISI 304
- easy running diam. 400 wheels + additional turning wheel for an easy movement
- 5 meters length hose with foam making nozzle and ball valve for the best possible use and effectiveness on the fire by the operator
- 3/4 ball valve at the end of the hose for a dosed projection of the extinguishing agent
- on request available antifreeze -20°C or -30°C
- painted inside

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	14284 4
Extinguisher	AFFF Foam, Sealfire
Capacity	150 liter
Fire class / Rating	A IVB
Propellant gas	CO <sub>2</sub> , 3.2 kg
Discharge time	150 seconds
Throw length	8 meters
Working pressure	13 bar at 20°C
Suitable for electrical equipment	Not tested
Extinguishing agent	AFFF Foam
Length discharge hose	5 meters
Diameter wheels	400 mm
Material wheels	Hard rubber / PVC
Temperature range	+0°C to +60°C
Approx gross weight	150 liter
Approx dispatch weight	235 kgs
Approx unit dimension	900 x 700 x 1380 mm (l x w x h)
Color	Cylinder red RAL 3000
Approvals	En 1866 / CE, MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Foam wheeled extinguisher 150 liters AB (cartridge) MED	1	SG00268
Cover for foam extinguisher offshore tyre	1	SG00326
Spare CO <sub>2</sub> cylinder for foam wheeled extinguisher 150 liters AB	1	SG00433
Refill 150 liter foam wagon	1	SG00435

## Norfolk Foam Wheeled Extinguisher 45 liter AB (cartridge)

Wheeled fire extinguishers are being used to extinguish large fires and during situations in which portable fire extinguishers are not sufficient for a fire to extinguish. Its sturdy construction and versatility make the mobile extinguisher rapidly deployed and operated by one person.



Norfolk foam wheeled extinguisher 45 liters AB  
External cartridge

### General

The wheeled extinguisher is filled with 45 liters AB foam and fitted with a 5 meter long hose and ergonomic pistol fire. These features combined with the high pitch length make the extinguisher flexible and offers the user an efficient and reliable extinguishing agent.

### AB foam

AB fire fighting foams are suitable for fighting class A fires (carbonaceous) and class B fires (flammable liquids). The foam can be used in the presence of electricity up to 1000 volts at a distance of at least 1 meter.

### Applications for marine, inland shipping and offshore market

- machine rooms
- accommodation spaces

### Features

- great fire power
- large casting length
- ergonomic extinguishing gun
- 5 meters long extinguishing hose
- easily maneuverable
- balanced and stable
- proven reliability
- suitable for harsh conditions

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia Norfolk / NRAF45
Extinguisher	AFFF Foam
Capacity	45 liters
Fire class / Rating	IIB
Propellant gas	CO <sub>2</sub> 0.8 kgs
Discharge time	60 seconds
Throw length	14 meters
Working pressure	11.5 bar at 20°C
Extinguishing agent	AFFF Foam
Length discharge hose	5 meters
Diameter wheels	300 mm
Material wheels	Hard rubber / PVC
Temperature range	+5°C to +60°C
Approx gross weight	42.2 kg
Approx dispatch weight	88 kgs
Approx unit dimension	510 x 610 x 980 mm (w x d x h)
Color	Red (RAL3000)
Approvals	BS EN1866, MED, CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Norfolk foam wheeled extinguisher 45 liter AB (cartridge)	1	SG00251
Cover for wheeled foam extinguisher (made heavier by a galvanized chain)	1	SG00327
Cover for wheeled foam extinguisher 45/50 liter, beige strip, made heavier	1	SG00325
Spare cartridge, 0.8 kg	1	SG00436

## Dräger High Quality Fire Hose

The lay-flat fire hoses are extremely durable and very flexible to use. This hose is suitable for intensive firefighting. This extruded hoses are resistant to oil, gasoline, salt solutions, acids and chemicals.

### Applications

For intensive use, such as the offshore.

available with Storz pillars and in the color red. Other colors and/or columns on request.

### Features

The high quality hose made of PVC nitrile, has an ozone, chemicals and acids resistant layer. The burst pressure is 50 bar. The rubber liner on the inside is "extruded" with the outside. The standard length is 20 meters. Standard

### Life span

Hoses are available in different qualities. Before purchasing, keep the usage frequency in mind. This will determine the life span of the hose. The Polydur has a long life.



### Dräger high quality fire hose

Good protection against ozone and atmospheric weathering

### TECHNICAL SPECIFICATIONS

Type	Polydur
Material	100% high tenacity synthetic yarn circular woven
Temperature	-35°C to +100°C
Working pressure	17 bar
Bursting pressure	50 bar
Diameter	Ø 52 mm
Length	Standard: 20 meters Other lengths on request
Approvals	DIN 14811 Class 3, BS 6391:1983 Type III, Russian Maritime Register

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Storz - Pro / LM / N66 / 2,0" 20 meter, Red	1	SG00642
Storz - Pro / LM / N66 / 1,5" 20 meter, Red	1	02120072
Storz - Pro / MS / N66 / 2" 20 meter, Red	1	SG00647
Storz - Pro / LM / N66 / 2" 15 meter, Red	1	02120079
Storz - Pro / MS / N81 / 2" 20 meter, Red	1	SG00667
Storz - Pro / LM / N81 / 2,0" 20 meter, Red	1	SG00662
Storz - Pro / LM / N81 / 2,5" 20 meter, Red	1	SG00663
Storz - Pro / LM / N81 / 3,0" 20 meter, Red	1	SG00664
Storz - Pro / Instantaneous BA /2" 20 meter, Red	1	02120088
Storz - Pro / MS / N66 /2" 20 meter	1	02120092
Storz - Pro / MS / N66 /2" 20 meter, Blue	1	02120096
Storz - Pro / MS / N66 /2" 30 meter, Blue	1	02120097
Storz - Pro / USPIN 1.1 / 2" 20 meter	1	02120100

## Dräger Standard Fire Hose

The lay-flat 500 Synthetic hose has a smooth outside PU coated making it more resistant to oils and chemicals and abrasion resistant than uncoated fire hoses. This hose is widely used in marine and offshore.



### Applications

For preventive use, low usage frequency.

pillars and in the color red. Other colors and / or columns on request.

### Features

The synthetic fire hose is a woven synthetic material, has a burst pressure of 40 bar and has a rubber inner lining. The standard length is 20 meters. Standard available with Storz

### Life span

Hoses are available in different qualities. Before purchasing, keep the usage frequency in mind. This will determine the life span of the hose. The synthetic 500 has a medium to long life.

### Dräger standard fire hose

Low friction loss

### TECHNICAL SPECIFICATIONS

Type	Synthetic 500
Material	Synthetic coating
Temperature	-30°C to +80°C
Working pressure	17 bar
Bursting pressure	40 bar
Diameter	1" to 4"
Length	Standard: 20 meters Other lengths on request
Approvals	DIN 14811 Class 3, BS 6391:1983 Type III, Russian Maritime Register

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Storz - Syn / LM / N66 / 2,0" 20 meter, Red	1	SG00542
Storz - Syn / LM / N66 / 1,5" 20 meter, Red	1	SG00541
Storz - Syn / LM / N81 / 2,0" 20 meter, Red	1	SG00562
Storz - Syn / LM / N81 / 2,5" 20 meter, Red	1	SG00563
Storz - Syn / LM / N81 / 3,0" 20 meter, Red	1	SG00564
Storz - Syn / MS / N66 / 1,5" 20 meter, Red	1	SG00546
Storz - Syn / MS / N81 / 2,0" 20 meter, Red	1	02110061
Storz - Syn / MS / N81 / 1,5" 20 meter, Red	1	SG00566

# Dräger Budget Fire Hose

Uncoated delivery hose for fire brigades and industry.



## Dräger budget fire hose

Smooth surface and low friction loss

### Applications

- municipal fire brigades
- industrial fire brigades
- shipboard
- refineries
- construction sites

### Features

- jacket: 100% polyester high tenacity yarn, circular woven, warp threads 2-ply twisted, twill weave. Max. change in length: 3%. Max. change in diameter: 3%
- inner lining: two-component system consisting of black SBR-synthetic rubber and white NBR-synthetic adhesive

- inner lining: resistant to ozone and to external contact with oil products
- produced with a very low twist
- good abrasion resistance and long service life
- external resistance to oil, fuel and chemical products
- low friction loss
- aging and ozone resistant, weather resistant
- lightweight and flexible, kink resistant
- small coil diameter
- minimum maintenance
- easy to repair

## TECHNICAL SPECIFICATIONS

Type	Top synthetic N/40
Material	Uncoated natural white
Temperature range	-30°C to +80°C
Working pressure	13 bar
Bursting pressure	40 bar
Diameter	Ø 52 mm
Length	Standard: 20 meters Other lengths on request
Approvals	DIN EN

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Storz LM / N66 / 2" 20 meter, White	1	SG00551

## Multi-Purpose Spray Nozzle

A multi-purpose fog nozzle with very good performance for both fog and jet.



### Features

- easy to handle multi purpose spray nozzle
- ideal for fire fighting departments and general industrial use
- to be used with or without man shield

- three spray positions

### Delivery

Delivery excluding connection.

### Multi-purpose spray nozzle

Easy to handle

### TECHNICAL SPECIFICATIONS

Type	CM aluminium	CMM
Material	Aluminium alloy	Aluminium alloy
Switch position	Stop - jet - spray	Stop - jet - spray
Connection	G 2" A	G 2" A
Boring	12 x 9	12 x 9
Weight	1.16 kgs	1.50 kgs
Approvals	DIN 14365	DIN 14365

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Multi-Purpose Spray Nozzle, with man shield, LM-2"	1	SG01002

## Unifire Spray Nozzles

The Unifire V-nozzle series is a multi-purpose fog nozzle with very good performance for both fog and jet. The V-nozzles are available in both long and short versions. The V-nozzle can be combined with an attachable foam-tube for heavy and medium foam.



### Features

The Unifire V-nozzle is proven to be very reliable. It's designed for heavy professional use and no maintenance is required. The only spare part is the baffle and its crew.

The Unifire V-nozzles are available in sizes 7, 10, 12,14,16,18 and 20.

### Material

The nozzles is made of chrome plated brass, red plastic cover and rubber bumper head.

### Delivery

Delivery excluding connection.

### Unifire V-12 nozzle

Multi-purpose fog and jet nozzle

### TECHNICAL SPECIFICATIONS

Fog 90°	L/min M
Pressure 2 bar	184 / 10
Pressure 6 bar	325 / 13
Pressure 10 bar	400 / 14
Positions	stop - jet - spray
Connection	G2"A
Material	Chrome plated brass, red plastic cover and rubber bumper head
Approvals	Lloyd, Det Norske Veritas, Bureau Beritas, American Bureau of Shipping etc.

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Unifire spray V-12 Nozzle, jet / foam, 2"	1	SG01011
Unifire V-16 Nozzle, jet / foam	1	SG01012
Unifire V-20 Nozzle, jet / foam	1	SG01013

## POK 400 Spray Nozzle

We believe that POK products have the ability to provide firefighters all over the world the proper tools to save lives and to minimize property damage.



**POK 400 DIN Spray Nozzle**  
Tough construction

POK nozzles are quality products that have been thoroughly tested. They meet the current standards and requirements of the daily (professional) user. Both standard and specialized nozzles are included in the range. Depending on the application, on-site use, performance, characteristics and manufacturing material, the appropriate nozzle is to be chosen. The final result of POK products comes after extensive testing of the products in consultation with users. This ensures that POK products meet the highest quality and usability.

### Features

- tough anodized aluminium construction
- swivel inlet
- compact size for easy stowage
- meets the needs of Forestry and Rural Fire brigades where water conservation is desirable
- multi flow selection
- pattern detents for positive positioning
- change flow without changing pattern and flush without shutting down
- excellent for application of A class foam
- new inlet filter mesh prevents blockages caused by stones
- each nozzle etched with a unique serial number for identification

### TECHNICAL SPECIFICATIONS

Material	Aluminium alloy, stainless steel
Spray	10 m, full jet, spray 110°, flush
Full stray	34 meters
Connection	G2"A
Adjustable	60, 130, 250, 400 l/min at 6 bar
Approvals	DIN 14367, DIN 14367-6-400-3-C

### ORDER INFORMATION

Description	Unit Sales	Articlenr
POK: Debikador Spray Nozzle 400 - 2" DIN-14367	1	SG01021



# Akron 3020 Spray Nozzle

The Akron 3020 spray nozzle is a combination fog and straight stream nozzle designed for more efficiency with AFFF or water on board of ships.



**Features**

- brass construction
- self-adjusting seats
- molded teeth

- massive rubber-like bumper, handle and pistol grip
- constant gallonage in all fog and straight stream patterns
- flush without shutting down

**Akron 3020 spray nozzle**  
Water or foam spray nozzle

**TECHNICAL SPECIFICATIONS**

Length	219 mm
Weight	3.5 kgs
Inlet size	38 mm
Flow at 100 PSI	GPM 95, LPM 360
Approvals	DIN 14367, DIN 14367-6-400-3-C

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Akron 3020 Spray Nozzle 1,5"	1	SG01032

## HS nozzles D10, D12, D16, D20

Hollow stream nozzles with shut-off for the delivery of firefighting water in the form of full jet and selectable spray jet.



### Features

- HS nozzles can be conveniently and continuously adjusted from completely closed via full jet to spray jet between 0 - 120° by twisting the rubber coated head.
- Switching sequence: Closed – full jet – spray jet.
- The spray teeth have flat deflection surfaces on the inside and produce a spray the centre of which is directed forwards. This results in a large spray jet throw distance. Large drops for reach, small drops for cooling. As a result, universal and effective use of the HS nozzles is possible.

### Advantages

- Low weight
- Absolute corrosion resistance to seawater
- The simple design means the nozzle is not prone to repair
- Low operating forces
- Extremely sturdy
- Completely maintenance-free

### Structure of HS nozzles

All bills of material have an identical structure. The only difference between types HS10, 12, 16, 20 is that they have different valve plates at the front. These are marked at the front as "D10", "D12", "D16" and "D20".

### HS nozzles D10, D12, D16, D20

Hollow stream nozzles

### TECHNICAL SPECIFICATIONS

Operating head	Rubber (NBR) and chrome-plated brass
Barrel	Extremely impact-resistant plastic (POM)
Valve plate	Polyamide
Valve rod	Stainless steel
Dimensions	with C-type adapter: 347 x 98 x 98 mm
Weight	1.1 kg (aluminium) 1.6 kg (brass)
Flow rate at 6 bar - full jet, litres/min - throw distance (meters)	HS10 - 160-24 HS12 - 230-28 HS16 - 330-30 HS20 - 380-32
Flow rate at 6 bar - spray jet, litres/min - throw distance (meters)	HS10 - 440-4 HS12 - 460-4.5 HS16 - 470-4.5 HS20 - 470-4.5
Flow rate at 2 bar - full jet, litres/min - throw distance (meters)	HS10 - 90-16 HS12 - 130-17 HS16 - 170-18 HS20 - 220-21
Flow rate at 2 bar - spray jet, litres/min - throw distance (meters)	HS10 - 250-4 HS12 - 265-4.5 HS16 - 275-4.5 HS20 - 275-4.5

### ORDER INFORMATION

Description	Unit Sales	Articlenr
HS nozzles D10, D12, D16, D20	1	SG01051

## Delta Low Expansion Foam HV225 / S

Delta's "V" range of foam branch pipes are designed for the foams of the late '90s. All purpose alcohol resistant, FFFP and AFFF foams.



### Delta HV225 Branch pipe

Self inducing models

#### General information

The new style branch pipe is designed to first expand the foam and then accelerate it to high velocity producing long throws beyond the capability of many older designs.

Delta's branch pipes are designed to match Delta variable inline foam inductors or equivalent types.

#### Features

- long throw
- self inducing models
- designed for all new technology foams
- all international inlets

- dot/Lloyds certified
- optional on/off ball valve available

#### Construction

- body: Light Alloy - internally and externally powder coat
- finish: Epoxy Polyester International Orange
- nozzle: Light Alloy
- inlet: HV 2" BSP Male

A wide range of International fittings are available as an option.

Self inducing models are supplied with quick release pick-up and stainless steel dip tube.

### TECHNICAL SPECIFICATIONS

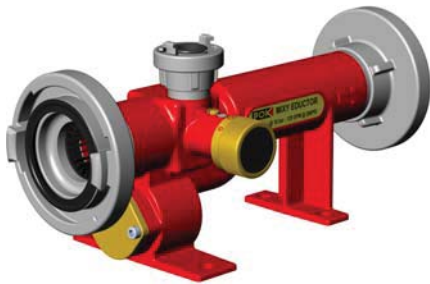
Nominal flow (L/min)	5 bar - 200 7 bar - 225
Foam Expansion	6-10
Range (metres) at 7 Bar	18-22
Length	740 mm
Weight	2.2 kgs
Approvals	Lloyds certified and D.O.T. approved (M.S.A.) for marine use

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Delta Low expansion foam HV225 / S	1	SG01041

# POK Mixy Educator

Body manufactures in bronze with an inlet filter metering valve 0 to 6% with by-pass. The pick up tube needs to be ordered separately.



## Features

The foam mixer works on the Venturi principle. The water pressure in the state, creates a vacuum that causes the suction of the liquid. The device has a check valve ball which prevents any return of water into the tank of foam concentrate.

A dispenser valve allows you to adjust the proportion of water / foam from 0% to 6%.

A valve device ensures constant mixing rates, even when the pressure varies.

**POK Mixy Educator**  
Tough construction

## TECHNICAL SPECIFICATIONS

Setting aspiration	0 - 6%
Pressure drop	35%
Capacity	200 liters, 400 liters or 800 liters per minute

## ORDER INFORMATION

Description	Unit Sales	Articlenr
POK Mixy Educator, 200 liter p/m, excluding coupling	1	SG01101
POK Mixy Educator, 400 liter p/m, excluding coupling	1	SG01102
POK Mixy Educator, 800 liter p/m, excluding coupling	1	SG01203
Pick up tube, 1.5 meters LM-N31 including suction bar	1	SG01211
Pick up tube, 1.5 meters LM-N31 excluding suction bar	1	SG01212

# Couplings and o-rings

To couple a Storz connection, the two opposing couplings are pressed together such that the hooks of each one are inserted into the slots in the flange of the other. Then they are rotated in opposite directions until they are tight, or latched engages.



### Features

The Storz couplings create a water-tight connection between the internal packing gaskets. To uncouple them, the latches are released and the couplings are turned in the opposite directions from coupling, and then

separated when the hooks and slots are aligned.

Special wrenches are designed for assisting with Storz connectors.

### Couplings and o-rings

Various sizes available

### ORDER INFORMATION

Storz name	NOK	Male/Female thread	Unit Sales	Ordernr.
<b>Storz connector with BSP thread, light metal with rubber seal</b>				
C	66	2.0"	1	SG00727
65	81	1.5"	1	SG00733
65	81	2.0"	1	SG00734
65	81	2.5"	1	SG00735
<b>Storz connector with male thread BSP, light metal with rubber seal</b>				
D	31	1.0"	1	08113002
65	81	2.0"	1	SG00774
65	81	2.5"	1	SG00775
<b>Storz hose connector included, light metal with rubber seal</b>				
C, hose adapter Ø 52 mm, L 90 mm	66	2.0"	1	SG00827
65, hose adapter Ø 52 mm, L 90 mm	81	2.0"	1	SG00834
65, hose adapter Ø 65 mm, L 90 mm	81	2.5"	1	SG00835
<b>Storz blind lid, light metal with rubber seal</b>				
C			1	SG00704
65			1	SG00706
<b>Storz rings, Perbunan</b>				
C	66		1	SG00864
65	81		1	SG00865

# Coupling Spanners

Couplings spanners are used to attach fire hoses to hydrants, spray nozzles, monitors or other equipment. Coupling spanner are available for o.a. Storz couplings.



**Features**

- galvanized steel
- insulated hand grip

**Coupling Spanners**

Available for all Storz couplings

**TECHNICAL SPECIFICATIONS**

Sizes	For all B and C type of Storz couplings Other dimensions on request
Warranty	12 months

**ORDER INFORMATION**



Coupling type	Nakajama 1 1/2" (40a), 61 mm	Nakajama, 2" (50a), 72 mm	Nakajama, 2 1/2" (65a), 91 mm	PINLUG, R2.1/2"	Storz-spanner: not isolated BC, DIN 14829
Articlenr.	08143616	08143615	08143614	08143109	08117001



Coupling type	Storz-spanner: isolated BC, DIN 14822	Storz-spanner: isolated ABC, DIN 14822
Articlenr.	SG00892	08117004

# Shore connection - SM029

Connection to overcome international differences in couplings.

**Features**

- complete with bolts and nuts



**International Shore Connection**

connection to overcome international differences in couplings

**TECHNICAL SPECIFICATIONS**

Flange	178 mm
Material	Bronze
Thread	Bsp male

**ORDER INFORMATION**



Coupling type	International shore/wall connection: 2 1/2" MS	International shore/wall connection 2" MS
Articlenr.	09180025	09180026

# Monitor TKW 3000

The TKW monitor is a good alternative for the roll-out hoses on deck. This solution increases the safety of the crew on board.



## Monitor TKW 3000

Easy to install, one man operation

### Applications

- inland shipping

### Features monitor

- deployable, both manned and without crew
- 360° rotation
- rotation, both horizontal as vertical

### Features branch pipe POK 400 spray nozzle

- adjustable spray pattern
- diameter spray nozzle 2"
- maximum spray: 110°
- connection 3" DIN
- POK branch pipe 400 DIN EN 15182-2

### Advantages

- easy to install semi-permanent arrangement
- quick response time in case of an emergency
- secure, one man operation
- the possibility of unmanned operation reduces dangerous situations for the crew
- more time to assist other crew members and emergency services
- increased safety level of the crew, less obstacles (hoses) on the deck
- throw length depends on pump capacity
- optional: foam
- from January 2013 ADN approval
- allowed at several terminals

## TECHNICAL SPECIFICATIONS

Material	Aluminium
Color	Red
Lenght incl. branch pipe	850 mm
Lenght excl. branch pipe	560 mm
Width	390 mm
Max. flow	3.000 lpm @ 7 bar
Inlet	flange DN 80, PN 16

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Monitor TKW 3000	1	SG01225
POK: Debikador Spray Nozzle 400 - 2" DIN-14367	1	SG01021
Adapter 2" Bi/2,5" Bi Aluminium	1	08180006



# Dräger firefighting monitors

Our robust range of various flow firefighting monitors cover fixed monitors for a mixture of fire suppression needs. Offering a variety of manual monitors, self-oscillating monitors, electric monitors, electro-hydraulic monitors with accompanying monitor nozzles, monitor towers/ turrets, trailers and control panels. The fire monitors are available with bronze body as standard it is possible to have the full casting in Nickle Aluminium Bronze suitable for being used with sea water or water foam solution within harsh industrial environments, chemical plants and offshore applications.



**Applications for the marine, inland shipping and offshore market**

- helideck
- foam firefighting
- general fire protection on multiple locations

**Features**

- bronze or Nickle Aluminium Bronze body

- various configurations from manual to electro hydraulic
- various nozzle selections including spray/fog and auto aspirating
- various options such as turrets, supports and oscillating mechanisms
- various remote control options including stationary and wireless
- various models CE and ATEX approved

**Dräger firefighting monitors**

To be used within harsh environments

**TECHNICAL SPECIFICATIONS**

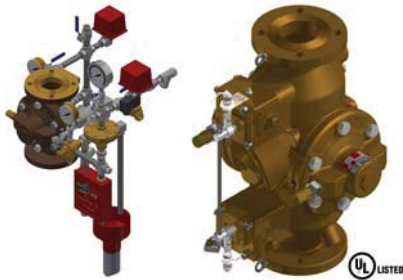
Manufacturer	SA Fire
Materials	bronze / nickle aluminium bronze
Control	manual / electric / electric + hydraulic
Capacity	up to 20.000 L/min
Size	up to 6"
Connections	ANSI / UNI
Options	non-standard painting systems on request
Approvals	ATEX / CE

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Dräger Firefighting Monitors	1	On request

## Dräger fire protection deluge valves

The deluge valves are able to control highly pressurised water flow in deluge, preaction, pressure reducing and ON/OFF fire protection systems. The double chamber deluge valves (with a fully redundant architecture) are compatible with hydraulic, electric, electro-pneumatic or pneumatic release systems and ensure a low probability of failure on demand. Both single and double chamber valves are available in Nickel Aluminium Bronze with Nickel Aluminium Bronze/ AISI 316L/ Monel K400 trim. All valves are in line with NFPA guidelines with UL listing, SIL 2 and SIL 3 on selected valves.



### Dräger fire protection deluge valves

To control highly pressurised water flow

#### Applications for the marine, inland shipping and offshore market

- deluge systems
- heli deck
- foam fire fighting
- general fire protection on multiple locations

#### Features

- double chamber valves allow inline maintenance and overcome double failure
- body materials to be selected among: nickel aluminium bronze ASTM B14C958000, bronze EN 1982 – CC491K

- or stainless steel AISI 316 ASTM A351 Gr.CF8M
- diaphragm material: EPDM fabric reinforced
- nuts and bolts material: stainless steel AISI 316
- flanges ANSI B16.24 or UNI EN 1092-
- water temperature: from 0,5 °C to 90°C
- validation certificate for SIL 3 systems issued by Bureau Veritas (Double chamber)
- UL Listed (Double chamber under application)

### TECHNICAL SPECIFICATIONS

Manufacturer	SA Fire
Materials	nickle aluminium bronze ASTM B148 C95800, bronze EN 1982 - CC491K, stainless steel AISI 316 ASTM A351 Gr.CF8M
Control	electric / electric + pneumatic / ON / OFF
Size	up to 8"
Connections	ANSI / UNI
Options	pressure reducing trims, diaphragm position monitoring system proximity sensors for monitoring the position of the in-built isolation valves

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Fire Protection Deluge Valves	1	On request

# Dräger foam proportioning equipment

Dräger foam equipment solutions include bladder tanks, branch pipes, foam pourers, foam chambers, pump skids, portable foam trailers and foam concentrates as well as all the complimentary accessories. The fire suppression equipment we offer delivers effective fire protection through a series of low/ medium/ high expansion foam systems which are in accordance with NFPA guidelines. Each piece is designed and manufactured with care. These solutions are suitable for special hazard environments and are widely used in chemical, petrochemical, pharmaceutical industries.



### Applications for the marine, inland shipping and offshore market

- deluge systems
- heli deck
- foam fire fighting
- general fire protection on multiple locations

### Features

- bladder tanks
- atmospheric tanks
- inline indicators
- mixers
- proportioners
- branch pipes
- available in various materials
- complete system design
- engineering and calculations

**Dräger foam proportioning equipment**  
Complete range of foam equipment

## TECHNICAL SPECIFICATIONS

Manufacturer	SA Fire
Materials	bronze / stainless steel / various
Capacity	up to 20.000 liters
Connections	ANSI / UNI
Options	various material selections

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Foam System Components	1	On request

## Dräger fire spray nozzles

The range of water and foam nozzles are the effective first line of fire suppression. Our nozzles are used in deluge water spray systems designed for cooling, vapour containment and water curtains. We also offer reliable average and high velocity nozzles as well as nozzles for low, medium and high expansion foam applications ensuring activation where needed to stop fire from spreading.



### Applications for the marine, inland shipping and offshore market

- all the protected areas
- foam fighting

### Features

- stainless steel, bronze, nickle aluminium bronze body

- various threads
- various inlet sizes
- various dispersion angles
- suitable execution for external installation in marine environment and operation with sea water and foam solutions

### Dräger fire spray nozzles

Effective first line of suppression

### TECHNICAL SPECIFICATIONS

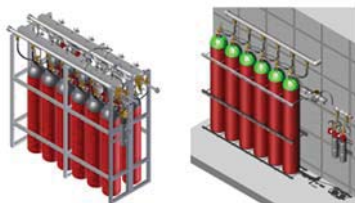
Manufacturer	SA Fire
Materials	stainless steel / bronze/ nickle aluminium bronze
Velocity	high / medium and low
Threads	BSP and NPT
Flow rates	Custom flow rates / K factors

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Fire Spray Nozzles	1	On request

# Dräger gaseous fire suppression systems

Providing gas based fire suppression systems and all supporting hardware approved to EN12094 and in line with NFPA guidelines. Our systems ensure total flooding and are extremely effective at suppressing fire. We can supply accessories needed for complete systems including valves, weighing systems, electric actuators, SIL 2, odorisers, control panels, cylinder racks and cabinets ensuring a highly reliable fire suppression unit.



### Applications for the marine, inland shipping and offshore market

- offshore platforms
- FPSO's
- gas turbines
- generators
- IT server farms
- electric rooms

### Features

- CO2 and Inergen solutions
- skid supplied with various options including heating and lighting
- monitoring system for filling
- actuation with external cylinder or electro magnetic
- various other option including painting and multi zone systems
- various manifold selections
- various hose selections

### Dräger gaseous fire suppression systems

Extremely effective at suppressing fire

### TECHNICAL SPECIFICATIONS

Manufacturer	SA Fire
Storage	open rack or closed cabinet
Installation areas	safe, zone 1 and 2 areas
Cylinder volumes	60, 67.5 and 200 liters
Valve materials	brass and stainless steel
Declaration of conformity	97/23/CE - PED 305/2011 - CPR

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Gaseous Fire Suppression Systems	1	On request

## Bio-Ex Filmopol 1x3 LT15



FILMOPOL 1X3LT15 is a fluorosynthetic foam AFFF-AR 1X3. The film-forming property AFFF gives to FILMOPOL 1X3LT15 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air. The Alcohol-Resistant property produces a thick layer – skin – if applied on any kind of fuels. The peculiar nature of our fluoropolymer gives outstanding burnback resistance.

### Applications

FILMOPOL 1X3LT15 can be used with tap water, sea water and brackish water at 1% on hydrocarbon and at 3% on polar solvents fires as well as on special chemicals : acids, HF, HCl, amines, Butadiene, CS<sub>2</sub>. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

### Pseudoplastic

FILMOPOL 1X3LT15 is pseudoplastic: its viscosity decreases when it is agitated. This

property authorizes its use even at low temperature and low pressure.

### Foaming power

FILMOPOL 1X3LT15 is usable at Low, Medium and High Expansion.

### Fuel fires

FILMOPOL 1X3LT15 is efficient on hydrocarbon and polar solvents fires.

### Environment

FILMOPOL 1X3LT15 is easily biodegradable.

## TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Filmopol 1X3LT15
Appearance	white gel
Specific gravity at 20°C	1.03 ± 0.02 kg/dm <sup>3</sup>
Ph at 20°	7.0 ± 1.0
Viscosity at 20°C (mPa.s)	2300 ± 200 mPa.s
Freezing point	-15°C
Temperature of use	+13°C / + 50°C
Surface tension at 1% (mN/m)	16 ± 2 mN/m
Interfacial tension at 1% (mN/m)	2 ± 1 mN/m
Foam Quality at 1%	
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25 %	> 10 minutes
Medium expansion	> 30, foam expansion values depend on the equipment
Foam Quality at 3%	
Low expansion	> 8, foam expansion values depend on the equipment
Drainage time 25 %	> 30 minutes
Medium expansion	> 100, foam expansion values depend on the equipment
High expansion	> 600, foam expansion values depend on the equipment

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Filmopol-AR: LT151x3 - 20 liter	1	25121031

# Bio-Ex Flufoam 1

FLUOFOAM 1 is a fluorosynthetic foam AFFF, based on the combination of surfactants selected for their foaming property and their resistance to dehydration and heat. The film-forming property AFFF gives to FLUOFOAM 1 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air.



## Bio-Ex Flufoam 1

Efficient on all hydrocarbon fires

### Applications

FLUOFOAM 1 can be used with tap water, sea water and brackish water at 1% on hydrocarbon fires. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

### Foaming power

FLUOFOAM 1 is usable at Low Expansion. This fluid foam is not contaminated on hydrocarbons and enables a forceful

application. FLUOFOAM 1 is usable at Medium Expansion to create a foam blanket to protect against burnback.

### Fuel fires

FLUOFOAM 1 is efficient on all hydrocarbon fires, such as diesel, kerosene, petrol

### Environment

FLUOFOAM 1 is easily biodegradable.

## TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Flufoam 1
Appearance	yellow liquid
Specific gravity at 20°C	1.02 ± 0.02 kg/dm <sup>3</sup>
pH at 20°C	8.0 ± 1.0
Viscosity at 20°C	6 ± 2 cStokes
Sediments	0%
Surface tension at 6%	17 ± 2 mN/m
Interfacial tension at 6%	3 ± 1 mN/m
Freezing point	-20°C
Temperature of use	-15°C to +50°C
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25%	> 2 minutes
Medium Expansion	> 40, foam expansion values depend on the equipment
Approvals	EN 1568-3

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Flufoam: 1% - 20 liter	1	SG01911

## Bio-Ex Hydropol 3

HYDROPOL 3 is a fluorosynthetic foam AR 3X3. The Alcohol Resistant property produces a thick layer – skin – if applied on any kind of fuels. The peculiar nature of our fluoropolymer gives outstanding burnback resistance. HYDROPOL 3 is pseudoplastic: its viscosity decreases when it is agitated. This property authorizes its use even at low temperature and low pressure.



### Applications

HYDROPOL 3 can be used with tap water, sea water and brackish water at 3% on hydrocarbon and polar solvents fires as well as for the keeping of gaseous fumes : acids, HCl, NH<sub>3</sub>. in Medium Expansion. It is suitable with all kind of known equipment.

### Foaming power

HYDROPOL 3 is usable at Low, Medium and High Expansion.

### Fuel fires

HYDROPOL 3 is efficient on hydrocarbon and polar solvents fires. HYDROPOL 3 can keep its water for a very long period. This outstanding property makes it highly efficient on polar solvents fires.

### Environment

HYDROPOL 3 is easily biodegradable.

## TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Hydropol 3
Appearance	yellow gel
Specific gravity at 20°C	1.05 ± 0.02 kg/dm <sup>3</sup>
Ph at 20°	7.0 ± 1.0
Viscosity at 20°C (mPa.s)	1500 ± 200 mPa.s
Sediments	< 0.1 %
Surface tension at 3% (mN/m)	23 ± 2 mN/m
Freezing point	-15°C
Temperature of use	-10°C + 50°C
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25 %	> 10 minutes
Medium expansion	> 50, foam expansion values depend on the equipment
High expansion	> 600, foam expansion values depend on the equipment

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Hydropol-AR: 3% per liter	1	SG01934
Bio-Ex Hydropol-AR: 3% per 20 liter per can	1	SG01932



## Bio-Ex Filmopol 3

FILMOPOL 3 is a fluorosynthetic foam AFFF-AR 3X3. The film-forming property AFFF gives to FILMOPOL 3 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air. The Alcohol-Resistant property produces a thick layer – skin – if applied on any kind of fuels. The peculiar nature of our fluoropolymer gives outstanding burnback resistance.



### Bio-Ex Filmopol 3

Efficient on hydrocarbon and polar solvents fires

#### Applications

FILMOPOL 3 can be used with tap water, sea water and brackish water at 3% on hydrocarbon and polar solvents fires as well as on special chemicals : acids, HF, HCl, amines, Butadiene, CS<sub>2</sub>. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

#### Pseudoplastic

FILMOPOL 3 is pseudoplastic: its viscosity decreases when it is agitated. This property

authorizes its use even at low temperature and low pressure.

#### Foaming power

FILMOPOL 3 is usable at Low, Medium and High Expansion.

#### Fuel fires

FILMOPOL 3 is efficient on hydrocarbon and polar solvents fires.

#### Environment

FILMOPOL 3 is easily biodegradable.

### TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Filmopol 3
Appearance	white gel
Specific gravity at 20°C	1.00 ± 0.02 kg/dm <sup>3</sup>
Ph at 20°	7.0 ± 1.0
Viscosity at 20°C (mPa.s)	2300 ± 200 mPa.s
Sediments	<0.1%
Surface tension at 3% (mN/m)	16 ± 2 mN/m
Interfacial tension at 3% (mN/m)	2 ± 1 mN/m
Freezing point	0°C
Temperature of use	+2°C / + 50°C
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25 %	> 10 minutes
Medium expansion	> 30, foam expansion values depend on the equipment
High expansion	> 400, foam expansion values depend on the equipment
Approvals / standards	EN 1568-3, EN 1568-4, Lastfire certificate, Bureau Veritas certificate

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Filmopol-3 AR: 3% - 25 liter per can	1	25121035

## Bio-Ex Filmopol 3x3

FILMOPOL 3LT15 is a fluorosynthetic foam AFFF-AR 3X3. The film-forming property AFFF gives to FILMOPOL 3LT15 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air. The Alcohol-Resistant property produces a thick layer – skin – if applied on any kind of fuels. The peculiar nature of our fluoropolymer gives outstanding burnback resistance.



### Bio-Ex Filmopol 3

Efficient on hydrocarbon and polar solvents fires

#### Applications

FILMOPOL 3LT15 can be used with tap water, sea water and brackish water at 3% on hydrocarbon and polar solvents fires as well as on special chemicals: acids, HF, HCl, amines, Butadiene, CS<sub>2</sub>. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

#### Pseudoplastic

FILMOPOL 3LT15 is pseudoplastic: its viscosity decreases when it is agitated. This

property authorizes its use even at low temperature and low pressure.

#### Foaming power

FILMOPOL 3LT15 is usable at Low, Medium and High Expansion.

#### Fuel fires

FILMOPOL 3LT15 is efficient on hydrocarbon and polar solvent fires.

#### Environment

FILMOPOL 3LT15 is easily biodegradable.

### TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Filmopol 3 LT15
Appearance	white gel
Specific gravity at 20°C	1.03 ± 0.02 kg/dm <sup>3</sup>
Ph at 20°	7.0 ± 1.0
Viscosity at 20°C (mPa.s)	2300 ± 200 mPa.s
Sediments	<0.1%
Surface tension at 3% (mN/m)	16 ± 2 mN/m
Interfacial tension at 3% (mN/m)	2 ± 1 mN/m
Freezing point	-15°C
Temperature of use	-13°C / + 50°C
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25 %	> 10 minutes
Medium expansion	> 30, foam expansion values depend on the equipment
High expansion	> 400, foam expansion values depend on the equipment
Approvals / standards	EN 1568-3, EN 1568-4, Lastfire certificate, Bureau Veritas certificate

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Filmopol-3 AR: 3% - 20 liter per can	1	SG01951
Bio-Ex Filmopol-AR: 3% - 200 liter per can	1	SG01952

## Bio-Ex Fluofoam 3

FLUOFOAM 3 is a fluorosynthetic foam AFFF, based on the combination of surfactants selected for their foaming property and their resistance to dehydration and heat. The film-forming property AFFF gives to FLUOFOAM 3 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air.



### Bio-Ex Fluofoam 3

Efficient on all hydrocarbon fires

#### Applications

FLUOFOAM 3 can be used with tap water, sea water and brackish water at 3% on hydrocarbon fires. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

#### Foaming power

FLUOFOAM 3 is usable at Low Expansion. This fluid foam is not contaminated on hydrocarbons and enables a forceful

application. FLUOFOAM 3 is usable at Medium Expansion to create a foam blanket to protect against burnback.

#### Fuel fires

FLUOFOAM 3 is efficient on all hydrocarbon fires, such as diesel, kerosene, petrol.

#### Environment

FLUOFOAM 3 is easily biodegradable.

### TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Fluofoam 3
Appearance	yellow liquid
Specific gravity at 20°C	1.01 ± 0.02 kg/dm <sup>3</sup>
pH at 20°C	8.0 ± 1.0
Viscosity at 20°C	4 ± 2 cStokes
Sediments	0%
Surface tension at 3%	17 ± 2 mN/m
Interfacial tension at 3%	2 ± 1 mN/m
Freezing point	-5°C
Temperature of use	0°C to +50°C
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25%	> 2 minutes
Medium Expansion	> 40, foam expansion values depend on the equipment
Approvals	EN 1568-3, Bureau Veritas certificate

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Fluofoam: 3G% / LT15 - 20 liter, Freeze protected -15°C	1	SG01921
Bio-Ex Fluofoam: 3% - 20 liter	1	SG01915
Bio-Ex Fluofoam: 3% - 200 liter	1	SG01916

## Bio-Ex Flufoam 6

FLUOFOAM 6 is a fluorosynthetic foam AFFF, based on the combination of surfactants selected for their foaming property and their resistance to dehydration and heat. The film-forming property AFFF gives to FLUOFOAM 6 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air.



### Bio-Ex Flufoam 6

Efficient on all hydrocarbon fires

#### Applications

FLUOFOAM 6 can be used with tap water, sea water and brackish water at 6% on hydrocarbon fires. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

#### Foaming power

FLUOFOAM 6 is usable at Low Expansion. This fluid foam is not contaminated on hydrocarbons and enables a forceful

application. FLUOFOAM 6 is usable at Medium Expansion to create a foam blanket to protect against burnback.

#### Fuel fires

FLUOFOAM 6 is efficient on all hydrocarbon fires, such as diesel, kerosene, petrol.

#### Environment

PROPOL 6 is easily biodegradable.

### TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Flufoam 6
Appearance	yellow liquid
Specific gravity at 20°C	1.01 ± 0.02 kg/dm <sup>3</sup>
pH at 20°C	8.0 ± 1.0
Viscosity at 20°C	4 ± 2 cStokes
Sediments	0%
Surface tension at 6%	17 ± 2 mN/m
Interfacial tension at 6%	3 ± 1 mN/m
Freezing point	-3°C
Temperature of use	0°C to +50°C
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25%	> 2 minutes
Medium Expansion	> 40, foam expansion values depend on the equipment
Approvals	EN 1568-3: class IB, Bureau Veritas certificate

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Flufoam: 6% - 20 liter	1	SG01918
Bio-Ex Flufoam: 6% - 200 liter	1	SG01919
Bio-Ex Flufoam: 3X - 20 liter, freeze protected -10°C	1	25121010

## Bio-Ex Hydropol 6

HYDROPOL 6 is a fluorosynthetic foam AR 6X6. The Alcohol Resistant property produces a thick layer – skin – if applied on any kind of fuels. The peculiar nature of our fluoropolymer gives outstanding burnback resistance. HYDROPOL 6 is pseudoplastic: its viscosity decreases when it is agitated. This property authorizes its use even at low temperature and low pressure.



### Applications

HYDROPOL 6 can be used with tap water, sea water and brackish water at 6% on hydrocarbon and polar solvents fires as well as for the keeping of gaseous fumes: acids, HCl, NH<sub>3</sub>. in Medium Expansion. It is suitable with all kind of known equipment.

### Foaming power

HYDROPOL 6 is usable at Low, Medium and High Expansion.

### Fuel fires

HYDROPOL 6 is efficient on hydrocarbon and polar solvents fires. HYDROPOL 6 can keep its water for a very long period. This outstanding property makes it highly efficient on polar solvents fires.

### Environment

HYDROPOL 6 is easily biodegradable.

## TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Hydropol 6 x 6
Appearance	yellow gel
Specific gravity at 20°C	1.06 ± 0.02 kg/dm <sup>3</sup>
Ph at 20°	7.0 ± 1.0
Viscosity at 20°C (mPa.s)	1000 ± 200 mPa.s
Sediments	< 0.1 %
Surface tension at 6% (mN/m)	23 ± 2 mN/m
Freezing point	-14°C
Temperature of use	-10°C + 50°C
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25 %	> 10 minutes
Medium expansion	> 30, foam expansion values depend on the equipment
High expansion	> 400
Approvals	EN 1568-1, EN 1568-2, EN 1568-3, EN 1568-4 Navy: Bureau Veritas certificate

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Hydropol-AR: 6% - 20 liter	1	SG01935
Bio-Ex Hydropol-AR: 6% - 200 liter	1	SG01936

## Bio-Ex Filmopol 6x6



FILMOPOL 6 is a fluorosynthetic foam AFFF-AR 6X6. The film-forming property AFFF gives to FILMOPOL 6 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air. The Alcohol-Resistant property produces a thick layer – skin – if applied on any kind of fuels. The peculiar nature of our fluoropolymer gives outstanding burnback resistance.

### Applications

FILMOPOL 6 can be used with tap water, sea water and brackish water at 6% on hydrocarbon, on polar solvents fires as well as on special chemicals: acids, HF, HCl, amines, Butadiene, CS<sub>2</sub>. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

### Pseudoplastic

FILMOPOL 6 is pseudoplastic: its viscosity decreases when it is agitated. This property

authorizes its use even at low temperature and low pressure.

### Foaming power

FILMOPOL 6 is usable at Low, Medium and High Expansion.

### Fuel fires

FILMOPOL 6 is efficient on hydrocarbon and polar solvents fires.

### Environment

FILMOPOL 6 is easily biodegradable.

## TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Filmopol 6x6
Appearance	white gel
Specific gravity at 20°C	1.00 ± 0.02 kg/dm <sup>3</sup>
Ph at 20°	7.0 ± 1.0
Viscosity at 20°C (mPa.s)	1000 ± 200 mPa.s
Sediments	<0.1%
Surface tension at 6% (mN/m)	16 ± 2 mN/m
Interfacial tension at 6% (mN/m)	2 ± 1 mN/m
Freezing point	0°C
Temperature of use	+2°C / + 50°C
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25 %	> 10 minutes
Medium expansion	> 30, foam expansion values depend on the equipment
High expansion	> 400, foam expansion values depend on the equipment

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Filmopol-AR: 6x6 - 20 liter	1	SG01947
Bio-Ex Filmopol-AR: 6x6 - 200 liter	1	SG01948

# Fire Plan Holder

This UPVC holder with weatherproof screw end cap comes complete with fixings and has been specifically designed to comply with the requirements of the SOLAS regulations. It hold fire plans up to size A1 to be accommodated without the need to fold the plan.

## Features

- suitable for standard fire plan and safety plan sizes, maximum A1 format
- UPVC holder with waterproof screw end cap
- clear labeling for identification
- complete with mounting brackets



Fire plan holder  
UPVC material

## TECHNICAL SPECIFICATIONS

Material	UPVC
Capacity	Holds folder of A1 format
Dimensions	Diameter: 110 mm, length: 1 meter
Color	Red
Approvals	In accordance with SOLAS

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire plan holder	1	SG04911

# Dräger Nomex Fireman's Suit

Dräger would like to present its new line of firefighting clothes designed to the highest standards with one thing in mind: the firefighter. The new suit is the result of a close study of technical key features and usability of suits that are currently available in the market: the suit has been improved on eight key features as compared to the most readily available suits. Providing a safe barrier "between human will and fire's forces".



## Dräger Nomex Fireman's Suit

A lightweight, durable and highly comfortable suit

### Radiation heat barrier

A Kermel fleece that provides excellent thermal protection, these very thin layers found inside the layer concept, minimise the amount of water that can replace the critical insulation air space in the garment.

### Membrane

A Hi-Tech polyurethane membrane coated on the outer radiation heat barrier. Ensures exceptional breathable characteristics and unmatched durability. Up to a temperature of 380°C, this membrane gives a good protection against heat and chemicals and will not melt.

### Liner

A combination of Nomex and Viscose. The Nomex thread of this special weave method with the 2,5% Kevlar makes the liner strong. The fire retardant Viscose thread provides comfort and transports moisture to the outside of the liner. The multi-layer configuration ensures that each layer accomplishes its part of the job.

### Air layers and thermal barriers

The protective value of the "ESS® 5 layer system" in combination with the fabric composite is found in the air between the fire fighter and the heat source. Air itself is the greatest single source of insulation qualities in protective clothing. Sandwiching stitching inside the facing cloth is therefore never used. All the layers are not stitched to each other; this improves the thermal insulation value (TPP) by protecting the moisture barrier and creating multiple air spaces between the very thin layers.

### Comfort

The used layer system creates a lightweight, durable and highly comfortable garment without compromises to the suits protective features.

### Quick Release Breakaway Zippers

Specially designed for military, firefighter and chemical suits. Ideal for situations where it's desirable to tear the zipper open without having to move the zipper all the way back.

### Anti Aqua

High-Tech coated polyester fabric in sleeves, trouser legs, storm flap, back piece and pocket flaps. Prevents water and chemicals to easily enter the lining of the suit.

### Eyelets

To quickly drain fluids from the suits pockets.

### External padding

The suit features external protective pads on the knees and the elbows. Most other suits have their padding installed on the inside of the pants and do not use padding for elbows. Using padding for both elbows and knees increases user comfort. In addition using padding on the outside helps to protect the suit from damages on its most fragile parts.

### Rounded pocket flaps

By using rounded pocket flaps the chances of being caught behind protruding parts when in action are reduced. In addition the rounding of the corners reduces wear and tear on the fabric in everyday use.

## TECHNICAL SPECIFICATIONS

Type of material	NOMEX® III, 220 g/m <sup>2</sup>
Inner material	Jacket and trouser: NOMEX, 93% Meta-Aramid, 5% Para-Aramid, 2% Static Control Stitching: NOMEX Liner: NOMEX fleece (heat barrier), NOMEX fleece with Hi-Tech PU breathable membrane, NOMEX viscose FR lining



# Dräger Nomex Fireman's Suit

Pockets	Jacket: Two side pockets with flaps, one inside pocket and one radio pocket on each chest Trousers: 2 box pockets on thighs. Inverse pocket in both sides
Color	Orange with reflective striping
Sizes	S - XXL
Approvals	EN469:2005, MED

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Nomex Fireman's Suit, size S	1	SG03701
Dräger Nomex Fireman's Suit, size M	1	SG03702
Dräger Nomex Fireman's Suit, size L	1	SG03703
Dräger Nomex Fireman's Suit, size XL	1	SG03704
Dräger Nomex Fireman's Suit, size XXL	1	23110074

## Dräger Fireman's Suit Techs-Gold

A specially designed unique Techs-Gold fabric. Built from super strong filament yarn. A fabric with an excellent resistance to wear and tear. The filament yarn is a completely Dutch product, built from 53% Technora, 45% Teijinconex and 2% antistatic fibre. The new suit is the result of a close study of technical key features and usability of suits that are currently available in the market: the suit has been improved on eight key features as compared to the most readily available suits. Providing a safe barrier "between human will and fire's forces".



### Dräger Fireman's Suit Techs-Gold

A lightweight, durable and highly comfortable suit

#### Features

- Quick release zip.
- Perforated striping for increased water vapor permeability.
- Integrated hook for tools or gloves.
- Keprotec/Kevlar foam pads on crucial areas, such as the shoulders and elbows. Comfortable and durable for the ultimate protection.
- Increased water vapor permeability because of strategically placed Orings.
- Integrated pocket on the front, inside and both sides. Ideal for tools or other objects.
- Perforated striping for increased water vapor permeability.
- Keprotec/Kevlar foam pads on crucial areas, such as the shoulders and elbows. Comfortable and durable for the ultimate protection.
- Integrated zip for easier dressing and undressing.

#### Radiation heat barrier

A fleece layer of Basofil (Melamine), which offers outstanding protection against heat. This thin layer within the layer system maximizes the water vapor permeability. The insulating air layers within the suit increase the heat resistance.

#### Membrane

A Hi-Tech PTFE bico membrane coated on the radiation heat barrier. This layer provides the outstanding water vapor permeability of the garment. This has an extraordinary durability. This membrane provides excellent protection against heat and chemicals. It will not melt or disintegrate.

#### Radiation heat barrier

A second Kermel fleece layer. To double the heat resistance. This thin layer within the layer system maximizes the water vapor permeability. The insulating air layers within the suit increase the heat resistance.

#### Liner

A combination of Nomex and Viscose FR. The Nomex threads of this special fabric with 2,5% Kevlar make the lining stronger. The flame-retardant viscose threads provide an unparalleled level of comfort. They transport fluids and transpiration away from your body. This multi-layer configuration provides a perfect combination of features, each doing their part of the job.

#### Air layers and thermal barriers

The outstanding protective features of the "ESS®5 Layer System" are the result of an ideal combination of fabric composition and stationary air between these layers. Stationary air provides the best insulation. Because of this we never sew our layers directly onto each other. This provides the insulating quality (TPP). The variety of layers each create multiple stationary insulating layers of air between the thin layers.

#### Comfort

The layer system creates a light, although very durable and strong product. It's very comfortable without having to compromise the protective features of the product.

### TECHNICAL SPECIFICATIONS

Type of material	NOMEX® III, 220 g/m <sup>2</sup>
Inner material	Jacket and trouser: NOMEX, 93% Meta-Aramid, 5% Para-Aramid, 2% Static Control Stitching: NOMEX Liner: NOMEX fleece (heat barrier), NOMEX fleece with Hi-Tech PU breathable membrane, NOMEX viscose FR lining

## Dräger Fireman's Suit Techs-Gold

Pockets	Jacket: Two side pockets with flaps, one inside pocket and one radio pocket on each chest Trousers: 2 box pockets on thighs. Inverse pocket in both sides
Color	Orange with reflective striping
Sizes	S - XXL
Approvals	EN469:2005, MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Fireman's Suit Techs-Gold , Size: S	1	SG03791
Dräger Fireman's Suit Techs-Gold, Size: M	1	SG03792
Dräger Fireman's Suit Techs-Gold, Size: L	1	SG03793
Dräger Fireman's Suit Techs-Gold, Size: XL	1	SG03794
Dräger Fireman's Suit Techs-Gold, Size: XXL	1	SG03795

## SECO Fireman's Suit - Yellow

The SECO firemans suit is specifically designed for firefighting where protection from radiant heat and direct flames is a priority.



### SECO Fireman's Suit

Protection from radiant heat and direct flames

#### Features

- The Seco suit is manufactured from fire resistant natural fibre. It has been treated with Proban and a water repellent finish, which can withstand 50 washes without degradation.
- The jacket consists of a two layer construction, high collar protection and hook and loop fastener front fastening.
- The trousers consists of a two layer construction and complete with a set of braces.

- The lower leg is closed with touch and close straps.

#### Accessoiries

The suit is manufactured in a universal size to fit Large (up to 1,80m). The suit is delivered in a holdall including all accessories such as helmet, boots, fire fighting gloves and electrician gloves for use when extinguishing electrical fires.

### TECHNICAL SPECIFICATIONS

Color	Yellow
Approvals	EN 531/EN532/EN 20811: Suit EN 443 : Helmet EN 659 : Leather gloves EN 60903 : Electrician gloves EN 345 S5 : Rubber boots MED approved

### ORDER INFORMATION

Description	Unit Sales	Articlenr
SECO Fireman's suit - Yellow - complete set, size: XL	1	23110040

# SECO Fireman's Suit - Aluminised

It is specifically designed for firefighting where protection from radiant heat and direct flame is a priority. This suit is manufactured in universal size, is waterproof and can be easily cleaned after use.



**Features**

- jacket: unlined, high collar protection, hook and loop fastener fastening
- trousers: unlined, with adjustable braces
- helmet: heavy duty Kevlar Helmet complete with chinstrap, sweatband, fully adjusting visor and aluminised neck cape protection
- gloves: heat, water, chemical and oil resistant shearguard leather, with knitted

- cuff and 100% Kevlar Lining. Electrically non-conducting rubber gloves, 650 volt working.
- boots: electrically non-conducting rubber boots with steel mid-sole and toe cap protection, approved to EN345 S5.
- all above in Heavy Duty PVC Holdall

**SECO Fireman's Suit**

Waterproof and easy to clean

**TECHNICAL SPECIFICATIONS**

Color	Aluminised
Approvals	EN 531/EN532/EN 20811: Suit EN 443 : Helmet EN 659 : Leather gloves EN 345 S5 : Rubber boots

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
SECO Fireman's suit - Aluminised - complete set, size: XL	1	23110011

## Nomex Fireman's Coverall

The Nomex Fireman's coverall is a navy dark blue or orange suit with reflective striping. The Nomex suit is manufactured from fire resistant natural fibre, It has a water repellent finish, which can withstand 50 washes without degradation.



### Features

- one piece coverall
- front zipper extending to collar
- lace intake at waist. Snap hook in right pocket
- the coverall is provided with shoulder straps, microphone strap on right chest, loop fastener for name/logo on left chest and an extra layer of knitting on shoulders
- knee pad pockets with pads and pre-bent knees
- elastic intake at waist on the back part of trousers
- anti-wicking barrier at bottom of trouser legs

### Nomex fireman's coverall

One piece fireman's coverall

### TECHNICAL SPECIFICATIONS

Type of material	NOMEX® III, 265 g/m <sup>2</sup>
Inner material	Coverall: Quilted felt 175g/m <sup>2</sup> + NOMEX® / viscose 125g Stitching: Aramid Wristlets: NOMEX® knitted wristlet with thumb hole
Pockets	Two side pockets with flaps, one inside pocket and one radio pocket on each chest. 2 box pockets on thighs. Inverse pocket in both sides.
Color	Navy Dark Blue or Orange with reflective striping
Sizes	S / M / L / XL / XXL
Approvals	CE approved according to EN 469-2005 and 96/98/EC SOLAS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Nomex fireman's coverall, blue with striping Available in sizes S - XXL, mention size when ordering	1	23110047

## Fire fighter hood

Nomex hood for fire fighters.



### Features

Elastic inside at face opening.

### Nomex hood

For fire fighters

### TECHNICAL SPECIFICATIONS

Color	Grey
Size	One size
Material	Nomex/Viscose knit, 50/50, 235 g/m <sup>2</sup>
Approvals	EN 13911

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Flash hood: Nomex III	1	SG03881

## Dräger Firemans Gloves

Best quality leather for the best protection.



**Dräger fireman's gloves**  
Great protection for hands

### General

These gloves are completely sewn with Kevlar. Between all seams, a leather tubing, which protects the Kevlar, can be seen. This extends the lifespan of the glove. The palm features an extra strong leather inside.

A piece of leather is sewn on the cuff as an additional radial artery protection. The glove is equipped with elastic so the glove will fit perfectly.

The Porelle breathable membrane ensures the user a breathability and protects the user against water and chemicals.

The knitted Kevlar lining provides high wearing comfort. The Kevlar elastic cuff fits well around the wrist and provides great protection for the user.

### Features

- Material: Cowskin and fire resistant grain leather
- Membrane: Porelle breathable liner
- Liner: Knitted Kevlar (para Aramide fibre)
- Cuff: Knitted Kevlar with Spandex for elastic facility
- Stitching: Kevlar yarn
- Standard sizes: 7/S – 8/M – 9/L-10/XL-11/2XL

### Porelle liner

- Keeps you dry and comfortable
- Innovative functional technology
- High moisture diffusion and drying ability
- Fire retardant and high capacity breathability
- Keeps your body temperature in balance

### TECHNICAL SPECIFICATIONS

Color	Yellow
Fabric	Leather palm and backhand Knitted wrist Kevlar inner lining
Approvals	EN 659, EN 420, EN 388, EN 407 and MED approved

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Firemans Gloves, size S, MED approval	1	SG03741
Dräger Firemans Gloves, size M, MED approval	1	SG03742
Dräger Firemans Gloves, size L, MED approval	1	SG03743
Dräger Firemans Gloves, size XL, MED approval	1	SG03744
Dräger Firemans Gloves, size XXL, MED approval	1	SG03745



## Fireman's Boots

Comfortable boots with reinforced toes and mid sole. Heat and oil resistant rubber sole with protection against penetrating nails. Approved according to EN345-2 and SOLAS/MED.



### Fireman's Rubber Boots

Meets the heat and flame resistance requirements

#### Safe

The fireman's boot is an EC-approved safety boot and is produced in compliance with the PrEN 345 standard, section 2, category S5. In this way our fireman's boot meets the most stringent heat- and flame resistance requirements. Thanks to these specific characteristics and their broad fit our boots are particularly appreciated among fire fighters, civil protection and rescue services.

#### Flexible - elastic and supple

In contrast to PVC, which is a stiff material, especially at temperatures under 15°C, the flexibility of rubber makes the boots pleasant to wear. In addition the boots adjust to the feet without pinching. The elasticity of rubber combined with the cotton stretch lining increase comfort, while putting them on, when wearing them and when removing them. The suppleness of rubber provides unequaled wearing comfort. The natural spring contributes to healthier ergonomics for the feet.

### TECHNICAL SPECIFICATIONS

Color	Black and yellow
Sizes	36 - 50
Type of construction	Vulcanized rubber upper and sole
Rubber components	Black/yellow in color, 65% natural rubber, 30% styrene butadiene rubber and 5% chloroprene rubber
Sole/heel	Oil resistant - Immersion in iso-octane (22 hours at 22°C) 12% max change in volume Abrasion resistant - DIN 53516: 250mm 3 max. Hardness shore A: 65 ± 5
Steel midsole	One piece stainless steel, meets CSA-Z195-02 sole penetration and EN345 flexing test
Steel toe	Meets EN 345 impact and compression
Chemical resistant	Upper - Resistant towards mild acids and alkali Sole - Resistant towards mild acids
Approvals	European standard, CE approved - EN 345-2: 1996 (SBFP-E-HRO-CI) and UK office A29, CSA Z195-02 - Canadian standards association (PR EH), ANSI - American national standard Z41PT99 (I/75 C/75)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Fireman's Boots, size 36	1	SG03721
Fireman's Boots, size 37	1	SG03722
Fireman's Boots, size 38	1	SG03720
Fireman's Boots, size 39	1	SG03723
Fireman's Boots, size 40	1	SG03724
Fireman's Boots, size 41	1	SG03725
Fireman's Boots, size 42	1	SG03726
Fireman's Boots, size 43	1	SG03727

## Fireman's Boots

Description	Unit Sales	Articlenr
Fireman's Boots, size 44	1	SG03728
Fireman's Boots, size 45	1	SG03729
Fireman's Boots, size 46	1	SG03730
Fireman's Boots, size 47	1	SG03731
Fireman's Boots, size 48, SOLAS approved	1	SG03732

## Fireman's Boots Herkules S3 5526-0

Comfortable boots for protection against heat and foot injuries and injuries caused by slipping, pushing, pinching, falling or sliding objects.



### Fireman's Boots Herkules 5526-0

Meets the heat and flame resistance requirements

#### Features

- Upper material: natural, heat-resistant and waterproof cowhide leather with smooth grain, black colour.
- Lining: natural cowhide leather - in addition to the comfort, the properties of this leather increase hygiene of wear, because the moisture that appears during the use is drained through the leather of the lining. As a result, the skin of the feet does not overheat, does not attrition and does not infuse, without causing discomfort to the user.
- Special construction of the tongue prevents the penetration of dust or dirt inwards the shoe.
- F2A: footwear for firefighters type 2, with antistatic properties, construction type C.
- An additional rubber cover protection sewn to the tip of the shoe prevents an attrition and mechanical damages of leather at front part of the upper.
- Steel toecap: protecting against impact with energy up to 200J and 15kN crush force.
- Steel insole: resistant to puncture up to 1100N.
- HI3: third level thermal resistance-level of heat insulation at 250°C/40 min.
- Double zipping system: zipper and laces.
- Zipper handle blocker
- Reflective inserts
- Easy donning
- Ventilated two-layer insole pad (outer part - natural leather, inner part - foam, both parts swen together), with additional layer of special foam in the heel section to increase the comfort of use.
- Sole: top quality heatproof rubber, resistant to high temperatures, oils, weak acid and alkaline, antiskid SRC.
- Shock-absorber protection for shock absorption in the heel part while walking.
- Assembly system: gluing

#### TECHNICAL SPECIFICATIONS

Color	Black
Sizes	36 – 48 (special sizes 49 and 50)
Sole/heel	Molded rubber sole with 6 mm profile Heat-resistant up to 300 °C SRC rated slip resistant Incorporated stainless steel soleplate
Weight	2.1 kgs
Height	22 cm in size 8
Approvals	Protection class F2A HI3 SRC according to the requirements of European standard for firefighting boots EN 15090:2012

#### ORDER INFORMATION

Description	Unit Sales	Articlenr
Herkules Fireman's Leather Boots, size 6 / 39	1	23112003
Herkules Fireman's Leather Boots, size 7 / 40	1	23112051
Herkules Fireman's Leather Boots, size 8 / 41	1	23112052
Herkules Fireman's Leather Boots, size 9 / 42	1	23112053
Herkules Fireman's Leather Boots, size 10 / 43	1	23112054
Herkules Fireman's Leather Boots, size 11 / 44	1	23112055
Herkules Fireman's Leather Boots, size 12 / 45	1	23112056

## Fireman's SA Boots

Boots for emergency situation and fire with toxic chemicals emission.



### Features

- safety toe cap
- anti-perforation mid-sole
- resistance to heat flow, heat contact, fire
- resistance to chemicals: fuels, oils, weak and diluted acids, solvents
- resistance to abrasion and cuts
- used with chemical protective suits (satisfy permeation tests according to EN 943-2)

### Fireman's SA Boots

Meets the heat and flame resistance requirements

### TECHNICAL SPECIFICATIONS

Color	Black
Sizes	36-50
Type of construction	Elastomer: fireproofed NBR (fireproofed nitrile rubber)
Steel midsole	Composite anti-perforation mid-sole
Toe	Polymer toe cap (steel toe for sizes 36, 37, 38)
Weight	1900g / pair (size 42)
Height	370mm (size 42)
Approvals	EN 943-2 EN 15090 type 3 HI3 EN ISO 20345 S5 HRO SRC EN 13832-3 J P Q EN 13287 Marine fire protection equipment certified by SEE-BG, notified body N°0736 MED approved

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Fireman's Boots, size 36	1	SG03746
Fireman's Boots, size 37/38	1	SG03747
Fireman's Boots, size 39	1	SG03749
Fireman's Boots, size 40/41	1	SG03751
Fireman's Boots, size 42	1	SG03752
Fireman's Boots, size 43	1	SG03753
Fireman's Boots, size 44	1	SG03754
Fireman's Boots, size 45	1	SG03755
Fireman's Boots, size 46/47	1	SG03756
Fireman's Boots, size 48	1	23112026

## Safety Boots - Cherokee - S3

There is a need for 'basic' footwear, stripped from all things that could be regarded as 'luxury', but with all major safety and comfort properties 'on board'.



### Features

- ankle support
- slip resistance
- S3
- non-metallic
- lightweight

- fine leather quality
- extra rigid leather parts
- easy access zip
- anti-perforation textile Enigma T-system
- oil hydrocarbons resistant
- anti-static

### Safety Boots Cherokee

Slip resistance, S3

### TECHNICAL SPECIFICATIONS

Manufacturer / Type	Roots / Cherokee
Color	Black
Sizes	38 - 50
Boot height	22.8 cm (9")
Toecap	Multi-layer fiber glass 200J
Midsole	Texon anti-perforation midsole S3
Sole	Inner sole soft PU / outsole hard PU
Heat resistance sole	Up to 170°C
Slip resistant modulus	0.41
Scuff cap	Direct injected PU
Weight (EU43 / UK9)	1.72 kgs
Approvals	UNI EN ISO 20345:2012, CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Boot, size 38	1	07107138
Safety Boot, size 40	1	07107140
Safety Boot, size 41	1	07107141
Safety Boot, size 42	1	07107142
Safety Boot, size 43	1	07107143
Safety Boot, size 44	1	07107144
Safety Boot, size 45	1	07107145
Safety Boot, size 46	1	07107146
Safety Boot, size 47	1	07107147
Safety Boot, size 48	1	07107148
Safety Boot, size 50	1	07107149

## Dräger HPS 7000 Fireman's Helmet

The Dräger HPS 7000 firefighter's helmet is in a class of its own thanks to its innovative, sporty and dynamic design, ergonomic fit and components which make it a multi-functional system solution. It provides you optimum protection during every operation.



Dräger HPS 7000 fireman's helmet  
Tailor-made fit for every head

### Tailor-made fit for every head

Two helmet shells for head sizes from 50 to 66 cm cover a wide range of individual head and face shapes. With a weight of approx. 1,380 g as basic version, it is one of the lightest helmets in its class. In addition to its comfortable interior fitting made of skin-friendly, anti-allergic and flexible materials, the Dräger HPS 7000 stands out with its high level of operating and wearing comfort.

### Comfort is a matter of position

The padded 4-point harness allows for safe and easy adjustment to any head shape. The optimum balance of the helmet can be adjusted individually in the neck and chin area. The padding made of Nomex also ensures a comfortable fit. The integrated comfort hairnet enables the height to be adjusted and assures a good climate inside the helmet. During operation, the head size can be adjusted quickly via an easy-to-operate size adjustment wheel with safety mechanism on the outer shell, even with wet and thick gloves.

### Design at its strongest

The ergonomic helmet design evenly distributes the weight to the head and relieves the neck muscles. The large and modern facial protection visor offers unrestricted protection with best visibility. For operations under chemical protective suits, the visor can be fixed permanently. A safe alternative is provided by the integrated and individually adjustable protective goggles with integrated softpad edge protection. Both visors leave enough space for the simultaneous use of corrective glasses or respiratory masks.

### Innovative system design

As a provider of integrated system solutions, Dräger sets new standards for the interaction of its products. The universally and individually adjustable mask connection system of the Dräger HPS 7000 creates a strong and safe helmet-mask combination. The full-face mask FPS 7000, the integrated mask communication unit FPS 7000 COM-PLUS and the SCBA of the PSS series allow you to optimally configure the overall system. The light-weight LED helmet lamp is integrated

into the helmet shell and illuminates the whole working area. It is located in the centre of the front plate and has an effective glare 2012shield as well as intelligent battery management system. The interior fitting can be equipped with various audio/speech headsets for different radios. This ensures reliable communication even in loud environments.

### Highest safety - the material mix makes the difference

Despite its low weight, the Dräger HPS 7000 is one of the safest full-shell helmets in its class. Its outer shell of composite material in combination with the PUR inner shell provides reliable protection against thermal and mechanical influences. The plastic reinforced with glass fibre and aramide webbing resists extreme temperatures. It is even able to withstand the enormous radiation heat and flame engulfment of a flash over. The visors of high temperature resistant polyether sulphone reliably protect your eyes and face against high heat, particles and liquid chemicals.

### Nothing left to be desired

A comprehensive accessory program completes the Dräger package. Reflective strips improve your visibility under unfavourable conditions and allow for individual marking. Matched to your clothing, the various neck protection versions reliably keep your back free. Separate helmet lamps are attached with a lamp adapter on the right or left helmet side. A Nomex coating protects your helmet in any training situation and extends its service life. Helmet bags and cases provide safe storage and transport.

### Ready again in no time at all

The Dräger HPS 7000 is easy and efficient to service due to the minimum number of components. The entire interior fitting can be removed and re-installed in just a few steps. You can replace individual components easily and quickly, using standard tools. All helmet components are cleaned and disinfected manually or in industrial washing machine.

# Dräger HPS 7000 Fireman's Helmet

## TECHNICAL SPECIFICATIONS

Size	H1: for head size 52 to 60 and optional for 50/51 (when using a separate padding strip), H2: for head size 56 to 64/66, continuously adjustable via adjustment wheel (available 2014)
Weight	Approx. 1,380 g (±5%)
Color	Luminescent, pure white, red, signal blue, zinc yellow, black, bright yellow, other colors on request
Mask connection (only PRO version)	Option to attach any adapter mask, e.g. Dräger FPS 7000, 4 positions adjustable
Interior fitting	Flame-resistant and washable 4-point harness made of Nomex, sweat band of eco leather, head support ring with wheel adjustment system (patent pending), integrated comfort hairnet, fixing lever for facial protection visor and communication adapter
Material, outer shell	composite consisting of glass fibre reinforced plastic (PA-GF) and additionally reinforced with aramide webbing, high temperature resistant
Facial protection visor	2.5 mm polyether sulphone, anti-scratch coated (optional), approved acc. to EN 14458:2004 (±40 °C, T, N, K, AT, R, E3) clear or gold-coated version
Protective goggles (only for PRO version)	2.5 mm polyether sulphone with softpad edge protection, anti-scratch coated (optional), approved acc. to EN 14458:2004 (±40 °C, T, N, K, AT, R, E3), clear or tinted version, 2 positions adjustable
Approvals	EN 443:2008 (type B 3b, C, E2, E3, -40 °C), mask-helmet combination acc. to DIN 58610

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger HPS 7000, luminescent	1	R79170
Dräger HPS 7000, white	1	R79171
Dräger HPS 7000, PRO luminescent/matt black	1	R79250
Dräger HPS 7000, PRO white/matt black	1	R79251
Dräger HPS 7000 - neck protection Nomex / Aluminium	1	R79145
Dräger HPS 7000 - neck protection Nomex / short	1	R79146
Dräger HPS 7000 - neck protection Nomex, neck curtain, three-layer	1	R79147
Dräger HPS 7000 - helmet lamp, LED, integrated	1	R79013
For Dräger HPS 7000 and HPS 7000 PRO, to attach the integrated LED helmet lamp, order separately: E-kit front plate for Dräger HPS 7000 helmet lamp	1	R79226
Lamp holder Dräger HPS 7000 (for helmet lamps Dräger PX1)	1	R79129
Helmet lamp Dräger PX 1 LED	1	R62350
Helmet lamp Dräger PX 1 XENON	1	R57816

## Dräger HPS 6200 Fireman's Helmet

The Dräger HPS 6200 – a firefighter's helmet in a class of its own. Optimum protection even at extreme temperatures. High wearing comfort and a good climate inside the helmet. A wide range of accessories is available to complete the head-protection system.



**Dräger HPS 6200 fireman's helmet**  
Fire fighter's helmet in pure white with amber-tinted visor

### High Thermal

The Dräger HPS 6200 is characterised by high thermal stability achieved through the helmet shell being made of high-temperature resistant Duroplast material reinforced with aramid fabric which can resist open flames as well as radiant heat.

### Wearer protection

The HPS 6200 protects the head against penetration and impact even under high thermal stress. As the helmet shell has been compression-molded using the SMC method and furnished with an optimised finishing, the Dräger HPS 6200 features an extremely high protection levels.

### Adaptable use

Adaptation systems allow the HPS 6200 to be used in conjunction with the with the FPS 7000 or Panorama Nova full face mask. Three different helmet-mask adapters are available: Supra-connection, S-fix or Q-fix connection.

The helmet with the least weight presently on the market according to the new standard EN 443:2008.

### Wearer comfort

The padded interior ensures reduced pressure on the wearers head during use and the integrated flame and heat barrier ensures a comfortable temperature within the helmet. The improved ear clearance at the chin strap provides optimised acoustics and thanks to the new hook and loop fastener fastener, the chin strap can be adjusted quickly and easily.

### Accessories

A wide range of accessories can be used with the HPS6200: mask connections, varying colours for helmet shells and front plates, adapters for communication systems, lamp holders or ear protectors are available. These components will already be integrated into the helmet on receipt of order.

## TECHNICAL SPECIFICATIONS

Size	Universal size, continuously adjustable for head sizes 52 to 64 or optionally 50/51 with additional pad
Weight	Appr. 1,365 gr
Color	Luminescent, pure white, red, signal blue, zinc yellow, black, bright yellow, other colors on request
Mask connection	Suitable for connection of the Dräger FPS® 7000 masks and masks with Supra-adapter
Inner liner	Flame-resistant, washable harness made of Nomex, headband of "eco-leather" head support ring with quick-adjustment system for wearing of full-face masks with hairnet or 5-point harness
Fastening system	3-point chinstrap of Nomex/Aramide with padding, hook and loop fastener fastener and quick-release buckle
Visor	mm polysulfone (amber-tinted), anti-scratch coating and grip tabs on both sides approved to EN 14458; 2nd visor version (as described above), but gold-coated
Insulation resistance	E2, E3
Radiant heat	14 kW/sq m
Low-temperature stability	down to -40 °C
Approvals	prEN 443:2006, EN 443:1997, mask-helmet combination to DIN 58610, Nord Test (as Dräger HPS 6100)



# Dräger HPS 6200 Fireman's Helmet

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger HPS 6200, base version with 'Romanic' front plate (color: matt black), luminescent	1	R57255
Dräger HPS 6200, base version with 'Romanic' front plate (color: matt black), white	1	R57256
Dräger HPS 6200, base version matt black helmet front plate, white	1	R56530
Neck curtain, Nomex Aluminium with reverse side of Nomex III	1	R56622
Neck curtain, Wool Long (Dutch type), 100% wool, oil- and waterrepellant, flame-retardant, edged at bottom with Nomex III	1	R56623
Neck curtain, Nomex short and tight fitting, Nomex impregnated with fluorocarbon	1	R56620
Helmet lamp Xenon	1	R57816
Lamp holder S-Fix, of high temperature resistant black plastic	1	R56700
Lamp holder Q-Fix, made of high temperature resistant black plastic	1	R56950
Mask adapter retrofit kit Q-Fix, fixing to position points on the helmet instead of the mounted plate for S-Fix	1	R56824
Chinstrap with hook and loop fastener fastening	1	R56536
Anti-fog agent, for all visors	1	R56542
Adapter ring for Savox coms	1	R56828
Adapter for communication system, Right	1	R56825
Spare parts set for mask attachment	1	R56144

## Dräger HPS 4500 Fireman's Helmet

The Dräger HPS® 4500 is a traditional half-shell helmet with a modern design. Its robust outer shell provides you with excellent protection against impact and extreme heat. With a modern visor design, the helmet has superior wearer comfort due to ergonomic and lightweight internal components. A comprehensive range of accessories make our solution a truly versatile helmet across a variety of applications.



Dräger HPS 4500 fireman's helmet  
Comfortable and easily adaptable

### Hard shell

The outer shell is characterised by a robust and resistant design. The combination of high-temperature-resistant Duroplast and latest aramid fabrics protects you both against falling debris and the heat of naked flames. The outer shell, pressed using a special method (SMC\* method) provides the HPS® 4500 with exceptional stability. At the same time it is one of the lightest helmets of its class and meets the requirements of the new standard EN 443:2008 – type A (half shell).

### High wearing comfort and easy operation

The HPS 4500 features modern and comfortable internal helmet components. The 4-point harness can be adjusted both in the neck area as well as in the temple area via a simple tensioning system. The convenient adjusting wheel allows you to adjust the fit of the helmet even with thick gloves. The integrated hair net allows for height adjustment, and at the same time, ensures a comfortable cool climate inside the helmet. The harness made of fire-resistant Nomex®/aramid fabric and the sweatband made of eco-leather are washable using common detergents.

### Heat and scratch resistant visor

The large visor of the HPS 4500 reaches down to the chin area. It is made of thermally high-resistant Polyphenylsulfon material and therefore suitable for interior fire fighting. The visor is approved according to EN 14458 and classified as "face guard". Therefore the visor provides the greatest possible protection without any interference in your field of vision. The visor has anti-scratch coating on both sides.

### Comprehensive accessories for every challenge

Dräger offers you a wide range of accessories for the most varied applications during fire fighting. You can optimize and individualize your helmet to these various challenges by choosing between numerous versions of neck guards, face protections, helmet lamps and communication systems – all of which can be quickly and easily attached to the HPS 4500.

- \* SMC (Sheet Molding Compound) – Duroplast, reinforced with aramid fibre cloths; for a higher performance of the entire helmet.
- Nomex® is a registered trademark of DuPont.
- Parasnap® is a registered trademark of Parat.
- Pinlock® is a registered trademark of Pinlock.

### TECHNICAL SPECIFICATIONS

Size	H2: 48 to 61, H3: 56 to 64, freely adjustable
Weight	H2: 995 g +/- 5%, H3: 1,060 g +/- 5%
Outer shell	GRP = Glass fibre reinforced duroplastic, high-temperature resistant, specially reinforced with aramid fabric
Inner helmet components	Flame-resistant and washable harness made of Nomex®/aramid, eco-leather sweatband with PU foam padding, polyester hair net
Visors (optional selections)	2 mm Polyphenylsulfon (amber), anti-scratch coating on both sides, approved according to EN 443:2008 and EN 14458:2004, or 2 mm polycarbonate (clear), approved according to EN 14458:2004
Insulation resistance	E2, E3
Radiant heat	14 kW/m <sup>2</sup>
Cold resistance	up to -40°C

# Dräger HPS 4500 Fireman's Helmet

Approvals

EN 443:2008 - Type A, shipping approvals in accordance with SOLAS and MED

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger HPS® 4500, luminescent, size H2	1	R62451
Dräger HPS® 4500, red, size H2	1	R62455
Dräger HPS® 4500, fluorescent yellow, size H2	1	R62459
Visor - Dräger HPS® 4500-PC AS/AS, size H2	1	R62494
Visor - Dräger HPS® 4500, PPSU AS/AS, size H2	1	R62496
Neck guard, Nomex® short	1	R56620
Neck guard Nomex®, Belgian version (shell version), 4 layers	1	R56621
Neck guard, aluminium/Nomex®	1	R56622
Neck guard, wool, Dutch shroud	1	R56623
Neck guard Nomex®, Dutch shroud version (shell version)	1	R58015

# Bullard Fireman's Helmet

Firedome FXE helmets are designed to give firefighters the extra edge that tips the odds in their favor. Featuring contemporary styling, these helmets incorporate recommendations from veteran fire professionals from around the world. The result is an integrated assembly of advanced materials and quality components that provide outstanding head protection, superior comfort, long-lasting durability and proven on-the-job performance.



**Bullard Fireman's Helmet**  
Comfortable wear, quick and easy sizing

**Features**

- superior comfort - A low center of gravity provides the FXE with a balanced and stable fit, increasing overall comfort.
- quick, easy sizing - Bullard's Sure-Lock® ratchet headband adjusts to wearer's head with a quick turn of the knob. Additional adjustment points permit custom fit, personalised balance and interface with the SCBA.
- tough and durable protection - The outer shell of the FXE is made of fiberglass and is more resistant to chemical attack and more stable at extreme temperatures than those made of thermoplastic. The color is molded through the shell.

- cost-effective maintenance - Bullard helmets are designed from the start to make maintenance simple and cost effective. For example, the browpad can be easily removed and cleaned. competitive helmets have browpad sewn into the headband making an awkward cleaning and very expensive replacement.
- maximum visibility - FXE helmets feature 3M Scotchlite® striping which retains reflectivity to 260° C (500° F). That makes Scotchlite the toughest material available for helmet markings.

**Unique face shield**

FXE helmets also feature the unique R310 optically-correct face shield. The R310 eliminates distortion and reduces eye stress and fatigue.

**TECHNICAL SPECIFICATIONS**

Size	52-62
Colors	Available in yellow, red, black and white
Approvals	CE EN443 EN166

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Bullard Fireman's Helmet FXE	1	SG03901
Bullard Fireman's Helmet, neck curtain, FXE	1	SG03904
Bullard Fireman's Helmet, face shield, FXE	1	SG03903
Bullard Fireman's Helmet, face shield mounting kit	1	SG03905

# Dräger UCF 9000 Thermal Imaging Camera

The Dräger UCF 9000 thermal imaging camera is suitable for all offshore apps. The camera can be used for rescue operations, technical assistance, hazmat operations, monitoring as well as search for hot spots and hidden fire.



**Dräger UCF 9000 Thermal Imaging Camera**  
Easy to use, small, light weight and EX approval

### Always have a hand free

The UCF 9000 is a compact design. The holding hand also operates all functions. Buttons and keys are quickly selected with the thumb or index finger. With its robust support the UCF is conveniently at hand even while you are crawling on all fours: Simply support yourself against the ground with the device's crawlplate support.

### Crystal clear images

Even when the visibility is extremely poor, the UCF 9000 will still deliver first-rate image quality and detailed precision. With its 384 x 288 pixels it offers an extremely high resolution, and thus provides 44% more detail than other fire fighting thermal imaging cameras. Its 57° field of view (horizontal) provides you with an extra-large overview of the situation. To bring the scene in even closer, you have the option of using the 4x zoom in addition to the 2x zoom.

### Thermal image or real image mode

The UCF 9000 is capable of capturing films and individual photos of not just the displayed thermal images, but also from real digital images. With this option, you can make a live recording of real operations and training situations and evaluate them on the display on site with the play function.

### The UCF basic functions

- laser pointer: use the pointer to mark heat sources or display the fill level of tanks
- snapshot-function: look around corners and freeze the image to assess the situation
- extended dynamic range: clearly detect persons and objects even near fires

- quick shutter: don't miss information because the detector is calibrating itself or when switching to a different operating mode

### Eight additional image modes

- fire (fire fighting)
- persons (search and rescue)
- thermal scan (searching for hotspots)
- outdoors (searching for persons outside)
- hazardous goods (leak detection and level indicators)
- scan PLUS (searching for heat sources - in real image)
- normal image (video camera)
- user-defined 1

### Continued recording with full memory card

Should the recording capacity of approx. two hours be exhausted, the black box of the UCF 9000 guarantees further use of the thermal imaging video. If the memory is full, the camera will simply record over the beginning of the recording. The recording continues automatically.

### Additional advantages

- intuitive operation: easy and safe handling even under rough conditions
- display brightness adjusts automatically to environment
- easy-to-read status information
- modern lithium ion batteries provide approx. four hours operating time
- automatic stand-by for longer battery life
- different attachment options (e.g. neck strap or retractable lanyard)
- wide range of accessories (e.g. transport case, vehicle installation kit, tripods, etc.)
- warmtebeeldcamera-oplader.jpg

## TECHNICAL SPECIFICATIONS

Dimension of the camera	125 x 280 x 110 mm (w x h x d)
Weight	1.4 kgs incl. battery
Technology display	Liquid crystal display (LCD)
Size display	9 cm
Application modes	Standard, Fire, Persons, Thermal Scan, Outdoors, Hazardous Goods, Scan Plus, Normal Image, User defined 1
Protection cover housing	Rubber material EPDM

## Dräger UCF 9000 Thermal Imaging Camera

Carrying loops housing	High-temperature-resistant material
Housing material	High-temperature-resistant plastic
Protection class	IP67
Infrared type sensor	a-Si Microbolometer Array
Resolution infrared	384 x 288 pixels
IR spectral	7 to 14 µm
Temperature sensitivity	Typically 0.035 °C
Picture frequency	50 Hz
Material optics	Germanium
Focus optics	1 m to infinity
Field of view	Horizontal: 57° / Vertical: 41° / Diagonal: 74°
Operation time (at 23°C) with battery	Typically 4 hours
Operation time (at 23°C) with alkaline power pack	Typically 2 hours
Temperature measurement	Digital temperature display: -40°C to 1,000°C
Operating temperature	40°C to 85°C (inside camera), 150°C for 20 min., 260°C for 10 min.
Battery technology	Rechargeable lithium ion batteries
Battery status display	Precise 4-level battery indicator
Approvals	IEC 60079-0:2007, IEC 60079-11:2006, EN 60079-0:2009, EN 60079-11:2007, EN 60079-11:2007, ANS/ISA 12.12.01, CAN/CSA E60079-0, CAN/CSA E60079-11, I M2 / II 2G, Ex ib I Mb / Ex ib IIC T4 Gb, Flame test EN137:2006

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger UCF 9000 (50 Hz)	1	8321225
Transport Case	1	8321099
Neck strap	1	8323031
Retractable lanyard	1	8323032
Li-on battery (with Ex-approval)	1	8323075
Battery charger	1	8321247
Tripod	1	8321254
Universal clamp	1	8321259

## Dräger REGIS® 300 and 500

Hands-free monitoring of respiratory protection of emergency and rescue teams: The boards REGIS® 300 and 500 enable the incident manager to keep track of respiratory equipment wearers and their deployment time. Thanks to an automatic intermediate alarm, monitoring can be combined with other tasks. In co-usage with the external tracer, distances of up to 40 m are possible.



### Dräger REGIS® 300 and 500

Hands-free monitoring of respiratory protection

#### Simultaneous monitoring of three teams

With Dräger REGIS, the incident manager is able to monitor up to three teams simultaneously, with up to three wearers per team. Easy to read displays with countdown timers inform about the remaining deployment time. The displays of both boards are illuminated with the touch of a button to ensure all important data is easy to see even in difficult conditions.

#### More safety with intermediate alarms

A continuous beep is emitted once the deployment time of a team is over. To aid with assigning the right alarm with the right team, the corresponding LED flashes. The acoustic and visual alarm tracer also emits an alert after 1/3 and 2/3 of the deployment time has expired.

#### External tracer for more ease of movement

Some incidents require that the person performing the monitoring must leave the vicinity of the board. In these cases, a highly visible external tracer can be combined with the board as an additional module. The built-in transmitter reliably relays any alarm signals emitted by the monitoring board to the external tracer for a distance of up to 40 meters.

#### Full deployment monitoring with simple documentation

Name of the equipment wearer, cylinder pressure at the beginning of the deployment, air supply, start and end of deployment time, as well as location: A clip attached to the board holds a sheet for entering all necessary data. The person performing the monitoring can later detach and file this sheet as needed.

Name tags can be attached with snap hooks to the lower end of the board for help in visualizing the team members. The color of the tags also provides information about the type of respirators used.

#### REGIS 500: Coding plugs for different applications

The deployment time may be shorter or longer depending on the type of respirator used. With the coding plugs for standard and short time respiratory protective devices, extended time respiratory protective device, or closed-cycle respiratory protective devices, the monitoring board panel can adjust automatically to a specific deployment time between 25 and 120 minutes. Simply insert the coding plugs into the corresponding slots and the countdown starts automatically.

#### Other advantages of the REGIS 300

- three backlit displays
- digital clock for real-time display
- customisable deployment time
- deployment time with negative sign starting at 0 minutes on display
- made from durable plastic
- corner protectors made of rubber
- labeling field with intuitive symbols
- clip to hold sheets and pen

#### Other advantages of the REGIS 500

- integrated Digital clock for real-time display
- additional intermediate alarm at deployment halftime and remaining time of 10, 5, and 0 minutes
- large backlit display
- rubber edge protectors on side and pen holder

### TECHNICAL SPECIFICATIONS

Dräger REGIS® 300: Size (h x w x d)	40 x 34,5 x 4,5 cm
Dräger REGIS® 300: Weight	1,5 kgs
Dräger REGIS® 500: Size (h x w x d)	24 x 23 x 5,8 cm
Dräger REGIS® 500: Weight	0,9 kgs

## Dräger REGIS® 300 and 500

### ORDER INFORMATION

Description	Unit Sales	Article n°
Dräger REGIS® 300	1	R55950
Dräger REGIS® 500	1	R54993



## Univent Ventilation Saw 16"

Low Vibe System separates the handle from the engine, bar and chain. Effectively reduces tiring vibrations. Air Injection Centrifugal Air Cleaning System for longer intervals between filter cleaning. Reduces wear and operates smoother. Smart Start Decompression valve reduces piston pressure when starting. Reduces required pulling force and makes starting easier.



### Features

- stainless steel muffler guard
- advanced 2-Stage air filtration system
- .404/.063 heavy duty carbide chain
- replaceable sprocket nosed guide bar
- inertia activated chain break
- insulated full wrap handle
- combined choke and throttle lock
- dual 2 X 2 transfer ports
- side chain tensioning system

- carburetor vapor lock isolation
- automatic adjustable oiler

### There are two types of saws available:

- saw recommended for standard fire department ventilation and building materials
- saw recommended for harder materials such as metal buildings, roll up doors, nails, etc. This saw has twice as many teeth!

### Univent ventilation saw 16"

Easy to handle, reduces vibrations

### TECHNICAL SPECIFICATIONS

Cylinder displacement	75 cm
Horsepower	6,5 PS
Noise level	104 dB (A)
Tank volume	0,75 liter
Oil tank volume	0,39 liter
No-load RPM	13.500/min
Weight	6,11 kg

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Univent Ventilation Saw 16"	1	22130002

# POK Portable Oscillating Monitor

500 GPM Blitz Fire Attack Monitor. Quick locking ladder attachments are options.



**POK Oscillating Monitor**  
Extremely compact and full 360°

**Features**

- 500 GDM Blitz Fire Attack monitor
- only one with full 360° rotation
- only one -20° to 80° vertical travel with built in stop at 30°
- storage size of only 19"L x 7"W x 8"H
- 0° to 60° automatic oscillating and quick locking ladder attachments are options

**Vertical elevation control and safety stop release**

When mounted on a ladder attachment, the nozzle may be lowered below the 30° stop. When the nozzle is raised back above 30°, the spring loaded stop release will snap back into position automatically, limiting the elevation of the nozzle with respect to the base at 30°.

**Portable base**

The portable base allows the monitor to be positioned in places that are not accessible with a fire truck. The legs are made of titanium and will flex when in use to compensate for

small ground irregularities. It is intended for a maximum flow of 2000 liters per minute.

**Site selection**

Safety operation of the monitor on the portable base begins with site selection. The site should be a safe distance from the fire yet within the reach of the nozzle stream. Select a flat even surface within 8 feet of a sturdy stationary object that can be used as an attachment point for the anchor strap. Set up the portable base with the anchor point between the portable base and desired target of the nozzle stream.

**Maintenance**

A positive advantage of the POK monitor is they require very little maintenance. However, in order to maintain optimal functioning of these monitors we advise you to apply grease to the greaser(s) frequently with the genuine POK grease. You will find several greasers on your monitor.

**TECHNICAL SPECIFICATIONS**

Flow	500 GPM at 100 PSI - 2000 l/mn at 7 bars
Weight	12 kg
Vertical range	80°
Material	Aluminium
Leg	Fold away titanium leg with carbide tips

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
POK Portable Oscillating Monitor	1	09122003

## Insulated Fireman's Axe with Pouch

Insulated fireman's axe with leather pouch.



### Applications

Firefighting department, axe is primary used for breaking down doors and windows.

### Features axe

- handle is made of rubber
- can be carried in the fire fighting harness
- used by fire fighters in marine vessels

### Insulated axe and pouch

For firefighting department

### TECHNICAL SPECIFICATIONS

#### Axe

Material	Blade: steel DIN EN 10083-2, class A DIN 7287 Tubular: steel EN 10083-2 - C45 Grip cover : impact proof, non-aging plastic
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Length axe	32 cm
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Weight	Appr. 1 kgs
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Insulation value	Insulated handle tested to 10.000 volts
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Color	Black handle, red axe
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#### Pouch

Material	Leather
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Dimensions	230 x 215 mm
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Weight	0.2 kg
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Color	Black
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### ORDER INFORMATION

Description	Unit Sales	Articlenr
Insulated Fireman's Axe, 32 cm, exluding pouch	1	SG03803
Leather Pouch	1	SG03804

## Streamlight Propolymer 3N LED Flashlight

The 3N alkaline battery-powered flashlight features (3) three ultra bright white LEDs.



### Features

- Impact resistant polymer body and face cap
- Unbreakable polycarbonate lens with scratch resistant coating
- Features momentary blink or constant "on" tail switch
- Up to 120 hours continuous runtime

- Features an integral pocket clip
- Available in red and grey

### Accessories

- Holster
- Lanyard

### Streamlight LED Flashlight

ATEX zone 0 approved

### TECHNICAL SPECIFICATIONS

Model	Propolymer 3N LED Zone 0
Material	Plastic
Light strength	30 Lumen
Maximum uptime	120 hours
Weight	60 gr
Dimensions	13.3 X 2.4 cm
Burn time light source	100.000
Approvals	DEMKO 04 ATEX 0406954 II 1G EEx ia IIC T4

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Streamlight Propolymer 3N LED Flashlight, Zone: 0	1	SG04115
Battery, Duracel PC2400 LR3 Size: AAA	1	SG04103

## Peli Super SabreLite™ Flashlight

The SabreLite™ flashlight has an exclusive state-of-the-art Laser Spot Xenon™ lamp module that produces a tightly focused white light beam.



### Features

- Super Sabrelite™ Zone 1 is made of unbreakable ABS material with a hi-impact polycarbonate lens. Its lamp module is made of precision aluminium, high pressure Xenon™ fixed and sealed reflector with glass frontage that produces a focused collimated white light beam
- belt clip, stainless steel split ring and black lanyard allowing the flashlight to be attached to a pocket, belt or a hand
- accidental turn on and mechanical switch failure is eliminated because of the rotary on/off switch
- it also includes a safety battery tray with 3C cell Alkaline batteries (not included) in order to avoid accidents if the cells are inverted
- submersible to 150 meters

### Peli Super SabreLite zone 1

ATEX approved

### TECHNICAL SPECIFICATIONS

Light strength	12000 Candle Power
Weight (with batteries)	340 gr
Dimensions	50 x 120 mm
Battery time	5-6 hours at 10°C
Approvals	II 2G EEx e ib IIC T4 ATEX Zone 1

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Peli: Super SabreLite Flaslight Zone 1, ATEX	1	SG04111

# Peli StealthLite 2460 Flashlight, Zone 1

Peli's Rechargeable StealthLite™ is a powerful indestructible flashlight with an unbreakable corrosion proof ABS body and hi-impact polycarbonate lens. Its Laser Spot Xenon™ lamp module gives an extremely bright white beam, which can cut through water, smoke, fog and rain, making it a perfect light source for all applications. This flashlight is ATEX approved.



## Features

It is a highly recommended flashlight to be used within shipping, industrial and fire applications because it is very powerful, light weight and attachable to any work helmet.

The state-of-the-art smart charger allows for a fast 2-3 hour charge time while the LED light

indicates the charge state of the battery and eliminates overcharging and over heating. The Rechargeable StealthLite™ has a one handed on/off locking switch plus a heavy-duty lanyard and is water resistant (not for diving applications). It is for ATEX, FM and CSA approved.

## Peli StealthLite 2460 Flashlight, Zone 1

Very powerful and light weight

## TECHNICAL SPECIFICATIONS

Light source	LED
Lumen	112
Light strength	153 m
Length	17.8 cm
Volt	4,80
Operation time	4,5 hours
Batteries	4 Alkaline 'AA' Cells
Weight (without batteries)	120 gr
Weight (with batteries)	220 gr
Color	Yellow
Approvals	UL ATEX, Zone 1 (Category 2)

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Peli StealthLite 2460 Flashlight, Zone 1	1	04143030
Peli StealthLite Flashlight, 220V, including charger	1	SG04112
Peli Stealth Lite Flashlight Lamp module	1	04143032

# Bright Star 200201 ATEX Flashlight

ATEX approved for use in hazardous locations.



## Features

- a dual switch - rotating head or push button
- an impact resistant design that is able to survive a 30 foot drop
- Xenon bulb provides 30,000 Candlepower
- pre-focused spot beam
- non-conductive
- key-ring lanyard and belt clip standard
- xenon bulb

## Components

- contact strip: brass
- lanyard: braided nylon (black)
- belt clip: super - tough nylon
- switch boot: thermoplastic elastomer (TPE)
- tube: super - tough nylon
- lens: polycarbonate with thermoplastic elastomer (TPE)
- reflector: ultem 1000

## Bright Star 200201 Flashlight

ATEX approved

## TECHNICAL SPECIFICATIONS

Light strength	30,000 BC
Length	170 mm
Weight	200 gr
Power source	2 C Cell
Bulb Lamp	Xenon
Lamp life	15 hours
Appr. burn time at continuous use	5 hours and 40 min
Appr. burn time at intermittent use	6 hours and 30 min
Battery time	30 hours
Color	Orange, yellow or black
Approvals	UL, CSA and MSHA ATEX II

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Brightstar Flashlight ATEX Zone 1 / Orange	1	SG04113

## Fire Proof Lifeline

Lifelines for firefighters outfit are intended of being attached by means of a snap-hook to the harness of a firefighter. Especially suited for marine fire fighters, MED approved.



### Features

The lifeline has a carabiner hook with a screw cap hook on one side. For the end connection the polyester cover is removed at the end of

the wire rope. The end connection is with a thimble end the wire rope is pressed with a ferrule. A shrink hose is covering the ferrule.

### Fire proof life line

MED approved

### TECHNICAL SPECIFICATIONS

Material	- Galvanized steel wire rope 6X19+PP core 5 mm according to specification 619N5 in tensile strength of 1770 N/mm <sup>2</sup> - woven cover sheet of Polyester yarns made out of Trevira CS of thickness approximately 1,5 mm - Carabiner hook in acc. to DIN 5299 Form C 100 x 10 mm WLL 350 kg
Length line	30 meters
Approvals	MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Proof Life Line with hook, 30 meter, MED approved	1	SG03823
Fire Proof Life Line with hook, 40 meter, MED approved	1	SG03825
Fire Proof Life Line with hook, 45 meter, MED approved	1	SG03826
Fire Proof Life Line with hook, 50 meter, MED approved	1	SG03827



## Fire Resistant Safety Belt

Fireman's work positioning belt is especially designed for fire brigades. They are exclusively intended to prevent falls from a height in hazardous areas.



### Fire Resistant Safety Belt

To prevent falls from a height

#### Features

When putting on the fireman's work positioning belt, the belt itself is wrapped around the body and closed by pulling the webbing end through the alloy frame, going back with it through the two-pin buckle and hooking the metal inserts into this. After that the webbing end is pulling through and fixed by the fitted webbing loops. The belt has to fit the body tightly.

#### Optional

The belt is optional equipped with carabiners with screw locking devices or Twistlocks. The multifunctional eye on the carabiner snaphook of the fireman's work positioning belt is a special feature for fire brigades and is intended exclusively for use with trained personnel. This multifunctional eye is for guiding loads to upper or lower levels.

#### Usage

The fixed lanyard is used for work place positioning (positioning or restraint purposes) and attaches to the anchor point by a carabiner snaphook. The anchor point has to be at or above waist level and should bear a minimum load of 10 kN according to EN 795. In fall hazardous areas the lanyard must always be tensioned to limit the free room of movement to maximum 0,6 meters.

#### Important

A fireman's work positioning belt is definitely not a full body harness. The positioning belt should be owned by the user individually and is only allowed to be used by seriously trained personnel.

### TECHNICAL SPECIFICATIONS

Carbine	Twistlock
Weight	1.030 gr
Approvals	DIN 14927

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Resistant Safety Belt, size 3	1	SG03848

## Bag for Fireman's Outfit

Bag to store fireman's outfit.

### Suitable for

- 1 x Dräger Nomex Fireman's Suit
- 1 x Dräger HPS 4300 firefighter's helmet

- 1 x Seco fireman's gloves EN 659 (2003)
- 1 x Fireman's SA Boots



### Fireman's bag

For fire fighters (equipment not included)

### TECHNICAL SPECIFICATIONS

Color	Yellow and red
Dimensions	60 x 36 x 35 cm
Material	PVC Bisonyl

### ORDER INFORMATION

Description	Unit Sales	Article n°
Bag for fireman's suit (equipment not included)	1	SG03882

# Fire Blanket

A fire blanket is designed to smother a fire by cutting off its oxygen supply. The fire blanket is placed in a plastic wall container.



## Features

- a fire blanket is a safety device designed to extinguish small starting fires

- it consists of a sheet of fire retardant material which is placed over a fire in order to smother it
- fire blankets are folded in to a quick-release container for ease of storage

## Fire Blanket (normal)

To extinguish small fire

## TECHNICAL SPECIFICATIONS

Material	Composition E glass Yarn: Warp: EC9 68 Ex Yarn: Werft: EC9 68 Ex Finish: 2 side white silicone coating 2 x 35 gm/m <sup>2</sup>
Blanket sizes	1200 x 1200 mm: container size: 210 x 165 x 40 mm 1200 x 1800 mm: container size: 280 x 165 x 40 mm 1800 x 1800 mm: container size: 460 x 165 x 40 mm
Color	Container: Red Blanket: White
Approvals	Kitemark: BS EN 1869 / BS EN ISO 9002

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire blanket, 100 x 100 cm	1	SG00481
Fire blanket, 120 x 120 cm	1	18101002
Fire blanket, 120 x 180 cm	1	SG00483
Fire blanket, 180 x 180 cm	1	SG00484
Users manual Fire blanket in English	1	SG00485

## Covers for all fire extinguishers

Protection covers for portable and movable fire extinguishers. Designed for i.e. shipping and offshore environments.



### Features of protection covers for wheeled fire extinguisher covers

- all seams double stitched
- heavy hook and loop fastener closings with loops for quick removal in case of a emergency

- cover made heavier by a galvanized chain which is fully enclosed in the bottom seam to prevent the cover been blown off by strong winds
- depending on the extinguish agent an appropriate stripping is marking the cover

### Cover for portable and wheeled fire extinguisher

Designed for shipping/offshore environments

### TECHNICAL SPECIFICATIONS

Type	Covers portable fire extinguishers	
Material	650 gr/m <sup>2</sup> flame retardant PVC	
Color	Red with white logo	Red with white logo
Type	Covers wheeled fire extinguishers	
Material	650 gr/m <sup>2</sup> flame retardant PVC	
Color	Cover: Red Striping dry powder: Blue Striping foam: Beige Striping CO <sub>2</sub> : Black	

### ORDER INFORMATION



Description	Cover for portable fire extinguisher 6-12 kg/liter	Cover for wheeled dry powder extinguisher 25 kg, blue strip, made heavier	Cover for wheeled dry powder extinguisher 50 kg, blue strip, made heavier	Cover for wheeled powder extinguisher 100 kgs, blue strip, made heavier	Cover for wheeled foam extinguisher without striping, made heavier
Articlenr	SG00322	18107020	SG00321	18107013	SG00327

## Covers for all fire extinguishers



Description	Cover for wheeled foam extinguisher 45/50 liter, beige strip, made heavier	Cover for wheeled foam extinguisher 155 liter, beige strip, made heavier	Cover for wheeled CO2 extinguisher 10/20 kg, black strip, made heavier
Articlenr	SG00325	SG00326	SG00328

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## Brackets for all fire extinguishers

Wall brackets for 2 till 12 kgs fire extinguishers.



### Marine bracket CO2

Wall bracket for fire extinguishers 5 kgs and 6 kgs. Can be used for carbon dioxide extinguishers. Fitted with nylon securing strap to keep the extinguisher in place under all conditions.

### Marine bracket for powder / foam / water

Wall bracket for fire extinguisher. Can be used for dry powder, foam or water extinguishers. Fitted with nylon securing strap to keep the extinguisher in place under all conditions.

### Marine bracket CO2

Fitted with nylon securing strap

## TECHNICAL SPECIFICATIONS

Material bracket	Bracket: mild steel / powder coated / Black
Material securing straps	Securing straps: Nylon webbing with PVC snap lock
Dimensions	25 x 900 mm
Fixation CO2 extinguisher	Bracket fitted with 3 predrilled holes 4 mm
Fixation powder/foam/water extinguisher	Bracket fitted with 4 predrilled holes 5 mm

## ORDER INFORMATION



Description	Universal bracket for powder or foam extinguishers	CO2 bracket standard, 5 kgs	Marine bracket with strap for dry powder, foam and water, 6 to 12 kgs	Marine bracket with strap for CO2 for 5 kgs extinguishers	Galvanised bracket with 2 straps
Articlenr	18108008	18108020	SG00334	SG00337	SG00339

# Brackets for all fire extinguishers



Description	Marine bracket with strap for CO2, 2 kgs (small)	Inland shipping bracket for powder extinguisher
Articlenr	SG00338	18108019

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## Hansen Sealife 150N Life Jacket

Hansen Sealife Life Jacket has a practical, space-saving design, which makes for a compact fit in onboard cabinets. The volume is 30 to 35% less than most of other life jackets.



**Hansen Sealife Life Jacket**

For a compact fit

### Features

- easy to don
- waist belt suitable to lift wearer out of water in emergency
- retro reflective tape (8 pieces)
- light pocket
- adjustable chin strap for correct head angle
- securely fastened whistle
- easy adjustable belt

- floating buddy line in separate pocket
- life jacket safety light included

### Available sizes: Adult - Child - Infant

- Adult - Height: 155 cm, Weight: 43 kg
- Child - Height: 100-150 cm, Weight: 15 - 43 kg
- Infant - Height: 100 cm, Weight: 15 kg

### TECHNICAL SPECIFICATIONS

Type	Solid life jacket
Color	International approved 290 orange
Size	Infant-child-adult
Dimensions (packed)	320 x 290 x 230 mm
Dimensions (unpacked)	1040 x 290 x 120 mm
Weight	Hansen Sealife adult = 0.64 kgs Hansen Sealife child = 0.56 kgs Hansen Sealife infant = 0.48 kgs
Approvals	MED, SOLAS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sealife Life Jacket, safety light included	1	SG05011



# Hansen Sealife TP Life Jacket

Hansen Sea Life TP Life Jacket comes in adult and child models and is approved according to the newest NMD (Norwegian Maritime Directorate) requirements as a thermal life jacket.



## Features

- protects against drowning
- insulation that counteracts hypothermia / heat loss from the head, neck, chest and groin
- designed to protect vital body parts and reduce cold shock

- derives as a regular jacket and is easy to put on
- "impossible" to slip out of when properly worn
- provides good sight and freedom of movement
- approved to the latest SOLAS/ IMO requirements as a thermal life jacket

**Hansen Sealife TP Life Jacket**  
With thermal protection

## TECHNICAL SPECIFICATIONS

Type	Solid life jacket
Color	International approved 290 orange
Size	child-adult
Dimensions (unpacked)	1040 x 290 x 120 mm, excluding size of thermal protection jacket
Approvals	SOLAS

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sealife TP Life Jacket, safety light included	1	SG05012

## Secumar Golf 150N Life Jacket

A good value, this fully automatic inflatable life jacket is designed for tough jobs. Protective cover made of robust nylon fabric. Very light weight and with a compact design. Buoyancy chamber and protective cover are separate components and in the case of wear and tear can be replaced independently of each other.



### Secumar Golf 150N Life Jacket

An inflatable life jacket for tough jobs

#### Applications

- water board authorities
- customs
- police
- locks
- dock workers
- inland waterways
- hydraulic engineering
- dredging
- underground engineering
- sewerage works
- stevedoring

#### Features

- the inflatable life jacket Golf 150 is available in an option with SPR-Protection cover for welding and hard-wearing purposes (washable)
- buoyancy chamber system: bright orange buoyancy chamber in navy blue protective cover
- standard equipment: whistle

### TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	150N
CO2-cartridge size	32 gr
Color	Navyblue, Orange (=SPR)
Closure	Front buckle
Emergency light	Optional
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Golf 150N Life Jacket, safety light not included	1	20110001
Seculux CFX-II Life Jacket light	1	SG05602

## Secumar DV 150N Life Jacket

Its compact and ergonomic design makes it a very light jacket offering a great freedom of movement. The protective stole and the buoyancy chamber are independent and can be changed independently if worn.

### Applications

- Suitable for high seas. For the wearers of foulweather clothing.

### Features

- Two tones whistle with cord
- Multi-language instruction, service label
- Transport bag
- 300 cm<sup>2</sup> of M3 reflective strap
- Equipped with an oral valve
- Automatic inflator SECUMATIC 3001S
- Automatic activation as the SECUMAR pills are in contact with water
- Three green indicators show readiness of the inflation device

- buoyancy chamber system: bright yellow buoyancy chamber in navy blue protective cover
- The torque lock (Positorque®) prevents autonomous release of the CO<sub>2</sub> cartridge due to shaking and vibration. Three indicators for all 3 necessary requirements: SECUMAR pill inserted, CO<sub>2</sub> cartridge inserted correctly and release lever secured correctly.
- The service badge on the waist belt shows you at a glance when your lifejacket should be serviced again in the SECUMAR service.



### Secumar DV 150N Life Jacket

Inflatable universal safety vest

### TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	150N
CO <sub>2</sub> -cartridge size	32 gr
Temperature range	Storage: -54°C to +70°C Use: -10°C to +70°C
Weight	Approx. 0.8 kg
Color	Navyblue, Yellow
Closure	Front buckle
Emergency light	Optional
Approvals	DIN EN ISO 12402-3, CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar DV 150N Life Jacket, safety light not included	1	20110012
Seculux CFX-II Life Jacket light	1	SG05602

## Secumar Priva 275N L life jacket

This entry-level model has everything needed for safety on the waters. Favorable price in relation to good technology, easy to refill and pack, and a reliable 3001S torque protection (against patching of the cartridge) have contributed to this predicament.



**Secumar Priva 275 L Life Jacket**  
An inflatable life jacket for tough jobs

### Applications

- Universal application for inland and maritime navigation.

### Cover

- With integrated lifebelt / harness (according to DIN EN ISO 12401)
- Loops (3.2 kN)
- Material: Polyamide fabric
- Color: Black
- Closed with: hook and loop fastener closure
- Front fitting: stainless steel

### Float

- Standard Float
- Mouth valves
- Material: polyurethane-coated
- Polyamide fabric
- Color yellow
- Reflective strip: 400 cm<sup>2</sup> (3M<sup>®</sup>)

### Inflation

SECUMATIC 3001S Automatic activation with water contact. Torque protection (Positorque<sup>®</sup>) prevents the CO2 cartridge

from being released independently by vibration and vibration.

- Triggering element: SECUMAR pill
- Three indicators:
  1. Secumar pill inserted,
  2. CO2 cartridge inserted correctly,
  3. Trigger lever secured correctly.

### Equipment

This lifejacket comes complete with the following equipment:

- Operation manual
- 2-tone flute

### Optional accessories

For this rescue vest, we also offer the following accessories:

- Replacement CO2 cartridge (56 g, TN 929)

### Features

- Buoyancy chamber system: Bright orange buoyancy chamber in navy blue protective cover
- Standard equipment: Whistle

## TECHNICAL SPECIFICATIONS

Weight	ca. 1.1 kgs
Size	Suitable for persons from 40 to 120 kgs From 85 to 150 cms chest size
Temperature	Storage temp.: -54° C to +70° C Operating temp.: -10° C to +60° C
Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	275N
CO2-cartridge size	56 gr
Color	Black and yellow
Closure	Front buckle
Emergency light	Optional
Approvals	DIN EN ISO 12402-2, DIN EN ISO 12401, CE

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Priva 275N Life Jacket, safety light not included	1	20110019

## Secumar Golf 275N Life Jacket

A good value, this fully automatic inflatable lifejacket is for tough jobs. Protective cover made of robust nylon fabric. Very light and with a compact design. Buoyancy chamber and protective cover are separate components and in the case of wear and tear can be replaced independently of one other.



### Applications

- water board authorities
- customs
- police
- locks
- dock workers
- inland waterways
- hydraulic engineering
- dredging

- underground engineering
- sewerage works
- stevedoring

### Features

- buoyancy chamber system: Bright orange buoyancy chamber in navy blue protective cover
- standard equipment: whistle

### Secumar Golf 275N Life Jacket

An inflatable life jacket for tough jobs

### TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	275N
CO2-cartridge size	56 gr
Color	Navyblue, Orange (=SPR)
Closure	Front buckle
Emergency light	Optional
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Golf 275N Life Jacket, safety light not included	1	20110009
Seculux CFX-II Life Jacket light	1	SG05602

## Secumar Golf 275N Neon Life Jacket

A good value, this fully automatic inflatable life jacket is designed for tough jobs. Very light and with a compact design. Buoyancy chamber and protective cover are separate components and in the case of wear and tear can be replaced independently of each other. Closure at the front by click batter.



### Applications

- water board authorities
- customs
- police
- locks
- dock workers
- inland waterways
- hydraulic engineering
- dredging
- underground engineering
- sewerage works
- stevedoring

### Features

- buoyancy chamber system: PU-buoyance chamber system, signal orange, protective cover
- standard equipment: whistle, 3M® - reflecting stripes

The Golf Neon distinguishes itself from a standard Golf life jacket by a cover which is provided with reflective material on the front of the cover. As a result, a higher degree of visibility is being provided. By making use of smooth material, the cover foul less rapidly.

### Secumar Golf 275N Neon Life Jacket

An inflatable life jacket for tough jobs

### TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	Effectieve 280N
CO2-cartridge size	56 gr
Color	Orange
Color cover	Navyblue, yellow
Closure	Front buckle
Emergency light	Optional
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Golf 275N Neon Life Jacket, safety light not included	1	20110026

## Secumar Golf 275 FR AC anti-static and flame retardant life jacket

Proven universal commercial 275N life jacket with anti-static and flame retardant properties (EN 1149-3 / EN ISO 14116 Index 1) for all activities in an explosive environment around water with fluorescent yellow cover and extra retro-reflective strips for higher visibility.



**Secumar Golf 275 FR AC Life Jacket**  
Antistatic and flame retardant

### Features

The compact folded life jacket with removable protective cover has a single buoyancy chamber. Once inflated, the back strap automatically holds the life jacket in the correct position. With its adjustable waist belt and back strap the life jacket can be individually adjusted to the size of the user. By using anti-static and flame-retardant materials and covering all fittings GOLF 275 FR AC has antistatic and flame retardant properties according to EN 1149-3 and EN ISO 14116 Index 1. In conjunction with appropriately approved protective clothing electrostatic discharges are safely excluded. The highly visible cover in fluorescent yellow with extra large reflective strip improves visibility.

### Comfort and freedom of movement

Thanks to its compact construction, the wearing of the life jacket is barely noticeable and guarantees optimum freedom of movement. Nevertheless, their buoyancy chamber reaches a buoyancy of 280 Newtons.

### Donning and doffing

Equipped with the patented SECUMAR CLICK-buckle the donning and doffing of the Golf 275 FR AC is very easy and is easy to operate even with gloves on.

### Maintainability

Since the inflatable buoyancy chamber and protective cover are detachable, servicing is made much easier and the cover can be easily replaced.

## TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	275N, effective 280N
CO2-cartridge size	56 g
Color	Orange
Color cover	Yellow
Closure	Front click buckle
Emergency light	Optional
Approvals	DIN EN ISO 12402-2 DIN EN 1149-3 DIN EN ISO 14116 Index 1

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Golf 275 FR AC Antistatic and Flame Retardant Life Jacket	1	SG05482

## Secumar Alpha 275N Window Neon Life Jacket

Almost 100% more buoyant compared to the Alpha 150. The Secumar Windows system: you can see from the outside if the inflation machine is ready for use. You can also see on the outside if the CO2 cartridge is full.



### Applications

- water board authorities
- customs
- police
- locks
- dock workers
- inland waterways
- hydraulic engineering
- dredging
- underground engineering
- sewerage works
- stevedoring

### Features

- the closure is from Secumar Click. Only when you press the two red buttons, the lock will open. Opening by accident, for example, is prevented
- improved fit so that the life jacket is better accepted by the carrier and thus often worn even compared to the Alpha 150
- float system: signal orange float in navy blue protective, patented folding
- standard equipment: storage pouch with zipper, inspection window, storage box for name, cruciate-loops, washable and removable fleece collar, whistle and storage bag

### Secumar Alpha 275N Window Neon Life Jacket

An inflatable life jacket for tough jobs

### TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 4001S
Buoyancy	275N, effective 290N
CO2-cartridge size	60 gr, CO2 dock
Color	Orange
Color cover	Navyblue, yellow
Closure	Click attachment
Emergency light	Optional
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Alpha 275N Window Neon Life Jacket, safety light not included	1	SG05481



## Secumar Golf 275 Twin SOLAS SPR PLB Life Jacket

275N SOLAS approved life jacket for industrial and professional application, for water engineering, inland waterways, offshore, high seas. Suitable for work with particularly high mechanical loads for the life jacket as well as for work on welding equipment. Integration possibility for the EPIRB Sea Marshall sMRT AU9 and AU10.



### Secumar Golf 275 Twin SOLAS SPR PLB Life Jacket

An inflatable life jacket for tough jobs

#### Applications

- Specifically developed life jacket for the requirements in the offshore use (oil and gas).
- Due to a special coating of the protective cover the life jacket is extremely tear and abrasion resistant and can even withstand sparks and small metal splashes (according to DIN EN 348). On the front there is a hook and loop fastener panel for attaching a name tag.
- To improve the wearers comfort softer material and a removable neck fleece was used in the collar area. The back strap is detachable and adjustable.
- Through the window in the protective cover the status of the PLB is visible at a glance.
- The service zipper allows access to the automatic 3001S and the manual override and the operation of the PLB without fully opening the protective cover.
- With the patented SECUMAR CLICK-buckle the donning and doffing of the life jacket is very easy, it is donned like a normal jacket. The fitting opens only when you press TWO keys - accidental opening by hanging is impossible.
- The buoyancy chamber is equipped with antenna mounts and bags for the PLB's Sea

Marshall sMRT AU9 & AU10. By inflating the life jacket, the antennas will set up independently and enable the best possible dispersion of the signal. The PLB will be activated automatically by contact with water.

#### Features

- Distress light SECULUX CFX-II
- Two-tone-whistle
- Crotch strap
- Manual override (stowed in cover of inflation device)
- Buddy line
- Spray hood
- Fittings for antenna and bags for the PLB Sea Marshall sMRT AU9 & AU10

#### Standard equipment

Window and Service-Zipper for PLB, Service-Zipper for inflation device, neck-fleece (detachable), hook and loop fastener for name tag, detachable and adjustable back strap, crutch strap loops, crutch strap, emergency light SECULUX CFX-II, Buddy-Line, two-tone-whistle, SECUMAR Click-buckle, manual override, spray hood, fittings for antenna and pocket for PLB SeaMarshall sMRT AU9 and AU10.

### TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic Inflator 3001S and Manual Inflator SECU 301SM
Buoyancy	275N
CO2-cartridge size	60 gr
Color	Yellow
Color cover	Orange (SPR) / blue
Closure	Click front buckle
Emergency light	Yes
Approvals	DIN EN ISO 12402-2 (CE-sign), SOLAS 74, IMO Res. MSC.81(70) amended by MSC.200(80), MSC.207(81) and MSC.226(82)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Golf 275 Twin SOLAS SPR PLB Life Jacket	1	SG05483

# Hansen Sea Lion Life Jacket 150N

The Hansen Sea Lion Life Jacket is specially designed for use as a combined working/abandonment life jacket.



## Applications

The life jacket is designed to be worn when the user is wearing heavy duty clothing or with an abandonment suit - where it guarantees to self right the wearer in less than 5 seconds. The Patented interlocking lobe design also creates an effective wave barrier preventing water channeling into the airways. The life jacket design gives neck and head support which is particularly vital for an unconscious wearer.

## Features

- patented interlocking lobe design
- 150N Newtons buoyancy
- high visibility fabric
- wide range of options
- contoured head and neck support
- lightweight and comfortable to wear
- automatic firing mechanisms
- retro-reflective tape
- whistle
- grab loop
- locational light

## Hansen Sea Lion Life Jacket

Inflates automatically when it comes in contact with water

## TECHNICAL SPECIFICATIONS

Model	150N
Material	PVC cover
Sizes	XS-XXL
Color	Black cover, yellow vest
Approvals	SOLAS Chapter III 2010

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Lion Life Jacket, 150N, safety light included	1	SG05211

# Hansen Sea Lion Life Jacket 275N Standard

The Hansen Sea Lion Life Jacket is specially designed for use as a combined working/abandonment life jacket.



### Applications

The life jacket is designed to be worn when the user is wearing heavy duty clothing or with an abandonment suit - where it guarantees to self right the wearer in less than 5 seconds. The Patented interlocking lobe design also creates an effective wave barrier preventing water channeling into the airways. The life jacket design gives neck and head support which is particularly vital for an unconscious wearer.

### Features

- patented interlocking lobe design
- 275N Newtons buoyancy
- high visibility fabric
- twin chamber security
- wide range of options
- contoured head and neck support
- lightweight and comfortable to wear
- two independent chambers
- automatic firing mechanisms
- retro-reflective tape
- whistle
- grab loop
- locational light

### Hansen Sea Lion Life Jacket

Inflates automatically when it comes in contact with water

### TECHNICAL SPECIFICATIONS

Model	275N standard
Material	PVC cover
Sizes	XS-XXL
Color	Black cover, yellow vest
Approvals	SOLAS Chapter III 2010

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Lion Life Jacket, 275N, safety light included	1	SG05212

## Hansen Sea Lion Life Jacket 275N Offshore

The Hansen Sea Lion Life Jacket is specially designed for use as a combined working/abandonment life jacket.



### Hansen Sea Lion Life Jacket

Inflates automatically when it comes in contact with water

#### Applications

The life jacket is designed to be worn when the user is wearing heavy duty clothing or with an abandonment suit - where it guarantees to self right the wearer in less than 5 seconds. The Patented interlocking lobe design also creates an effective wave barrier preventing water channeling into the airways. The life jacket design gives neck and head support which is particularly vital for an unconscious wearer.

#### Features

- patented interlocking lobe design
- 275N offshore Newtons buoyancy

- high visibility fabric
- twin chamber security
- wide range of options
- contoured head and neck support
- lightweight and comfortable to wear
- two independent chambers
- automatic firing mechanisms
- retro-reflective tape
- whistle
- grab loop
- locational light

#### Including

- spray hood
- crotch strap

### TECHNICAL SPECIFICATIONS

Model	275N Offshore
Material	PVC cover
Sizes	XS-XXL
Color	Black cover, yellow vest
Approvals	SOLAS Chapter III 2010

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Lion Life Jacket, 275N Offshore, safety light included	1	SG05213

## Secumar Alpha 275 Twin SOLAS Tetra 3D Life Jacket

The Secumar Alpha 275 3D life jacket is recommended for wearers of immersion suits, insulated clothing or survival suits: Two triangular air chambers form a long lever which quickly turns the body into a safe position on your back.



### Secumar Alpha 275 Twin SOLAS Tetra 3D Life Jacket

To combine with immersion suits, insulated clothing or survival suits

#### Applications

- water board authorities
- customs
- police
- locks
- dock workers
- inland waterways
- hydraulic engineering
- dredging
- underground engineering
- sewerage works
- stevedoring

#### Features

- buoyancy chamber system: Bright orange buoyancy chamber in 3D-Design in navy blue protective cover, patented folding
- standard equipment: Zip pocket, inspection window, pocket for name tag, crotch strap loops, detachable neck fleece, whistle, mesh storage bag

#### TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of Inflator	3001S 60g + 301SM 56g
Buoyancy	290N
CO2 cartridge size	60 gr
Color	Navyblue
Closure	Frontal click buckle
Approvals	CE/MED/SOLAS

#### ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Alpha 275 Twin SOLAS Tetra 3D Life Jacket, safety light included	1	20110017

## Secumar Twin Solas 275N Golf Life Jacket

Standard SOLAS life jacket with double chamber system for rugged use. Cover of durable nylon fabric. The first chamber inflates automatically on. When there is a defect, the second chamber is activated manually. The life jacket has a high buoyancy volume that it gives the wearer stability in heavy seas as well as providing a large amount of freeboard and turning moment.



**Secumar Twin Solas 275N Golf Life Jacket**  
High buoyancy volume

### Applications

- water board authorities
- customs
- ocean shipping
- police
- locks
- dock workers
- inland Waterways
- hydraulic Engineering
- dredging
- underground Engineering

- sewerage Works
- stevedoring

### Features

- side fastening
- CO<sub>2</sub> cylinder 2 x 56 g
- distress light
- lifting harness
- double-chamber system
- optional crotch strap
- front fastening

### TECHNICAL SPECIFICATIONS

Type of buoyancy / Method of inflator	Inflatable / 3001S 60g + 301SM 56g
Buoyancy chamber system	Bright orange buoyancy chamber with Dual-Chamber-Membrane Technology and overpressure valve in navy blue protective cover.
Standard equipment	Crotch strap loops, buddy line and whistle
Color	Navy blue
Harness	Option
Approvals	SOLAS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Twin Solas 275N Golf Life Jacket, safety light included	1	SG05484

# Challenger Offshore Interlock 275N Life Jacket

The Interlock 275 is specially designed for use as a combined working/abandonment life jacket. With 300 Newtons it is designed to be worn when the user is wearing heavy duty clothing or with an abandonment suit - where it guarantees to self right wearer in less than five seconds. The Patented interlocking lobe design also creates an effective wave barrier preventing water chaneling into airways. The life jacket design gives neck and head support which is vital for an unconscious wearer.



## Challenger Offshore Interlock 275N Life Jacket

Specially designed for use as combined working/abandonment life jacket, with optional spray hood

### Features

- patented interlocking lobe design
- 300 Newtons buoyancy
- high visibility fabric
- twin chamber security
- wide range of options
- contoured head and neck support
- lightweight and comfortable to wear

- grab loop
- locational light
- hard wearing red nylon cover

### Design options

- a wide range of cover options
- including heavy duty PVC and Panotex fire proof covers
- deck harness system
- spray hood
- buddy line
- strobe light
- crotch strap

### Specification

- two independent chambers each with 300N
- automatic firing mechanisms
- retro-reflective tape
- whistle

## TECHNICAL SPECIFICATIONS

Size	Adult: one size fits all
Packing size	380 x 120 x 100 mm
Color	Red
Approvals	Fully complies with the latest amendments to SOLAS Champter III and approved by U.K.M.C.A and M.E.D (Ship Wheel) plus EN399 NSN 4220-99-608-9320

## ORDER INFORMATION

Description	Unit Sales	Articlern
Challenger Offshore Interlock 275 N Life Jacket, safety light included	1	SG05451

## ResQ Marine 275N interlock life jacket

This new life jacket is designed to meet the new SOLAS 2010 requirements listed in the IMO resolution SOLAS chapter III 2010.



ResQ Marine 275N interlock life jacket

### Features

- new improved design
- guarantees to self right the wearer in less than 5 seconds
- 300 Newtons buoyancy
- high visibility fabric
- twin chamber security
- contoured head and neck support
- lightweight and comfortable to wear
- fully approved to the latest amendments in SOLAS Chapter III 2010
- comfortable wearing due to the new designed back support

### Specification

- twin independent chambers each with 300N
- automatic firing mechanisms
- retro-reflective tape
- whistle
- grab loop
- location light
- buddy line
- produced using components that conform to ISO 12402

### TECHNICAL SPECIFICATIONS

Size	One size
Color	Orange and yellow
Approvals	Produced using components that conform to ISO 12402 SOLAS 2010

### ORDER INFORMATION

Description	Unit Sales	Articlenr
ResQ Marine 275N interlock life jacket	1	20112021



# ResQ Marine 150N interlock life jacket

This new life jacket is designed to meet the new SOLAS 2010 requirements listed in IMO resolution SOLAS chapter III 2010.



ResQ Marine 150N interlock life jacket

### Features

- new improved design
- guarantees to self right the wearer in less than 5 seconds
- interlocking lobe design
- high visibility fabric
- twin chamber security
- lightweight and comfortable to wear
- fully approved to the latest amendments in SOLAS Chapter III 2010
- the unique bladder shape features
- comfortable wearing due to the new designed back support

### Specification

- twin independent chambers
- automatic inflation system
- retro-reflective tape
- whistle
- grab loop
- location light
- buddy line
- produced using components that conform to ISO 12402

## TECHNICAL SPECIFICATIONS

Size	One size
Color	Orange and yellow
Approvals	Produced using components that conform to ISO 12402 SOLAS 2010

## ORDER INFORMATION

Description	Unit Sales	Articlenr
ResQ Marine 150N interlock life jacket	1	20112020

## Work Life Jacket Stearns ILV-465

Stearns most versatile industrial flotation vest. Tough nylon shell with seven-piece foam design for all-day comfort. Features four roomy pockets for accessories with full hook and loop closures and a rustproof Vislon® zipper.



### Features

- multiple foam inserts for exceptional flexibility and freedom
- quick-adjust side tabs for secure fit and comfort
- 3M™ Scotchlite™ Reflective Material SOLAS-grade 6755 for high visibility
- eyelets for attaching lights, badge, etc.
- minimum 15-1/2 lb. buoyancy

### Work Life Jacket Stearns ILV-465

Designed for all-day comfort

### TECHNICAL SPECIFICATIONS

Color	Orange
Size	S to XXXL
Approvals	USCG Approved Type III NSN 4220-01-252-386

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Work Life Jacket Stearns ILV-465	1	SG05455

# Hansen Sea Eco Immersion Suit

The Hansen Sea Eco Immersion Suit has been manufactured in waterproof flame retardant 4.5 or 5 mm neoprene, which provides insulation and buoyancy. Emergency suit for Fishing and Merchant vessels. The immersion suit can be delivered vacuum packed, so the suit doesn't need to be serviced for 10 years.



## Features

- double glued seams and approved reflector tape
- leg fasteners keep feet in place in the boots
- delivered with handy carrier bag or air-tight package
- delivered as a one-size suit = standard (can be manufactured in x-large)
- can be delivered vacuum packed, so the suit doesn't need to be serviced for 10 years

## Basic Product

Suit with neoprene cuffs, gloves attached with elastic band, attached hood, leg fasteners, neoprene face seal, approved reflector tape and attached hoodie.

## Available sizes

- one size fits all: 150 - 200 cm
- x-large: to 210 cm

## Important notice

SUIT HAS TO BE USED WITH AN APPROVED LIFEJACKET

## Hansen Sea Eco Immersion Suit

Provides insulation and buoyancy

## TECHNICAL SPECIFICATIONS

Materials	Flame retardant 4.5 or 5mm neoprene
Sizes	One size fits all and x-large
Weight	One size fits all: 4.5 kgs XL: 5.0 kgs
Color	International approved orange
Approvals	IMO/SOLAS 2,3 and resolution MSC-152 (78) / MED

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Eco Immersion Suit, size standard	1	SG05412
Hansen Sea Eco Immersion Suit, size standard, vacuum packed	1	SG05416
Hansen Sea Eco Immersion Suit, size XL	1	SG05413
Hansen Sealife Life Jacket, safety light included	1	SG05011

## Hansen Sea Eco Plus Immersion Suit

The Hansen Sea Eco + Immersion Suit has been manufactured in waterproof flame retardant 5 mm neoprene, which provides insulation and buoyancy. The immersion suit can be delivered vacuum packed, so the suit doesn't need to be serviced for 5 years.



**Hansen Sea Eco + Immersion Suit**  
Buoyancy pillow in back

### Features

- 6h - Immersion suit IMO/SOLAS
- buoyancy pillow in back ensures correct floating position and freeboard
- flame retardant 5 mm neoprene
- emergency light
- with buddy line and floating hook
- lifting strap with stainless D-ring and carabine hook
- easy donned, waterproof PU-zip
- approved reflective patches
- fixed hood
- watertight cuffs
- gloves attached by elastic bands

- hook and loop fastener tighteners in legs
- rubber soles for optimal grip on slippery surface
- may be vacuum packed for extended service intervals (maximum 5 years)

### Available sizes

- medium: 147 - 180 cm
- standard: 150 - 200 cm
- x-large: 180-210 cm

### Important notice

SUIT TO BE USED WITHOUT LIFE JACKET

### TECHNICAL SPECIFICATIONS

Material	Flame retardant 5 mm neoprene
Sizes	Medium, standard and x-large
Weight	Medium: 4,4 kgs, standard: 5,4 kgs, x-large: 5,8 kgs
Color	International approved orange (290)
Size packed in carrier bag	Medium: 65 x 45 x 24 cm Standard: 65 x 45 x 26 cm X-large: 65 x 45 x 28 cm
Size packed in vacuum	Medium: 65 x 45 x 20 cm Standard: 65 x 45 x 20 cm X-large: 70 x 45 x 18 cm
Colour of bag	Medium: yellow, standard: red, x-large: green
Approvals	IMO/SOLAS 2,3 and resolution MSC-152 (78) / MED, RMRS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Eco + Immersion Suit, size Standard	1	20115044
Hansen Sea Eco + Immersion Suit, size M	1	20115043
Hansen Sea Eco + Immersion Suit, size X-large	1	20115045

# Hansen Sea Nordic Immersion Suit

The Hansen Sea Nordic Immersion Suit has been manufactured in waterproof flame retardant 5 mm neoprene, which provides insulation and buoyancy. The hood has an integrated inflatable cushion to improve water tightness and allow variation of the floating position. Approved 6 hour immersion suit with an anatomic self rightening unit. For fishing vessels, merchant ship and offshore use. The immersion suit can be delivered vacuum packed, so the suit doesn't need to be serviced for 5 years.



## Hansen Sea Nordic Immersion Suit

For offshore, merchant ships and fishing vessels

### Features

- Basic principle for design of this suit is identical to the N6-Basic. The main difference is that the suit shall be used without a life jacket as the required 120 mm freeboard is achieved by the suit alone. The hood has an integrated inflatable cushion to improve water tightness and floating position.
- The suit is complete with an approved emergency light, whistle, and retro reflective material. The suit features reinforced seams. The suit is also fitted with a lifting loop and a floating buddy line. A splash hood is an optional extra and can be attached on delivery or later.
- Comes with light and handy carrier bag, or vacuum packed for efficient storing on board.

- The suit may be manufactured in size XL, and with fixed gloves with watertight zippers.

### Basic Product

Dry Suit with fixed hood, watertight cuffs, attached gloves, leg fasteners, floating buddy line, lifting loop, light and reflective tape.

### Available sizes

- medium: 147 - 180 cm
- standard: 150 - 200 cm
- x-large: 180-210 cm

### Optional Extra

Spray hood

### Important notice

SUIT TO BE USED WITHOUT LIFE JACKET

## TECHNICAL SPECIFICATIONS

Materials	Waterproof flame retardant 4.5 or 5 mm neoprene
Color	International approved 290 orange and reflectors
Sizes	Medium, standard and x-large
Weight	Medium: 5.5 kgs Standard: 5.0 kgs X-large: 6.0 kgs
Size packed in carrier bag	Medium: 63x36x23cm, in yellow bag Standard: 68x40x20cm, in orange bag X-large: 75x43x20cm, in green bag
Size packed in vacuum	Medium: 63x34x17cm Standard: 68x39x17cm X-large: 73x40x18cm
Approvals	SOLAS, MED 96/98/EC

## Hansen Sea Nordic Immersion Suit

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Nordic Immersion Suit, size standard	1	SG05452
Hansen Sea Nordic Immersion Suit, size M	1	SG05452
Hansen Sea Nordic Immersion Suit, size XL	1	SG05452
Hansen Sea Nordic Immersion, size standaard, comes with sprayhood	1	SG05422
Hansen Sea Nordic Immersion, size XL, comes with sprayhood	1	20115042

# Hansen Sea Arctic Immersion Suit

The Hansen Sea Arctic Immersion Suit has been approved 6 hour immersion suit with an anatomic self righting unit. Suit to be used without life jacket. Emergency suit for fishing vessels, merchant ships and offshore installations. The immersion suit can be delivered vacuum packed, so the suit doesn't need to be serviced for 5 years.



## Hansen Sea Arctic Immersion Suit

Immersion suit with an anatomic self righting unit

### Features

The Hansen Sea Arctic Immersion Suit passes NMD requirements for self-righting insulated immersion suits for installations on the Norwegian Offshore sector.

The Sea Arctic Immersion Suit has a self-righting unit with automatic activation. The elastic cover keeps it out of the way after use.

The suit shall be used without a life-jacket as the required 120 mm freeboard is achieved by the suit alone. The hood has an integrated inflatable cushion to improve water tightness and allow variation of the floating position.

The suit is complete with an approved emergency light, whistle, and retro reflective material. The suit features reinforced seams. The suit is also fitted with a lifting loop and a

floating buddy-line. The splash hood is removable and fitted by means of heavy duty hook and loop fastener.

Comes with light and handy carrier bag, or vacuum packed for efficient storing on board.

### Basic Product

Dry Suit with fixed hood, watertight cuffs, attached gloves, leg fasteners, floating buddy line, lifting loop, light, reflective tape, spray hood and self-righting unit.

### Available sizes

- medium: 147 - 180 cm
- standard: 150 - 200 cm
- x-large: 180-210 cm

### Important notice

TO BE USED WITHOUT LIFE JACKET

## TECHNICAL SPECIFICATIONS

Materials	Waterproof, flame retardant 5mm neoprene
Sizes	Medium, standard and x-large
Weight	Medium: 5.8 kgs Standard: 6.3 kgs X-large: 7.0 kgs
Size packed in carrier bag	Medium: 72x46x18 cm, in yellow bag Standard: 74x48x20 cm, in orange bag X-large: 76x50x22 cm, in green bag
Size packed in vacuum	Medium: 70x40x18 cm Standard: 72x42x20 cm X-large: 74x44x20 cm
Color	International approved 290 orange and reflectors
Approvals	IMO/SOLAS 2,3 and resolution MSC-152 (78) Norwegian NmD-rules for "mobile offshore units"

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Arctic Immersion Suit, size standard	1	SG05461
Hansen Sea Arctic Immersion Suit, size medium	1	SG05461
Hansen Sea Arctic Immersion Suit, size XL	1	SG05461
Hansen Sea Arctic Carrier Bag	1	20115046

## Viking immersion suit PS2007

PS2007 is a neoprene immersion suit with built-in buoyancy. The built-in buoyancy gives excellent freeboard and ensures that the suit can be used without a lifejacket. This is an advantage in emergency situations with little time to put on a lifejacket.



**Viking immersion suit PS2007**  
Immersion suit with built-in buoyancy

### Features

The suit is made of highly flexible, high quality neoprene to ensure easy donning and fit. This also gives the product a longer lifespan. The suit has extended zipper providing the suit a better in-water performance and ensures quick donning. The extended zipper provides more comfort for the user and minimizes water ingress.

The yellow colour ensures high visibility. Some of the main features are integrated neoprene boots with rubber soles, three fingered neoprene gloves, buddy line, lifting becket and a SOLAS approved emergency light. All suits are produced in-house according to stringent manufacturing requirements.

### Application areas

- Cargo vessels
- Fishing vessels
- Navy
- Offshore personnel

### Design features

- Lifting becket with snap hook and covered D-ring on breast
- Buddy line
- Semi-integrated neoprene gloves
- SOLAS approved emergency light
- Extended zipper
- Whistle
- Comes in a bag

### TECHNICAL SPECIFICATIONS

Materials	Neoprene, 5 mm
Size	58/Oversize: Height from 170 cm to 210 cm, weight from 80 kg to 160 kg
Weight	One size: 6.3 kgs XXL: 7 kgs
Packing size	700 x 500 x 150 mm / comes in storage bag or airtight packaging
Color	High visibility yellow and reflectors
Approvals	MED SOLAS, RMRS, Transport Canada

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Viking Immersion Suit PS2007 Solas Oversized	1	20115015



## Hansen E-300-2 Work Suit

The Hansen E-300-2 Work Suit is suitable for rescue personnel for the evacuation of ships and for use on MOB vessels. The outer material is flame retardant, waterproofed textile in international orange. It is thus a warmth reflecting material.



### Applications

Underneath is a layer of foam with closed cells which both insulates and provides buoyancy. All the seams are sewn and welded. Cuffs with adjustable straps and gloves in separate pockets on the arms. Reinforced at the knees, elbows and seat. Comes with light and boots with a steel toe-cap and approved reflectors.

### Features

- PU coated flame retardant, waterproof Oxford nylon
- Tyvec body warmth reflecting inner layer
- 3 mm flotation foam with closed cells for insulation and buoyancy

- detachable inner lining
- watertight zip and hood closure
- PVC reinforcements on elbows, knees and seat
- boots with steel toe cap
- cuffs with adjustable straps
- integral safety harness with stainless steel ring and carbine hook
- zip and elastic on legs for tight fit
- liaison line
- whistle
- 2 side pockets
- 9 reflective strips
- neoprene gloves and emergency light

### Hansen E-300-2 Work Suit

For heavy duty work on deck and for use in MOB operations

### TECHNICAL SPECIFICATIONS

Persons height, weight suit	Suit size	Boot size
155-165 cm, 5.7 kgs	XS	41
165-175 cm, 6.1 kgs	S	43
175-185 cm, 6.6 kgs	M	46
185-195 cm, 7.0 kgs	L	46
195-205 cm, 7.1 kgs	XL	46
Color	International approved 290 Orange	
Approvals	IMO/SOLAS, MED 96/98/EC AES (Anti Exposure Suit)	

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen E-300-2 Work Suit	1	SG05419
When ordering, please mention the preferred suit size		

## Hansen SeaMOB Work Suit

SeaMob SOLAS approved anti-exposure work suit / survival suit for extreme cold water conditions.



### Applications

- Perfect for MOB boats
- Elastic and good fit
- Three fingered gloves in sleeve pockets
- Leg tightening zips to adjust fitting
- Integral /manually inflatable buoyancy lung.

### Features

- For rescue personnel during evacuation and MOB Operations
- 3 mm flame retardant, waterproof neoprene providing insulation and buoyancy
- Waterproof PU zip
- Double-welded seams
- Solas approved reflective patches
- Reinforcements on elbows, knees and seat

- Lifting strap with D-ring and carabine hook
- Integrated manually inflatable buoyancy lung for floating position and freeboard
- Sleeve pockets for gloves
- Boots may be used with flippers
- Buddy line with floating hook, whistle and emergency light
- Neoprene gloves and double neoprene cuffs
- Radio Pocket
- SOLAS approved and in accordance with Marine Equipment Directive 96/98/EC (MED-B) AES (Anti-exposure Suit), designed to be worn without a lifejacket

### IMPORTANT NOTICE

Approved for use without a lifejacket.

### Hansen SeaMOB Work Suit

For rescue personnel, evacuation and MOB operations

### TECHNICAL SPECIFICATIONS

Persons height, weight suit	Suit size	Boot size
140-150 cm, 5,6 kgs	XS	41
150-165 cm, 5,8 kgs	S	41
165-180 cm, 5,8 kgs	M	43
180-190 cm, 6,2 kgs	L	45
190-198 cm, 6,6 kgs	XL	47
199-205 cm, 6,6 kgs	XXL	47
Color	International approved 290 Orange	
Approvals	IMO/SOLAS, MED 96/98/EC, AES (Anti Exposure Suit)	

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea MOB Work suit, size M	1	SG05431
Hansen Sea MOB Work suit, size L	1	SG05432
Hansen Sea MOB Work suit, size XL	1	SG05433
Hansen Sea MOB Work suit, size XXL	1	SG05434

# Hansen Sea Wind Work Suit

The Sea Wind suit is designed for personnel working with offshore wind farms and for offshore rope access technique operators.



**Hansen Sea Wind Work Suit**  
Ultra light weight, 1.6 kgs only

**Features**

- designed for optimal ergonomy
- tested to meet the IMO/SOLAS regulations for 1 hour immersion suit
- optimised for use of all fall arrest and seat harness
- special life jacket (Hansen Sea Lion 275N) available and needs to be ordered separatly
- super light weight
- breathable fabric (Gore Tex)
- drysuit w/feet and easy access
- soft waterproof zip
- pit-zips for enhanced ventilation
- hi-vis colour
- reinforcement at exposed areas
- mesh Pockets with room for hood, gloves and necessities (PLB, pens etc) + inner pocket
- construction with special attention to freedom of movement
- super Soft Neoprene closures in neck and wrists

**Maximum comfort**

The Sea Wind suit is very light and constructed to offer maximum ergonomics

and comfort for the wearer. It is approved to meet the IMO/SOLAS regulations for an 1 hour immersion suit without internal buoyancy. The IMO/SOLAS buoyancy requirement will be covered when the user puts on an IMO/SOLAS life jacket. Hansen Protection will in addition to the regular inflatable life jacket range offer a specially designed life jacket that can be integrated to the suit in order to ensure necessary buoyancy and freeboard.

**Higher safety**

The Sea Wind suit is fitted with watertight pit-zips to help ventilation and regulate the wearers temperature. Further it is fitted with a number of pockets to store tools and communication equipment or PLB, gloves, hood, a whistle and a buddy line. The suit will be delivered with watertight socks so the wearer can choose footwear of own choice.

**Ultra light**

Sea Wind is made of high performance Gore-Tex fabrics with good waterproof breathable properties. Ultra light, 1.6 kg only!

**TECHNICAL SPECIFICATIONS**

Materials	Highly breathable GoreTex
Size	XS to XXXL
Weight	1.6 kgs
Color	Black and yellow
Approvals	Suit: Certification as a 1 hour Suit according to IMO/Solas LSA Code (MSC 207 (81) MSC 226 (82) class D) and EN ISO 15027-1 (Constant Wear Suit) Status: Certification testing finished and OK Integrated life jacket: Twin chamber IMO/Solas LSA Code 150N/275N. Harness: Harness certified acc. to EN 361 Underwear: FR (wool/viscose) according to EN ISO 11612 (TBA) Shoes: EN ISO 2035, Hard toe, GoreTex, Energy absorbent, Oil resistant

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Hansen Sea Wind Work Suit - Size S	1	SG05427
Hansen Sea Wind Work Suit - Size M	1	SG05471
Hansen Sea Wind Work Suit - Size L	1	SG05472
Hansen Sea Wind Work Suit - Size XL	1	SG05473
Hansen Sea Wind Work Suit - Size XXL	1	20115054
Hansen Sea Lion Life Jacket, 275N, safety light included	1	SG05212

## Hansen Sea Breeze CTV SOLAS

SeaBreeze CTV - A constant wear 1 hour Solas suit for tough and demanding environments. Designed with focus on ergonomics, comfort and durable light weight fabrics, making it an ideal alternative for CTV wind farm transfer.



### Features

- SOLAS approved 1 hr 5°C water
- Ergonomic – pre-shaped construction with 100% freedom of movement
- Breathability – durable HP superlight fabrics with highly breathable properties
- Lightweight shell to reduce weight
- Waterproof zip in neoprene neck seal for easy donning and comfort
- Pockets - roomy waterproof pocket placed to ensure ease of access

- For easy integration with safety equipment such as harness and/or SeaLion lifejacket, the suit has no details on chest and back
- Socks
- Seperate soft comfortable neoprene hood stored on back
- Neoprene gloves in forearm pockets
- Knee and seat reinforcement

**Must be worn with warm clothing and in conjunction with a compatible approved lifejacket only**

### Hansen Sea Breeze SOLAS

For tough and demanding environments

### TECHNICAL SPECIFICATIONS

Sizes	S-XXL
Color	Yellow and gray
Approvals	SOLAS, MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Breeze SOLAS - Size S	1	20115055
Hansen Sea Breeze SOLAS - Size M	1	20115056
Hansen Sea Breeze SOLAS - Size L	1	20115057
Hansen Sea Breeze SOLAS - Size XL	1	20115058
Hansen Sea Breeze SOLAS - Size XXL	1	20115059

# Hansen Sea Work Suit

Hansen Sea Work is a work-suit/constant wear suit developed in close contact with demanding user-groups in the maritime environment. The suit is intended for use by maintenance workers in exposed areas. The suit is highly ergonomic in construction and offers the user several extra features compared to a conventional abandonment suit for emergency use only.



## Features

- PU coated flame retardant, waterproof Oxford nylon
- Tyvek® body warmth reflecting inner layer
- 3mm buoyancy foam with closed cells for insulation and buoyancy
- detachable inner lining
- watertight zip
- soft Neoprene hood, enables the use of hard hats for protection
- reinforcements on elbows and knees
- boots with steel toe cap
- cuffs with adjustable straps
- integral safety harness with stainless steel ring and carbine hook
- buddy line
- whistle
- 3 arm and 2 leg pockets
- reflective tapes
- neoprene five finger gloves and emergency light

## Hansen Sea Work Suit

For heavy duty work on deck and for use in MOB operations

## TECHNICAL SPECIFICATIONS

Sizes	XS-XXL
Color	International approved 290 Orange
Approvals	IMO/SOLAS, MED 96/98/EC AES (Anti Exposure Suit)

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Work Suit, Anti Exp. Suit - 3 hour When ordering, please mention the preferred suit size	1	20115034
Hansen Sea Work Suit, Immersion Suit - 1 hour When ordering, please mention the preferred suit size	1	On request
Hansen Sea Work Inner Lining	1	On request
Hansen Sea Lion Life Jacket, 275N, safety light included	1	SG05212
Hansen Sea Lion Life Jacket, 150N, safety light included	1	SG05211
Hansen Sea Lion Life Jacket, 275N Offshore, safety light included	1	SG05213

# Hansen Sea Air Transport Suit

For offshore, helicopter transport and as a personal abandonment suit on the installation.



## Features

- outer layer in 100% waterproof, flame retardant fabric
- inner lining that provides insulation and buoyancy. An Intelligent fabric stabilise the inside temperature of the suit and reduces body sweat significantly
- double-welded seams and approved reflective tape
- approved emergency light, buddy line, integrated lifting strap and open collar for rescue
- insulated three finger gloves with waterproof zipper and inside cuffs with pulse warmer
- lightweight and soft fixed boots with extra insulation
- integrated manually inflatable buoyancy lung and emergency re-breathing system (ERBS)
- prepared for approved automatic self-righting system
- designed for improved sitting comfort
- integrated HPL-1 Emergency locator beacon
- hood in super elastic neoprene laminate
- spray hood

## Hansen Sea Air Transport Suit

Cools in the heat and warms in the cold

## TECHNICAL SPECIFICATIONS

Material	outer layer in 100% waterproof, flame retardant fabric
Size	XS - 4XL
Weight	5.1 - 7.1 kgs
Color	International approved 290 Orange
Approvals	SOLAS, MED 96/98/EC, ETSO, NMD

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Air Transport Suit - When ordering, please mention the preferred suit size	1	20115040

# Hansen Sea Pass Passenger Suit

The Hansen emergency suit on board of passenger vessels and recreational vessels.



## Features

- PU coated Nylon
- required use of additional approved life jacket on the outside of the suit
- insulated hood
- front zipper with waterproof inner lining
- attached 5-finger gloves
- adjustable ankle straps
- allows for use of shoes both inside as well as on the outside
- approved reflective tape
- the suit with approved life jacket is approved as substitute to thermal life jackets according to NMD regulations
- supplied in a vacuum watertight packed bag, takes a minimum of space
- tested and approved in accordance with ISO/SFD requirements for non-insulated immersion suits

## Hansen Sea Pass Passenger Suit

On board of passenger and recreational vessels

## TECHNICAL SPECIFICATIONS

Materials	Pu coated Nylon
Size	50 - 100 cm / 100-150 cm / 150 - 200 cm
Weight	0.3 kgs / 0.7 kgs / 0.9 kgs
Color	200 Fluor Orange

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Pass Passenger Suit - Available sizes: baby, junior/child, standard	1	SG05466

## Daniamant W4-A Life Jacket Light

The light activates automatically when in water and can be turned off manually if required.



**Daniamant W4-A Lifejacket Light**  
Manually / Automatically

### General information

We offer lithium based technology survivor location lights as our preferred choice of battery technology. This is due to lithium's superior power and ability to work at extreme temperatures, whilst having a longer life once activated. This light currently lasts for over 60 hours at the required 0.75cd light output. The light activates automatically when immersed in water and will remain lit once water activated to allow for rescue scenarios involving an unconscious survivor. The light can be turned off manually if required by pressing the switch.

### One light fits all

In addition to this Daniamant present a new lifejacket light concept. Previously you could buy a light for recessed jackets or for inflatable jackets but this was two different

lights. Now Daniamant have designed a light that can be used on any jacket, you just choose the clip/receptacle that you want to match your jacket requirement.

When fitted to the 50mm belt clip, the light can attach to almost any lifejacket. When fitted to the inflator tube clip, the light can attach to almost any inflatable jacket. When fitted to the recessed receptacle, the light maintains the unique ultra-low profile that was specifically designed for lifejackets used on vessels with evacuation chute systems for mass evacuation of passengers.

### Maintenance

The DAN W4-A units are maintenance free, but some checks should be made annually, please see our user instructions for more details.

### TECHNICAL SPECIFICATIONS

Types	Daniamant W4-A
Color	Orange
Light output	Minimum 0.75 cd
Light duration	Minimum 8 hours
Light type	White flashing LED
Material	ABS & Polycarb
Storage temperature	-30°C to + 65°C
Operational temperature	-1°C tot + 30°C
Storage life	5 years
Weight - nominal	42 gr
Battery	Alkaline
Activation	Water / manual
Dimension	60.9 x 29.9 x 21.2 mm (l x w x h)
Approvals	SOLAS / MED / USCG

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Daniamant W4-A Life Jacket Light	1	SG05736



# Daniamant W3 Life Jacket Light

Water activated. Approved according to EC and USCG.



### General information

All Daniamant life jacket lights are designed to deliver, as a minimum standard, the 0.75cd output specification and 8 hour duration required by IMO SOLAS regulations.

### Features of the light

This new, low profile light is a single compact flashing unit. The light is emitted through an

ultra low profile dome, making the light less susceptible to damage during evacuation. Easily fitted with two different backing plates, one to go over a thin strap and one to go over a 5cm belt. This is the automatic version of Dan M3. The light activates automatically when in water and can be turned off manually if required. The light has the same attachment arrangement as DAN M3.

### Daniamant W3 Life Jacket Light

Life jacket light with clip

### TECHNICAL SPECIFICATIONS

Color light	Blue
Light – Output	Minimum 0.75 cd
Light – Duration	Minimum 8 hours
Light – Type	Flashing LED
Material	ABS Polycarbonate / TPE
Storage Temperature	-30°C to + 65°C
Operating Temperature	-1°C to + 30°C
Storage Life	5 years
Weight – Nominal	35 gr
Battery Type	Lithium Manganese Dioxide
Activation	Water / Manual
Approvals	SOLAS / MED / USCG

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Daniamant W3 Life Jacket Light	1	SG05603

## Seculux CFX-II Life Jacket Light

Automatic SOLAS life jacket light, 75 cm cable between battery and light, at least 4 years. For all inflatable life jackets and foam life jackets.



**Seculux CFX-II Life Jacket Light**  
Manual switch off

### Function

The life jacket light SECULUX CFX II functions in sea and fresh water at low temperatures, and has a manual off switch. The light and battery are separate components, there are various easy ways of fitting the light, and it is easily stowed in your life jacket.

### Features

- fully automatic water-activated light works in both fresh water and seawater
- lightweight, compact design for easy stowage
- easy to secure with built-in attachment clip
- classed as non hazardous transportation
- can be used with all Secumar life jackets

### TECHNICAL SPECIFICATIONS

Diameter of lightbase	37 mm
Dimensions of battery	25 x 35 x 45 mm
Light intensity	0,75 candela
Light duration	8 hours
Weight	80 gr
Power source	Lithium battery, 2x 3 Volt
Wire length	75 cm
Lifetime	5 years from date of manufacture
Approvals	EC Type Approval ('Wheelmark') SOLAS #161.112/56/0 US Coast Guard #161.012/56/0

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Seculux CFX-II Life Jacket Light	1	SG05602

# ACR HemiLight™3 Life Jacket Light

The choice of cruise lines worldwide, the ACR Auto HemiLight™3 flashing survival light attaches to almost any style life jacket to safely meet USCG, MED and SOLAS requirements.



### Design

Smaller than other approved lights, the HemiLight™3 features rounded edges to maintain the integrity of inflatable life jackets. Attachment loops accommodate up to 5 cm (2 in) wide webbing, and the marine tough design ensures years of useful service.

### 20+ hours activation

The high-intensity flashing LED light automatically activates for 20+ hours when it comes in contact with salt or fresh water, and

can be deactivated simply by pushing the red button.

### Installation

Installation is quick and easy, the HemiLight™3 can be retrofitted to almost any style life jacket in a matter of seconds.

### Configurations

Available in two configurations: the HemiLight™3 offers a basic strobe mode which can be activated either manually or automatically.

## ACR HemiLight™3 Life Jacket Light

Operates in fresh and salt water

### TECHNICAL SPECIFICATIONS

Dimensions	6.19 x 30.2 x 2.87 cm
Weight	28 gr
Materials	Polycarbonate
Color	Yellow
Activation	Automatic when in contact with water (fresh or salt), deactivate via manual off button.
Waterproof	Water tight to 3 meters Meets IMO standard
Beam angle	All directions of the upper hemisphere
Operational life	Exceeds 8 hour requirement Typical operational life of 20 hours
Operating temperature	-1°C to 30°C
Stowage type	-30°C to 65°C
Approvals	USCG SOLAS, MED SOLAS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
ACR HemiLight™3 Life Jacket Light	1	SG05601

## Alcares Jack Life Jacket Light

The light is an automatic water activated light type with a manual on/off switch and a constant light type.



**Alcares Jack Life Jacket Light**  
Manual switch on/off

### Function

The light is an automatic water activated light type with a manual on/off switch, and a constant light type. It is activated by moving the activation arm around the corner clockwise thereby enabling the automatic mode. The light will then turn on, if in contact with water. After being activated, the light stays turned on disregarding the water contacts are lifted out of the water. The light is deactivated by moving the activation arm around the corner anti clockwise. If the light after disruption is brought back to automatic mode, and water contacts are dry, splash water on the contacts and the light goes on again. Activation and deactivation is clearly marked on the label.

### Features

- with a height of only 16 mm this light can easily fit into any life jacket without hampering movement of life jacket material
- this extremely visible LED light is an automatic water activated light with a manual on/off switch
- the light can be equipped with two different types of clips to meet different requirements for attachment rounded edges ensure life jacket integrity
- light intensity is well above the 0,75 cd approved standard
- do not recharge, incinerate or dismantle the light! Disposal of lights should be done in accordance to regulations

### TECHNICAL SPECIFICATIONS

Types	Alcares / Jack AF or Jack AL-ALK
Dimensions	88 x 42 x 16 mm / 85 x 42 x 16 mm (l x w x h)
Height dome	9 mm / 9 mm
Material	Polycarbonate / Polycarbonate
Weight	56 gr / 67 gr
Battery	Nonhazardous lithium / Alkaline
Storage life battery	5 years storage life (store between -30°C and +65°C)
Operational life	8 hours / 8 hours
Operational temperature	- / -1°C tot + 30°C
Light intensity	- / minimum 0.80 candela
Approvals	Jack AF: Solas MED 96/98/EC, USCG, TC, AMSA, RS Jack AF - ALK: Solas MED 96/98/EC

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Alcares Jack Life Jacket Light, type: Jack AL-ALK	1	SG05604

# Man Over Board MOB1 personal locator device

The worlds smallest personal locating AIS Man Over Board device with integrated DCS. The MOB1 is intended to be installed within the life jacket and will activate automatically on inflation, sending the first alert within 15 seconds. In an emergency MOB1 provides two methods of rapidly communicating your location back to the vessel, plus providing visual indication.



**MOB1 Man Over Board**  
Personal locator device

**Rapid rescue**

The best chance of rapid rescue if you fall overboard comes from your own vessel. Your crew needs to be immediately aware of the incident and keep track of your position whilst recovery is carried out. Even in the most moderate seas it is alarming how quickly a visual sighting of a man overboard can be lost.

**Precise location**

Once activated your MOB1 will transmit an alert to all AIS receivers and AIS enabled plotters in the vicinity. The integrated GPS ensures precise location is sent to your vessel and any others that may be assisting. An

additional feature of the MOB1, is its ability to activate the DSC alarm on your vessels VHF, alerting your crew to the situation.

**Compatibility**

Most modern AIS plotters and DSC VHF comply with the standards required to receive the MOB transmissions. It is recommended that you check compatibility with the equipment manufacturer, particularly if you are using older equipment.

**Strobe light**

The integrated strobe light ensures maximum visibility in low light conditions.

**TECHNICAL SPECIFICATIONS**

Communication method	AIS (Automatic Identification System) DSC (Digital Selective Calling)
Dimensions	Height 134 mm Diameter 38 mm
AIS transmission Transmit Power	1Watt
Frequency	161.975/162.025MHz
DSC Transmission Transmit Power	0.5Watt
Frequency	156.525MHz
Messages	Individual Distress Relay Distress Alert (by single call made on press of the activation button)
Temperature range	-20°C - +55°C (operational)
Temperature range	-30°C - +55°C (storage)
Waterproof	10 meter depth
Weight	92 grams
Battery lifetime	7 years
Approvals	RTCM SC11901, EN303 098-1

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Man Over Board MOB1 personal locator device	1	SG05811

## Sea Marshall AU9X PLB

Within 2 - 5 seconds of immersion in water, the Sea Marshall AU9X sends a distress signal on 121.5MHz which is then tracked using a sMRT SARfinder base unit. The Sea Marshall AU9X is intrinsically safe and has ATEX approval for Zone 2 areas.



**Sea Marshall AU9X**  
Personal locator device

### Function

The Sea Marshall AU9X works in seconds, sending an emergency alert and tracking on 121.5 MHz, after automatic or manual activation. All nearby vessels will receive the alert and be able to track, using their SARfinder 121.MHz homing signal, to quickly locate and track the man overboard (MOB) casualty.

### Features

- worldwide ATEX Zone 2 approval
- lightweight and easily integrates in to a life jacket
- 2 second auto-activation via immersion in water or manual operation
- minimum of 12 hours emergency transmission on 121.5 MHz - International Search and Rescue frequency
- LED light on antenna for visual tracking
- automatic low battery indicator
- test function to check signal transmission and battery power

### TECHNICAL SPECIFICATIONS

Tx frequency	121.5 MHz (Test Units: 121.65 MHz )
Bandwith	25KHz (in alignment with ETSI)
Modulation	Continuous swept tone A3X
Alerting radius	Surface-to-surface: 2 to 3 nautical miles (100mW) depending on sea state, atmospheric conditions and altitude/height of receiving antenna
121.5 MHz Tx Power Output	100mW
Time to Auto-Activation from READY	2 seconds
Time to Water-Activation Override from OFF	40 seconds
Battery type	2 x CR-AA 3V battery pack
Operating time	minimum 12 hours
Battery service life	1 year (at 20°C)
Operating temperature	-20°C - +55°C
Storage temperature	-55°C - +70°C
Dimensions	90 x 80 x 35 mm, antenna length: 105 mm
Antenna lenght	105 mm
Weight	250 gr including atenna
Internal loudspeaker	80dB
Environmental resistance	IP68, Eurocae ED-14F
Approvals	CE, FCC, ATEX Zone 2 II 3G (AU9-X)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Sea Marshall: AU9X personal beacon locator	1	SG05801
Sea Marshall: AU9X harnas	1	SG05802

# Electronic Distress Flare EDF1

The EDF1 electronic distress flare offers users a safe and long-lasting solution to visual signaling in an emergency.



**Electronic Distress Flare EDF1**  
Visual signaling in an emergency

### Advanced LEDs

The unique lens design combined with the use of advanced LEDs and highly efficient circuit technology ensures a constant level of light output throughout the life of the user replaceable battery.

### Light coverage

The light output is a beam of over 30° throughout the full 360° azimuth, providing in excess of 6 times more light coverage than other electronic flares. Light is also distributed throughout the hemisphere above the unit to ensure visibility from the air.

### Repeatedly usage

Unlike single use pyrotechnic flares the rescueME EDF1 can be used repeatedly in any of its four modes, ensuring continued visibility is maintained over a longer period. The unit is both safe to store and operate while also eliminating any worries associated with disposal.

### Grab bag

The compact size and rugged design means the rescueME EDF1 is the perfect safety product for a grab bag, life raft or hiker's backpack.

## TECHNICAL SPECIFICATIONS

Type	Lithium Primary
Chemistry	LiMnO <sub>2</sub>
AIS transmission Transmit Power	> 6 hours
Temperature range	20°C to +55°C (operational)
Temperature range	30°C to +70°C (storage)
Waterproof	10 meters at +20°C
Weight	155 grams
Size	187 mm x 42 mm
Modes of operation	4 plus SOS signaling
Reach	7 mile / 11,2 km
Battery	Easy change replaceable battery

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Electronic Distress Flare EDF1	1	20121003

## Lifebuoys, 2.5 and 4 kgs

Inherent buoyant lifebuoy for use on board of vessels or offshore installations. Durable synthetic material, reflective striping and grab line.



### Features

- Solas 2.5 kg lifebuoy: the lifebuoy may be fitted with a light & smoke signal
- Solas 4 kg lifebuoy: the lifebuoy may be fitted with a light & smoke signal

### Marking for identification

The lifebuoy shall be marked in block capitals of the Roman alphabet with:

- the name and the port of registry of the ship
- two last digits of year affixed
- not less than 50mm high

### Important notice

Buoy 2.5 kg: not to be used where light and smoke signal is to be fitted and maximum permitted fall height is 30 metres. The 2.5 kg lifebuoy is the standard for inland shipping.

### Lifebuoy

2.5 kg and 4 kg

### TECHNICAL SPECIFICATIONS

Outer diameter	751 mm +/- 2%
Inner diameter	450 mm +/- 2%
Reflective tape	yes
Materials	Buoy ring: EUROPOL RCC 128P Grab line: polyethylene 10 mm
Maximum installation height	60 meter
Color	International orange
Approvals	EC / SOLAS / MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Lifebuoy 2.5 kgs	1	20120066
Lifebuoy 4 kgs	1	20120065
Lifebuoy lanyard, 30 meter	1	SG05722
Lifebuoy cabinet Polyethyleen 30"	1	20120009
Lifebuoy Y bracket, Stainless steel	1	SG05753
Lifebuoy bracket, Stainless steel	1	SG05751
Lifebuoy, lettering	1	20120027



# Lifebuoy Lanyard

Orange lifebuoy lanyard; meets all stringent demands.

## Features

A safety line to attach to a lifebuoy to pull back the lifebuoy.



## Lifebuoy lanyard

Safety line

## TECHNICAL SPECIFICATIONS

Material	Lanyard: Polypropylene Ring: Rubber
Color	Orange
Weight	App. 1.5 kgs for 50 meters

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Lifebuoy lanyard with ring, with 20 meter line	1	SG05721
Lifebuoy lanyard with ring, with 30 meter line	1	SG05722
Lifebuoy lanyard with ring, with 50 meter line	1	20120030
Lifebuoy lanyard with ring, with 60 meter line	1	20120033
Lifebuoy lanyard excluding ring, with 30 meter line	1	SG05724

## Encapsulated Safety Line

It is an encapsulated safety line of 30 meter to suit 24" or 30" lifebuoys.



### Features

It is an encapsulated line made of polypropylene orange rope with a breaking strain of 250 kgs which fits neatly in the inner

diameter of the buoy providing a good stowage facility and protection of the line from environmental deterioration.

### Lifebuoy safety line

Providing a good stowage facility

### TECHNICAL SPECIFICATIONS

Material	Polypropylene
Color	Body: White Rope: Orange

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Encapsulated Safety Line, 30 meter line	1	SG05723

## Lifebuoy Bracket Stainless Steel, standard

Chrome finished steel lifebuoy Y-bracket for installation of a life buoy against the railing or the wall.



### Features

- bracket is pre-drilled

### Lifebuoy bracket stainless steel, standard

For installation against railing or the wall

### TECHNICAL SPECIFICATIONS

Dimensions	Appr. 720 x 380 x 110 mm
Material	3 mm stainless steel
Color	Stainless steel

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Lifebuoy bracket chrome	1	SG05753
Lifebuoy bracket chrome, J shape	1	SG05752

## Lifebuoy, MOB and lifeline bracket, stainless steel

Stainless steel bracket to mount lifebuoy against railings or walls.

### Features

- rigid offshore design will keep buoy in place under the worst weather conditions
- predrilled bracket for various lifebuoy lights

- predrilled installation plate for easy fixation with u-bolts to the railing
- bracket for lifeline



**Lifebuoy bracket**  
Stainless steel

### TECHNICAL SPECIFICATIONS

Dimensions	Appr. 720 x 380 x 110 mm
Weight	5.5 kg
Materials	4 mm stainless steel 316
Color	Non-coated

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Lifebuoy bracket, Stainless steel	1	SG05751

# Daniamant L90 Lifebuoy Light

The Daniamant L90 uses five alkaline batteries, offering a life of one year. Robust and reliable, the Daniamant L90 is automatically activated after release.



## Features

- the Daniamant L90 is supplied complete with a 2.5m lanyard
- minimum 2 cd light output
- minimum 2 hour light duration
- fully MED approved
- IMO SOLAS approved

## Daniamant L90 Lifebuoy Light

Activated after release

## TECHNICAL SPECIFICATIONS

Weight	1080 gr
Dimensions	380 mm
Lamp	4 Volt, 0.6 Amp.
Batteries	5 1.5 Volt LR20
Activation	Self-activating by tilt switch
Approvals	IMO / SOLAS

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Daniamant L90 Lifebuoy Light, bracket and battery included	1	SG05731
Bracket for Daniamant L90 Lifebuoy Light	1	SG05732

## Daniamant L160 Lifebuoy Light

The L160 lifebuoy light is a water-activated system designed for automatic actuation by the act of releasing the lifebuoy to which the unit is attached, such that the battery is unsealed ready for use when the light is pulled from the housing. The light illuminates when the unsealed battery is immersed.



### Features

- the L160 lifebuoy light has a 5-year storage life and uses the famous water-activated, silver chloride-magnesium batteries first developed by McMurdo, for intrinsically safe operation
- the L160 is both corrosion and tamper-proof, so the batteries cannot be removed or expended accidentally, nor can they be

- activated unless removed from the container and floated in fresh or salt water
- the lamp is sealed inside a tough, polycarbonate dome
- in addition to its other advantages, the McMurdo L41B has been designed specifically to be highly resistant to accidental damage onboard ship and to deflect rope impacts

### Daniamant L160 Lifebuoy Light

Designed to be smaller and highly resistant

### TECHNICAL SPECIFICATIONS

Weight	Light 184 gr Complete assembly 310 gr
Dimensions	185 x 70 mm Ø
Approvals	IMO / SOLAS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Daniamant L160 Lifebuoy Light	1	SG05733

# Daniamant L161 Lifebuoy Light

The Lifebuoy light is designed to deliver, as a minimum standard, the 2cd output specification and 2 hour duration required by IMO SOLAS regulations.



## Features

- five year life
- no maintenance or replacement batteries are required
- compact size
- 76 meter drop height, exceeding SOLAS requirement
- easy fitting
- LED technology
- exempt from Class 9 transport requirements
- ATEX Ex proof

## Daniamant L161 Lifebuoy Light

The only water activated intrinsically safe Lifebuoy light

## TECHNICAL SPECIFICATIONS

Weight	300gr
Dimensions	185 x 106 mm
Storage temperature	-30°C to + 65°C
Operating temperature	-1°C to + 30°C
Light output	2 candela
Approvals	SOLAS / MED /ATEX

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Daniamant L161 Lifebuoy Light, ATEX proof	1	SG05735

## Comet red hand flare

The Comet Red Handflare conforms to SOLAS 74/88 as amended. Designed to withstand exceptional environmental exposure and to perform reliably even after immersion in water. Featuring a unique telescopic handle with improved grip, making it very compact for stowage. Easily extended for safe handling and operation by pull wire igniter. Produces hot red flame for 60 seconds at 15000 candela.



### Comet red hand flare

Designed to withstand exceptional environmental exposure

### Applications

For use day or night the Comet red hand flare is a short-range distress signal used to pinpoint position. May be carried on the ship's bridge and is a requirement in ship's lifeboats and life rafts. The hand flare is suitable for use on other commercial and recreational boats. Also available is the Comet White Collision Warn-off hand flare which is for use day or night when a collision danger exists or for the illumination of small areas outside.

### Storage

Ideally, both products should be stored in the robust, specially designed Polybottle, or in a dry, easily accessed location at ambient temperature.

### Operation

1. Pull out red end until telescopic tube is fully extended and engaged.
2. Unscrew red end cap and point away.
3. Pull ball out sharply to fire.
4. Hold at arms length. Point Downwind. End plug ejects after 2 seconds delay.

### TECHNICAL SPECIFICATIONS

Length	175 mm (6.9 ins)
Length with handle pulled out	280 mm (11 ins)
Diameter	28 mm (1.1 ins)
Weight	160 gr (5.6 oz)
Light intensity	15,000 candela
Burning time	60 seconds
Ignition	Pull-wire igniter
Net explosive content	61 gr (2.14 oz)
Approvals	SOLAS 74/88 as amended, IMO resolution MSC. 81(70) Part 1, (MED) 96/98/EC, SBG 426.004, BAM PT1 -1108, USCG

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet red hand flare	1	SG05901



## Pains Wessex hand flare

Red hand-held, short range distress signal. Used to pinpoint location by day or night.



### Features

Burns for 60 seconds at 15,000 candela.  
Features a unique telescopic handle making it very compact and space saving when stowed.  
Easily extended and pull wire operated.

### Applications

- use to signal distress by day or night.
- hand-held and short range flare used to pinpoint position.
- typically 6 hand flares are required to be fitted in SOLAS/commercial life rafts and lifeboats

### Pains Wessex hand flare

Used to pinpoint location

### TECHNICAL SPECIFICATIONS

Length	175 mm (6.9 ins)
Length with handle pulled out	280 mm (11 ins)
Diameter	28 mm (1.1 ins)
Weight	160 gr (5.6 oz)
Light intensity	15,000 candela
Burning time	60 seconds
Color of light	Red
Ignition	Pull-wire igniter
Net explosive content	61 gr (2.14 oz)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Pains Wessex Handflare	1	06130009

# Comet Parachute Signal Rocket, Red

The Comet Red Parachute Signal Rocket conforms to SOLAS 74/88 as amended. Designed to withstand exceptional environmental exposure and to perform reliably even after immersion in water, the pull wire igniter and improved grip provides easy handling. Ejecting a red Flare suspended on a parachute at 300m (1000ft), burning for 40 seconds at 30,000 candela.



**Comet Red Parachute Signal Rocket, red**  
Designed to withstand exceptional environmental exposure

**Applications**

A day or night long-range distress signal. May be carried on the ship's bridge and is a requirement in ship's lifeboats and life rafts, also suitable for use in other commercial and recreational boats.

**Storage**

Ideally, should be stored in the robust, specially designed Polybottle, or in a dry, easily accessed location at ambient temperature.

**Warning**

- ejects rocket projectile - do not point at people or property
- do not fire in a confined space
- keep out of reach of children
- only for emergency use at sea

- if damaged or dented do not use
- do not dismantle
- keep away from source of heat
- do not use after expiry date

**Disposal**

Pyrotechnics must be treated as hazardous waste and must be disposed of responsibly in accordance with local regulations.

**Operation**

- hold signal firmly by ribbed handle. Unscrew RED bottom cap. Do not point at people or property
- hold rocket vertically above head pointing away from body
- ensure hands remain clear of top. To fire - pull red ball sharply down

**TECHNICAL SPECIFICATIONS**

Dimensions	295 x 38 mm Ø
Weight	270 gr (9.45 oz)
Light intensity	30,000cd candela
Burning time	40 seconds
Ignition	Pull-wire igniter
Altitude	300 m (985 ft)
Approvals	SOLAS 74/88 as amended, IMO Resolution 96/98/EC. SBG 425.005. USCG

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Comet Parachute Signal Rocket, red	1	SG05902

# Pains Wessex Red Rocket

Pains Wessex red rocket.



## Pains Wessex Red Rocket

Easy handling

### Applications

A day or night long-range distress signal. 12 should be carried on the ship's bridge and 4 are required in ship's lifeboats and life rafts, also suitable for use in other commercial and recreational boats.

### Features

The Pains Wessex Para Red MK8A Rocket conforms to SOLAS 74/88 as amended. Designed to withstand exceptional environmental exposure and to perform reliably even after immersion in water, the pull

wire igniter and improved grip provides easy handling. Ejecting a red flare on a parachute at 300m (1000ft), burning for 40 seconds at 30,000 candela.

### Usage

Remove red end cap. Hold firmly, vertically above head at arms length. Turn head away and pull toggle. Rocket is ejected instantaneously with a loud report and slight recoil. Be careful not to direct towards people or property.

## TECHNICAL SPECIFICATIONS

Length	295 mm
Diameter	Diameter at handle: 38 mm Diameter: 32 mm
Weight	235 gr
Light intensity	30,000 candela
Burning time	40 seconds
Altitude	300 m
Ignition	Pull-wire igniter
Net explosive content	84 gr

## ORDER INFORMATION

Description	Unit Sales	Articlennr
Pains Wessex Red Parachute Signal Rocket	1	06130005

## Comet Smoke Signal, Orange

The Smoke Signal Orange is a compact, daylight distress signal designed to be easy and safe to handle. It provides effective position marking during rescue operations and can be used to indicate wind direction, producing dense orange smoke for a minimum of 3 minutes.



### Comet Smoke Signal, orange

Designed to be easy and safe to handle

#### Application

The Comet orange smoke signal is a small and compact distress signal for daylight use designed for stowage in liferafts and lifeboats. SOLAS requires 2 smoke signals per raft/boat.

#### Features

- signal for position marking during rescue operations
- indicates wind direction
- safe use on oil or petrol covered water
- conforming to SOLAS 74 as amended
- ideal also for leisure boats

#### Storage

This compact unit is ideally stored in a water-resistant locker at ambient temperature allowing easy access in an emergency or in the robust, specially designed polybottle.

#### Operation

1. Remove plastic cap. Point away from body.
2. Pull tab firmly away from canister. Ensure hand remains clear of HOT END.
3. Throw life smoke overboard immediately. Smoke will be emitted after a 2 second delay.

### TECHNICAL SPECIFICATIONS

Dimensions	114 (h) x 82 (Ø) mm
Weight	370 gr (13.05 oz)
NEC	239 gr (8.43 oz)
Burning time	3 minutes minimum
Colour of smoke	orange
Ignition	percussion ignitor with 2 seconds safety delay
Approvals	SOLAS 74 as amended, Res. MSC 81 (70). Approvals: CE 0589, BAM-P1-0191, 0589-P1-0324, BGV MED 423.008, USCG 160.122./21/0, 160.022/21/0, and other major maritime authorities worldwide.

### ORDER INFORMATION

Description	Unit Sales	Article n°
Comet Smoke Signal, Orange	1	SG05904

# Pains Wessex Orange Smoke Signal

Pains Wessex Orange Smoke Signal.



**Pains Wessex Orange Smoke Signal**  
Small and compact

## Applications

The Pains Wessex life smoke MK8 is a small and compact distress signal for daylight use only, designed for stowage in life rafts. Signal for position marking during rescue operations. Indicates wind direction. Safe to use on oil or petrol covered water. Conforming to SOLAS 74/88 as amended. Two signals are required carriage in SOLAS life rafts and lifeboats. Two are supplied in RORC and Offshore leisure kits.

## Features

The Pains Wessex life smoke MK8 is a compact, flat top, day time distress signal designed to be easy and safe to handle. It provides effective position marking during rescue operations and can be used to indicate wind direction, producing dense orange smoke for a minimum of 3 minutes.

## Usage

Peel off top cap, pull string sharply away from body. A 2 second delay allows time to throw the canister downwind into the water.

## TECHNICAL SPECIFICATIONS

Dimensions	100 x 84 mm Ø
Weight	370 gr (13 oz)
NEC	200 gr (7 oz)
Burning time	3 minutes minimum
Color of smoke	Orange
Ignition	pull-wire igniter with 2 seconds safety delay

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Pains Wessex Orange Smoke Signal	1	06130006

## Comet Light Smoke Signal MOB

The comet light and smoke lifebuoy marker features 15 minutes of dense orange smoke and a self-activated lighting system which far exceeds solas requirements for light output and duration. It is mounted on a ship's bridge wing with the bracket supplied and is attached by line to a lifebuoy. The signal is used to mark the position of a man overboard by day or night. It can be automatically deployed by releasing the attached lifebuoy, or manually activated.



### Comet light and smoke lifebuoy marker

Used in emergency to mark position of man overboard

#### Application

- Day and night signal attached to 4kg lifebuoy and used in emergency to mark position of man overboard
- Provides 15 minutes of dense orange smoke
- Far exceeds SOLAS requirements of 2 hours at 2 candela for light output and duration
- Safe to use on petrol or oil covered water
- Lithium battery sealed for life - no annual replacement
- Automatic or manual deployment
- Universal stainless steel mounting bracket. Usually mounted on a ship's bridge wing
- Tested to survive a 60m drop into water (SOLAS 30m)
- Ideal for use on ships or rigs with high free board

#### Storage

This compact unit is ideally stored in good magazine conditions in an upright position, mounted to its stainless steel bracket in our original packaging.

Onboard vessel: two units are normally required to be carried. Mounted inverted and attached to a Lifebuoy. Usually positioned on each Bridge wing and need a clear, uninterrupted drop into the water.

#### Operation

1. Signal and lifebuoy mounted on bridge wing in ready to fire position.
2. Release locking pin and lifebuoy falls, automatically deploying marker.
3. Alternatively, manually throw lifebuoy overboard.

#### Warning

- Produces dense orange smoke - do not inhale.
- Do not fire in a confined space
- Keep out of reach of children
- Only for emergency use at sea
- If damaged or dented do not use
- Do not dismantle
- Keep away from source of heat
- Do not use after expiry date

#### Disposal

Pyrotechnics must be treated as hazardous waste and must be disposed of responsibly in accordance with local regulations.

#### Approvals

Conforms to SOLAS 74/88 as amended. IMO Resolution MSC 81 (70) part 1. MED.96/98/EC. SBG 422.006 and other maritime authorities worldwide.

### TECHNICAL SPECIFICATIONS

Height	453 mm (17.83ins)
Diameter	275 mm (10.83ins)
Weight	4.7 kgs (10.36 lbs)
Weight - including bracket	6.7 kg (14.77 lbs)
Lamps (bulbs)	2 x 2.4v 1.2A
Operating temp range	-1°C - + 30°C
Storing temp range	-30°C - + 65°C
Colour of light	White
Burning time	15 minutes
Duration	2 candela for 2 hours
Use with lifebuoy weighing	4.0 kgs (8.82lbs)
Attach to lifebuoy with line	4 m (13ft) long, 9.5 mm (0.37ins) diameter

# Comet Light Smoke Signal MOB

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet Light Smoke Signal MOB	1	SG05910

# Comet Line Throwing Device

A self-contained line-throwing appliance consisting of a weatherproof plastic casing with end cap, twist-grip trigger assembly, rocket and line. Fully compliant to the latest international SOLAS legislation, the device has a throwing range of between 230m and 250m and meets world-wide approval standards. A solid propellant is used which guarantees a highly accurate flight path even in strong side winds.



**Comet line throwing device**  
Designed for ease operation

## Applications

The Comet line thrower 250 is designed for ease of operation in the most extreme weather conditions. It can be used in all situations where a line is required to be passed accurately and quickly.

## Features

- all line-throwing operations at sea between vessels, ship-to-shore, shore-to-ship and shore based rescue services
- rescue of swimmers in distress
- line carrying across obstacles and rough terrain

## Storage

This compact appliance is ideally stored in a water-resistant locker at ambient temperature allowing easy access in an emergency. The set of 4 appliances normally carried onboard can be dispersed in strategic positions throughout the vessel.

## Operation

- 1. Remove the front cover and point in the desired flight direction.
- 2. Pull out safety pin.
- 3. Aim over the top of target. Be prepared for recoil.
- 4. Turn grip to left or right to fire.
- 5. If misfire occurs hold unit in firing position for one minute, then dispose of overboard.

## TECHNICAL SPECIFICATIONS

Dimensions	330 x 313 x 205 mm Ø
Weight	4.3 kgs
Explosive content	113 gr
Line breaking strain	>2 kn
Approvals	SOLAS 74/88 as amended, IMO resolutions MSC. 81(70) Part 1, (MED) 96/98/EC, SeeBG MED 424.002, SAS S010012, USCG

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet Line Throwing device	1	SG05907



# Pains Wessex Line Thrower

Pains Wessex Line Thrower 250 meters.



## Features

A self-contained line-throwing appliance consisting of a plastic case with an end cap and 250m of line, an integral striker mechanism plus a rocket. Fired by a twist grip and used for passing a 4 mm diameter line

from ship to ship and ship to shore or for rescuing a swimmer in distress. Ships typically have to carry 4 units to comply with SOLAS regulations. Rocket propels line 250 meter in calm conditions.

## Pains Wessex Line Thrower

Self-contained rocket propelled line throwing appliance

## TECHNICAL SPECIFICATIONS

Dimensions	330 x 313 x 205 mm Ø
Weight	4.2 kgs
Explosive content	113 gr
Line breaking strain	>2 kn
Approvals	SOLAS

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Pains Wessex Line Thrower	1	06130002

# Comet Life Boat Set

Container for the safe and dry storage of various pyrotechnics in marine environment like lifeboats or MOB boats.

### Contents for a lifeboat set

- 6x Comet Hand flare
- 4x Comet Parachute signal

- 2x Comet Smoke Signal
- 1x Container



### Comet life boat set

For safe and dry storage

### TECHNICAL SPECIFICATIONS

#### Container

Dimensions	220 x 410 mm
Material specs	PVC container with screw off lid Rubber seal in lid

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet Life Boat Set	1	SG05906
Extra watertight Comet container: width 218 mm, height 400 mm, diameter 218 mm, 12 liter	1	SG05909

# Comet Bridge Set

Container for the safe and dry storage of pyrotechnics in marine environment like lifeboats or MOB boats.

**Contents for the bridge set**

- 12x Comet Parachute rockets
- 1x Container



**Comet bridge set**

For dry and safe storage

**TECHNICAL SPECIFICATIONS**

<b>Container</b>	
Dimensions	220 x 410 mm
Material specs	PVC container with screw off lid Rubber seal in lid

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Comet Bridge Set	1	SG05905

## Diphoterine sterilize products

Diphoterine deactivates and eliminates the aggressive product. It is a composition of an absorbent material which immediately reacts to the hazardous liquid chemicals, and then drains away. The residues formed in this way are not corrosive, and are naturally removed.



### Diphoterine sterilize products

Deactivates and eliminates the aggressive product

### Features

Diphoterine, a particularly fast and effective absorbing agent is a "chelating amphoteric (sequester) agent". One of the properties of this molecule with multiple opportunities to multiply, is that the aggressive molecules attract both irritant as caustic substances. Water is unable to do so. Diphoterine is available in various models with additional accessories. sustainability of Diphoterine is 1 year.

### LIS Sterilised eye fluid

- 50 ml (excl belt holder)
- anywhere to bring
- readily available, ensuring optimum efficiency
- ergonomic and easy to use
- economic
- optimally efficient: <10 seconds

### MINI DAP: Diphoterine in spray 200 ml

- is used against the use of tools and tool box is kept
- gives a very fine mist

- application: local (hands, face, ...)

### MICRO DAP: Diphoterine aerosol of 100 ml

- Same as MINI DAP, however, in portable leather belt holder

### DAP: Diphoterine portable device with capacity of 5 liters

- suitable for placing in operation or vehicle
- application: for the whole body
- refilling possible
- optional: anti-freeze

### IMPORTANT

When using the Diphoterine products, LIS, MINI MICRO DAP and DAP it is important that you use all the contents. Even if you immediately feel relief, you need to continue treatment (see instructions on the label and follow them!). You should also bear in mind that as "sour" products contain flour, you should use Hexafluorine instead of Diphoterine. Prices of Hexafluorine are (also) on request.

### ORDER INFORMATION

Description	Unit Sales	Articlenr
LIS Sterilised eye fluid, 50 ml (excluding belt holder)	1	SG04663
MICRO DAP: Diphoterine aerosol of 100 ml	1	SG04664
MINI DAP: Diphoterine in spray 200 ml	1	SG04665
DAP: Diphoterine portable device with capacity of 5 liters	1	SG04662
Refill Diphoterine	1	SG04661
Polyethylene safety cabinet, type JBWA-70, green door	1	SG02421

## Dräger Acute 2003

The Acute 2003 is a complete, quick-to-use resuscitation unit which will be of equal interest in emergency services, general practitioners and hospital personnel. The device concept drew on experience from all areas.



### Dräger Acute 2003

Quick to use resuscitation unit

#### Features

Among the outstanding features of the Acute are the 100% by volume oxygen delivery, the simultaneous operation of several components and a "one-third hatch" which offers easy access to the main accessories even in confined spaces.

Even from a distance, the robust, highly condensed polyethylene case is clearly visible thanks to its bright orange colour. Depending on how much space is available at the scene of the emergency the pack can be used either in upright or horizontal position. Both sections of the lid can be opened out of 180°C.

#### Equipment

Inside the Acute no space is wasted, as all the contents are ergonomically arranged. The pack contains everything emergency ventilation requires - the main component is a 2.5 L oxygen cylinder equipped with an Alduk I compact pressure reducer. This features two 5 bar outlets and an inhalation nipple which is adjustable in steps between 0-15 L/min using the flow regulator.

#### Additional components

- Oxidem 3000 demand valve for flow-controlled
- resuscitator 2000 manual ventilation bag, including masks
- subjector 2000 bronchial aspirator
- an inhalation mask
- all connections hoses needed for operation

### TECHNICAL SPECIFICATIONS

Dimensions	600 x 200 x 240 mm
Weight incl contents	Approx. 7 kgs
Pack material	Polyethylene, highly condensed
Clip fasteners	Polyethylene, replaceable
Capacity O2 cylinder	2 liter
Filling pressure O2 cylinder	200 bar
Material O2 cylinder	Steel

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Acute 2003	1	38S1802

# First Aid Kit

First aid kit in plastic container. Container fitted with wall bracket. First aid kit container suitable for mechanical workshops.



## First aid kit

Suitable for shipping

### Features

- orange plastic first aid kit
- made from high quality ABS plastic, so it's sturdy and shockproof
- the kit can be mounted to a wall with the wall bracket
- the two-section kit is fitted with Plexiglas sheets inside to prevent the contents from falling out when opening
- the bag is waterproof

- the rubber seal ensures that resources are protected from dirt and dust
- size 33 cm x 23 cm
- content according to directive and regulation BHV and inland shipping

### Important

The kit should always be within reach. It is important that the contents of the kit regularly (checked) and if necessary replaced.

## TECHNICAL SPECIFICATIONS

Dimensions	330 x 230 mm
Color	Orange

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Toolsan First Aid Kit	1	SG04811
Complete refill, without tweezers and scissors	1	19110024

# First Aid Backpack

Compact handy backpack with first aid content. Equipped with reflective cross and triangle on the front pocket. The content is separated. The first aid backpack can also be used as a shoulder bag and is easy to hang on the wall. The backpack is waterproof and suitable for emergency response and first aid. Content is according to the guidelines of the Orange Cross.



## Contents

- 3 First aid dressing 6 x 8 cm sterile
- 4 First aid packet medium sterile
- 4 Gauze compress sterile 5 x 8,5 cm
- 4 Non-woven compress sterile 10 x 10 cm
- 3 Synthetic wadding 3 m x 10 cm
- 5 Aluminium wound dressing 10 x 10 cm
- 2 Elastic bandage 4 m x 6 cm
- 10 Wound closure strips 3 x 7,6 cm
- 2 Self-Adhesive Fixation Bandage 4 m x 8 cm
- 3 Ideal supportive bandage 5 m x 8 cm
- 2 Triangular bandage non woven
- 1 Roll adhesive plaster
- 1 Assortment plaster bandages
- 1 Plaster bandage elastic 100 x 6 cm
- 1 Life saving kiss resuscitation mask
- 1 Lister bandage scissors 14 cm
- 4 Latex gloves non sterile
- 1 Rescue sheet gold/silver 160 x 210 cm
- 1 Splinter tweezer Feilchenfeld 8,5 cm
- 1 Tick-out tick tweezer
- 1 Disinfection liquid lotion 1%
- 1 First aid advice step by step leaflet

## First Aid backpack

All first aid kit contents

## TECHNICAL SPECIFICATIONS

Dimensions	340 x 100 x 380 mm
Material	Nylon 1680D
Color	Red
Packaging	Per piece in a bag

## ORDER INFORMATION

Description	Unit Sales	Articlenr
First Aid Back Pack	1	19110018

## Zoll AED Plus

A cardiac arrest or cardiac fibrillation is always sudden and, at that moment it is necessary to act immediately. Of course, one of the first things one should do is contact professional help. Zoll AED Plus does not only alert you when a transient is needed, also tells you if the heart massage is deep enough and runs at the right motion.



### Zoll AED Plus

With a good step-by-step resuscitation guidance

#### Features

For the victim however, it is of the highest importance that directly first aid is granted. This first aid exists in the base from CPR and rescue breathing: an AED can increase the survival rate of the victim.

Dräger has consciously chosen for the Zoll's AED Plus.

#### This AED distinguishes itself from other brands

- ignores vibrations and movements of the vessel, making a good analysis
- based on IP55

- makes use of special CPR-D pad; a pressure point mounted to the electrodes, with which the pressure and the pace of the heart massage is controlled
- a good step-by-step-resuscitation guidance with understandable icons and clear voice
- a lifetime of batteries and electrodes of 5 years without maintenance
- the Zoll AED Plus is also the only AED using normal batteries, these are easy to replace and cheap to run the Zoll AED has a standard LCD screen 7 x 3 cm with, optionally, text or ECG-view.
- 

### TECHNICAL SPECIFICATIONS

Particle and watertightness	IP-55
Battery life	5 years
Display	LCD display, 70 x 30 mm
Dimensions	133 x 241 x 292 mm
Weight	3.1 kg
Operating temperature	0°C to +50°C
Storage temperature	-30°C to +60°C
Cable length	1.1 m
Recharge time	Less than 10 seconds when using new batteries
Energy level shock	120J-150J-200J
Warranty	7 years
Approvals	UL2601, AAMI DF-39, IEC 601-2-4, EN 60601-1

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Zoll AED Plus, complete with carrying bag	1	19130027
Zoll AED cabinet, clear	1	19130029



# Fire Blanket

A fire blanket is designed to smother a fire by cutting off its oxygen supply. The fire blanket is placed in a plastic wall container.



## Features

- a fire blanket is a safety device designed to extinguish small starting fires

- it consists of a sheet of fire retardant material which is placed over a fire in order to smother it
- fire blankets are folded in to a quick-release container for ease of storage

## Fire Blanket (normal)

To extinguish small fire

## TECHNICAL SPECIFICATIONS

Material	Composition E glass Yarn: Warp: EC9 68 Ex Yarn: Weft: EC9 68 Ex Finish: 2 side white silicone coating 2 x 35 gm/m <sup>2</sup>
Blanket sizes	1200 x 1200 mm: container size: 285 x 160 x 36 mm 1200 x 1800 mm: container size: 360 x 160 x 36 mm 1800 x 1800 mm: container size: 460 x 160 x 36 mm
Color	Red
Approvals	Kitemark: BS EN 1869 / BS EN ISO 9002

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire blanket, 100 x 100 cm	1	SG00481
Fire blanket, 120 x 120 cm	1	18101002
Fire blanket, 120 x 180 cm	1	SG00483
Fire blanket, 180 x 180 cm	1	SG00484

# Thermal Protection Blanket

Protection of people against rain, wind and cold to prevent hypothermia.



## Thermal Protective Blanket

Protection against rain, wind and cold

### TECHNICAL SPECIFICATIONS

Color	Yellow
Approvals	IMO and SOLAS

### ORDER INFORMATION

Description	Unit Sales	Article Number
TPA-SO: Thermal protective aid	1	SG04921

# Stretcher Spencer Scoop

The Spencer scoop stretcher telescopes to accommodate the tallest patient and folds for compact storage designed so attendants can uncouple either end of the stretcher and gently scoop up the patient using scissors. Tubular aluminum construction with extruded aluminum blades.



**Folding Spencer Scoop Grey**  
Also for tall patients

## Features

Thanks to the scoop action carried out by two longitudinal edges it is possible to position the stretcher below the patient without having to move him/her. The scoop stretcher can be used to lift, transfer or transport the majority of patients.

The silhouette of the scoop stretcher has been studied to improve the insertion below the patient's body and at the same time stabilise when transferring or transporting.

## Material

Special attention has been given to the choice and definition of the material used in construction, which have to respond to certain needs: lightness, mechanical resistance, trustworthiness and durability.

## Available types

- gray Spencer scoop stretcher
- orange Spencer scoop stretcher

## TECHNICAL SPECIFICATIONS

Length minimum	167 cm
Length maximum	201 cm
Width	42,5 cm
Depth folded	9 cm
Weight	10 kgs
Load capacity	170 kgs

## ORDER INFORMATION

Description	Unit Sales	Articlennr
Stretcher Spencer Scoop	1	SG04721
Bracket for Stretcher Spencer Scoop	1	SG04722
Storage bag for Stretcher Spencer Scoop	1	SG04723
Shoulder Strap (2Pcs) for Stretcher Spencer Scoop	1	SG04724

## Stretcher Spencer Shell Basket

This shell is a design for a wide range of rescue situations. The shell is built from high density cross linked polyethylene, this avoids splintering and cracking. The surface is impervious to body fluids and petroleum products. Easy to keep clean. Especially usable rescue operations in mines and in water.



### Spencer Shell basket

Ideal for rescue operations in mines, at altitude and in water

### Applications

The Spencer basket stretcher Shell, has been studied to confront the most difficult of emergency situations. It is ideal for rescue operations in mines, at altitude and in water. Thanks to its robust form, resistance and flexibility of use, it is indispensable anytime that a reliable and safe stretcher is needed.

### Features

A revolutionary technique has been used in its realization which ensures uniform thickness of the entire length of the stretcher. The shell is in high-density polyethylene and is joined to an aluminium framework that aims to consolidate its strength. The handles for transport, which are part of the structure itself, are placed along the entire perimeter. The grommets for the fixing of the spring catches of the harnessing are in stainless steel. Inside the shell there is a removable mattress, applied with hook and loop fastener®, made in closed-cell EPDM, which makes it impermeable to both blood and water. The use of high-density polyethylene for this shell guarantees not only that it is shatterproof but also an exceptional sanitization. The Spencer Shell can contain a spine board.

### Safety Technology

The use of high density polyethylene moulded with this technology, gives a consistency to the thickness that is much higher than that achieved with other forms of moulding; the

advantages are evident in the corners, curves and on the base, exactly where the other bodies prove to be more fragile. The body is resistant to damage and corrosion and has been joined to an aluminium framework to guarantee a demanding use and safe transportability in helicopters. The moulding technology used for this shell offers consistency and uniformity of thickness, the resistance to damage and corrosion much higher than that attained with other forms of moulding, especially in the areas where the other systems are more usually more fragile and delicate (corners, tapering). Thanks to a modification of the structure material the lifetime of the Spencer basket stretcher shell has been doubled from 5 to 10 years.

### Lifting bridle systems

Adjustable lifting bridle used for horizontal and vertical lifting situations. Constructed from durable woven nylon with sound steel attachment hardware and brass locking mechanisms.

### Including

- nylon rope along entire perimeter
- three 50 mm nylon belts with quick-release buckles
- water resistant, closed-cell mattress
- footrest in pre-formed polyethylene with position regulator
- optional hoist strap

### TECHNICAL SPECIFICATIONS

Dimensions	217 x 62 x 18.5 cm
Width	62 cm
Height	18,5 cm
Weight	13,5 kgs
Load capacity	278 kgs

# Stretcher Spencer Shell Basket

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Stretcher Spencer Shell Basket	1	SG04711
Lifting Spin Stretcher Spencer Shell Basket	1	SG04701
Storage bag for Basket Stretcher	1	SG04713

## Ferno KED stretcher

The Ferno K.E.D.® is a versatile, improved means of immobilizing and extricating patients from auto accidents or tight spaces.



**Ferno KED Stretcher**  
Easy application

The wrap-around design provides horizontal flexibility for easy application and vertical rigidity for maximum support of the spine, neck, and head during extrication. The K.E.D.® immobilizes the torso, head and neck, enabling prompt extrication while minimizing risks of further injury. X-rays or advanced life support procedures can be performed with the K.E.D.® in place.

### Features

- wraparound design provides horizontal flexibility for easy application and vertical rigidity for maximum support of the spine, neck, and head during extrication
- built-in handles enable rescuers to get a firm grip on the patient and K.E.D.® as one unit

- adapts to a hip and pelvic splint by simple inversion
- adjustable, fold-back sides permit easy access to patient's chest
- can be used for multiple patient sizes, including children and pregnant women
- color-coded, sewn-in securing straps and snaplock buckles for quick, easy application
- effective in immobilization of pediatric patients
- ideal for immobilizing and extricating patients from auto accidents or confined spaces
- does not interfere with the application of anti-shock trousers

### TECHNICAL SPECIFICATIONS

Dimensions	83 x 80 x 14 cm
Weight	3 kgs
Load capacity	227 kg

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Ferno KED stretcher	1	P912WG096

## Neil Robertson Stretcher

The Neil Robertson Stretcher & Carry Bag is constructed from strong spliced slats and tough cotton. It ensures the patient is secure and stable before and during lifting.



### Neil Robertson Stretcher

A well proven rescue stretcher

#### Features

A well proven rescue stretcher, the Neil Robertson provides comfort and security to the casualty whilst enhancing the rescue effort. Designed for use in instances where the casualty needs to be lowered or lifted to safety, this stretcher is widely used by the Royal Navy, Merchant Navy, Mining, Industry and Emergency Rescue Services.

#### Specially designed features include

- constructed from spliced, laminated slats with a tough rot proof cotton exterior

- strong and supportive head restraints offer stability to the head when vertical lifting is necessary
- features cotton straps with a traditional buckle and regularly spaced eyelets which assist in holding the casualty safely in place
- support ropes manufactured from durable manilla enhance rescuer confidence and offers a high degree of resistance to chafing
- an optional carrying bag is available for convenient storage of the stretcher when not in use

### TECHNICAL SPECIFICATIONS

Dimensions	1500 x 1000 x 40 mm
Dimensions folded	1500 x 310 x 180 mm
Weight	9.8 kgs
Load capacity	136 kg

### ORDER INFORMATION

Description	Unit Sales	Article Number
Neil Robertson Stretcher	1	SG04731

## Paramedics Rescue PAC Stretcher

Advanced rescue stretcher for use in difficult access areas, for example rescue operations in water, in mountains, collapsed buildings and earthquakes. The patient is safely secured in a way that makes it possible to lift the stretcher horizontally or vertically.



**Paramedics Rescue PAC Stretcher**  
For use in difficult areas

### Features

The Paramedics Rescue Pac is made of strong PVC coated fabric with fibre glass reinforced bottom plate stability. Straps of polyester to secure and lift the patient. Aluminium rods along the sides for horizontal lifting. To safely secure the patient, the stretcher is equipped with a sectionalised head guard with adjustable headband, adjustable feet rest with built-in protection and straps for securing arms and legs.

Comes with a bag.

### Use

Lifting: the stretcher can be lifted horizontally, vertically or in "suit case mode". Horizontal lifting is made with attached shoulder straps.

X-ray: the Paramedics Rescue Pac allows x-ray examination without removing the patient.

### Materials

- fabric: PVC coated polyester fabric
- bottom plate: fibre glass reinforced polyester
- rods: aluminium
- straps: polyester

### TECHNICAL SPECIFICATIONS

Lenght minimum	190 cm
Lenght maximum	205 cm
Width	55 cm
Length packed	90 cm
Height packed	20 cm
Weight	16 kgs
Colors	Bright yellow and orange
Approvals	CE-marked according to the European directive for Medical device 93/42/EEC and registered by the Swedisch Medical Products Agency

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Paramedics Rescue PAC	1	SG04732



# Stretcher Blanket

Blanket to cover victims in case of an accident.

Simple blanket to be used on stretcher.



## Stretcher Blanket

To cover victims

### TECHNICAL SPECIFICATIONS

Material	Cotton/polyester fabric
Delivery	Sealed in PE bag
Size	1300 x 2100 mm

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Stretcher Blanket, 210 x 130 cm	1	SG04741

# Basket Stretcher Storage Bag

With the STX 40/10, Spencer offers a professional solution for practical, easy and robust stocking and protection systems for basket stretchers.



**Basket Stretcher Storage Bag**  
Protection systems

## General information

The bags are made out of Spentex® and equipped with useful pockets for various accessories required as supports of rescue activities. A reflecting strip and a logo on the

front will help you identifying the stretcher also in situations with limited visibility. The bags are supplied with comfortable hand grips and some models can be used as a backpack. Reinforced rings for secure wall fixation.

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Storage bag for Basket Stretcher	1	SG04713

# Adjustable wrench

Wrench Swedish made by BAHCO tools B.V., adjustable to 12 thumbs. Combination of pipe grip facility, one side serrated, may be used as a pipe wrench. Left-reading, measurement scale in mm.



## Adjustable wrench

May be used as a pipe wrench

## TECHNICAL SPECIFICATIONS

Material	Phosphated. Precision-hardened and anti-corrosion treated
Dimensions	length: 305mm; thickness:18mm
Maximum opening	34 mm
Weight	665 gr
Color	Black
Approval	DIN 3117

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Adjustable wrench	1	SG03842

# Large Aircraft Axe

Big fire axe for use in combination with the helicopter crash kit.  
Extremely durable and rigid.



**Features**

- large aircraft axe with a protective shield below non-wedging pattern head

- head and sleeve of axe manufactured from steel with wooden handle
- an optional cover is available for the head

**Large Aircraft Axe**

Ideal for offshore helideck rescue equipment

**TECHNICAL SPECIFICATIONS**

Overall length axe	74 cm
Weight	2.6 kgs

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Fireman axe: Aircraft Large, Non-Wedging	1	SG03807

## Bolt cutter

Very robust and strong, made by using a special process with mangan-vanadium steel which contains high carbon levels. Induction hardened out of Rockwell HRC 55-60. Knives are parallel adjustable. Gummy hand grips.



### Bolt cutter

Very robust and strong

### TECHNICAL SPECIFICATIONS

Material	Mangan-vanadium steel
Dimensions	450 x 1050 mm
Weight	1700 - 8600 gr
Color	Red
Approval	DIN

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Bolt cutter	1	SG03856

# Crow bar

Crow bar made of hardened steel, very robust.



**Crow bar**  
Very robust

## TECHNICAL SPECIFICATIONS

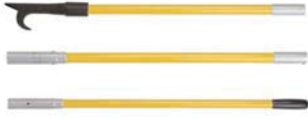
Material	Steel
Size	90 cm
Color	Black

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Crow bar	1	SG03849

# Grab hook

Long grab hook which makes it suitable for most rescue situations. Can be stored in two pieces which means it does not take in a lot of space when not in use.



## Grab hook

Ideal for offshore helideck rescue equipment

## TECHNICAL SPECIFICATIONS

Material	Wooden shaft; brass connection and steel tip
Length	415 cm

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Grab hook	1	SG04907

## BAHCO hack saw

Durable hacksaw supplied with 3 spare blades. An easy-to-handle compass saw. The interchangeable blade can be positioned at eight different angles by turning the screw in the handle. The 321 is supplied with a SANDFLEX® Bi-metal blade, 24 TPI.



### BAHCO hack saw

Easy-to-handle

### TECHNICAL SPECIFICATIONS

Material	Metal
Color	Orange
Weight	330 gr
Approval	DIN

### ORDER INFORMATION

Description	Unit Sales	Articlenr
BAHCO hack saw	1	SG03857



# Fire Blanket

A fire blanket is designed to smother a fire by cutting off its oxygen supply. The fire blanket is placed in a plastic wall container.



## Features

- a fire blanket is a safety device designed to extinguish small starting fires

- it consists of a sheet of fire retardant material which is placed over a fire in order to smother it
- fire blankets are folded in to a quick-release container for ease of storage

**Fire Blanket (normal)**  
To extinguish small fire

## TECHNICAL SPECIFICATIONS

Material	Composition E glass Yarn: Warp: EC9 68 Ex Yarn: Werft: EC9 68 Ex Finish: 2 side white silicone coating 2 x 35 gm/m <sup>2</sup>
Blanket sizes	1200 x 1200 mm: container size: 210 x 165 x 40 mm 1200 x 1800 mm: container size: 280 x 165 x 40 mm 1800 x 1800 mm: container size: 460 x 165 x 40 mm
Color	Container: Red Blanket: White
Approvals	Kitemark: BS EN 1869 / BS EN ISO 9002

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire blanket, 120 x 180 cm	1	SG00483

# Ladder

This ladder can be used as a lean-to or stepladder, as a workbench or as a lean-to ladder with support. When folded, it can be stowed in almost any vehicle. It is adjusted by six automatic steel hinges. The ladder steps are equipped with rubber shoes. The ladder is GS-tested and complies with EN 131.



## Ladder

To be used as lean-to or stepladder

## TECHNICAL SPECIFICATIONS

Steps	4x3
Length	350 cm
Working height	430 cm
Stepladder height	170 cm
Workbench height	94 cm
Packing dimensions	855 x 970 x 260 mm
Carrying weight	150 kg
Weight	12.5 kg

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire blanket, 100 x 100 cm	1	SG03854

# Fire Proof Lifeline

Lifelines for firefighters outfit are intended of being attached by means of a snap-hook to the harness of a firefighter. Especially suited for marine fire fighters, MED approved.



**Features**

The lifeline has a carabiner hook with a screw cap hook on one side. For the end connection the polyester cover is removed at the end of

the wire rope. The end connection is with a thimble end the wire rope is pressed with a ferrule. A shrink hose is covering the ferrule.

**Fire proof life line**  
MED approved

**TECHNICAL SPECIFICATIONS**

Material	- Galvanized steel wire rope 6X19+PP core 5 mm according to specification 619N5 in tensile strength of 1770 N/mm2 - woven cover sheet of Polyester yarns made out of Trevira CS of thickness approximately 1,5 mm - Carabiner hook in acc. to DIN 5299 Form C 100 x 10 mm WLL 350 kg
Length line	30 meters
Approvals	MED

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Fire Proof Life Line with hook, 30 meter, MED approved	1	SG03823

## BAHCO pliers

Side cutting plier with progressive edges designed to cut hard material such as piano wire close to the joint and to cut softer material as copper wire and plastic insulated wire at the tip.



### BAHCO pliers

Designed to cut hard materials

### TECHNICAL SPECIFICATIONS

Material	Chrome-Vanadium steel. PVC coated handles without return spring
Finish	Black oxidised, anti-corrosion treated
Color	Red/black

### ORDER INFORMATION

Description	Unit Sales	Articlenr
BAHCO pliers	1	SG03858

## Screwdriver set

Set of screw drivers for all kinds of maintenance or rescue operations, specially fitted with ergonomic handles for supreme grip and comfort.



### Screwdriver set

Supreme grip and comfort

### TECHNICAL SPECIFICATIONS

Material	Rubber grip, steel shaft with hardened tip
Finish	Anti-corrosion treated
Color	Red/black
Approvals	DIN

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Screwdriver set	1	SG03859

## Rescue knife

Patented rescue knife from the USA for fire brigade, police and rescue services. Extremely sturdy metal structure.

Two replaceable blades are securely anchored in the "V". The rounded edges prevent injuries to the rescue victim. The heavy head can even smash thick panes of glass. The shape of the handle prevents the device from falling out of your hand.

The special DZUS connection makes it possible to open aircraft and vehicle doors.



### Rescue knife

For fast rescue

### TECHNICAL SPECIFICATIONS

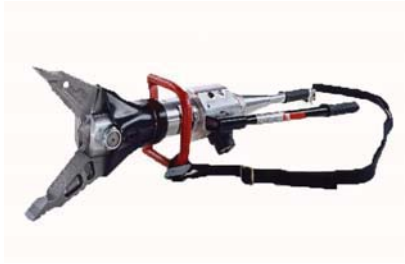
Weight	460 gr
Length	240 mm

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Rescue knife	1	SG03802

## Power Cutting Tool Lukas

Combination tool with integrated hand pump cuts and spreads. Highly portable for rescue operations in areas difficult to access. Rotatable tool head can be adjusted in any desired angle for 360 degrees.



### Power Cutting tool Lukas

Combination tool with integrated hand pump cuts and spreads

#### Applications

- rescue operations
- disaster management
- rescue operations on top of ladder or in wilderness areas
- moving and lifting of obstacles
- opening doors and deforming metal structures
- cutting of metal constructions, vehicle parts, pipes, sheet metal etc

#### Features

- no external power source is required
- lightweight and highly portable
- cutting and spreading with one tool
- easy to operate, automatic change over from low pressure to high pressure
- for use in areas with explosive risks
- intrinsically safe

### TECHNICAL SPECIFICATIONS

Cutting force up to	45,800 lbs / 204 kN
Round steel up to dia	22 mm
Blade opening	182 mm
Spreading force up to	136 kN
Spreading distance	259 mm
Dimensions	833 x 170 x 150 mm
Weight	10.9 kgs

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Power Cutting tool Lukas LKS 31	1	SG03811

## GRP storage cabinet: DMO-55

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Helideck crash equipment (excl. ladder/ rescue hook)
- Fall protection equipment / descent units (donut type)

### Options

- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-55

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	1024 x 500 x 600 mm (LxWxH)
Aperture dimensions	910 x 359 x 560 mm (LxWxH)
Angle of door opening	90°
Weight	20 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-55 Hinged Lid	1	SG02110
Add. Costs DMO-55: Fire retardant	1	SG02111



## Dräger Firemans Gloves

Best quality leather for the best protection.



### Dräger fireman's gloves

Great protection for hands

#### General

These gloves are completely sewn with Kevlar. Between all seams, a leather tubing, which protects the Kevlar, can be seen. This extends the lifespan of the glove. The palm features an extra strong leather inside.

A piece of leather is sewn on the cuff as an additional radial artery protection. The glove is equipped with elastic so the glove will fit perfectly.

The Porelle breathable membrane ensures the user a breathability and protects the user against water and chemicals.

The knitted Kevlar lining provides high wearing comfort. The Kevlar elastic cuff fits well around the wrist and provides great protection for the user.

#### Features

- Material: Cowskin and fire resistant grain leather
- Membrane: Porelle breathable liner
- Liner: Knitted Kevlar (para Aramide fibre)
- Cuff: Knitted Kevlar with Spandex for elastic facility
- Stitching: Kevlar yarn
- Standard sizes: 7/S – 8/M – 9/L-10/XL-11/2XL

#### Porelle liner

- Keeps you dry and comfortable
- Innovative functional technology
- High moisture diffusion and drying ability
- Fire retardant and high capacity breathability
- Keeps your body temperature in balance

### TECHNICAL SPECIFICATIONS

Color	Yellow
Fabric	Leather palm and backhand Knitted wrist Kevlar inner lining
Approvals	EN 659, EN 420, EN 388, EN 407 and MED approved

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Firemans Gloves, size S, MED approval	1	SG03741
Dräger Firemans Gloves, size M, MED approval	1	SG03742
Dräger Firemans Gloves, size L, MED approval	1	SG03743
Dräger Firemans Gloves, size XL, MED approval	1	SG03744
Dräger Firemans Gloves, size XXL, MED approval	1	SG03745

# Dräger Nomex Fireman's Suit

Dräger would like to present its new line of firefighting clothes designed to the highest standards with one thing in mind: the firefighter. The new suit is the result of a close study of technical key features and usability of suits that are currently available in the market: the suit has been improved on eight key features as compared to the most readily available suits. Providing a safe barrier "between human will and fire's forces".



## Dräger Nomex Fireman's Suit

A lightweight, durable and highly comfortable suit

### Radiation heat barrier

A Kermel fleece that provides excellent thermal protection, these very thin layers found inside the layer concept, minimise the amount of water that can replace the critical insulation air space in the garment.

### Membrane

A Hi-Tech polyurethane membrane coated on the outer radiation heat barrier. Ensures exceptional breathable characteristics and unmatched durability. Up to a temperature of 380°C, this membrane gives a good protection against heat and chemicals and will not melt.

### Liner

A combination of Nomex and Viscose. The Nomex thread of this special weave method with the 2,5% Kevlar makes the liner strong. The fire retardant Viscose thread provides comfort and transports moisture to the outside of the liner. The multi-layer configuration ensures that each layer accomplishes its part of the job.

### Air layers and thermal barriers

The protective value of the "ESS® 5 layer system" in combination with the fabric composite is found in the air between the fire fighter and the heat source. Air itself is the greatest single source of insulation qualities in protective clothing. Sandwiching stitching inside the facing cloth is therefore never used. All the layers are not stitched to each other; this improves the thermal insulation value (TPP) by protecting the moisture barrier and creating multiple air spaces between the very thin layers.

### Comfort

The used layer system creates a lightweight, durable and highly comfortable garment without compromises to the suits protective features.

### Quick Release Breakaway Zippers

Specially designed for military, firefighter and chemical suits. Ideal for situations where it's desirable to tear the zipper open without having to move the zipper all the way back.

### Anti Aqua

High-Tech coated polyester fabric in sleeves, trouser legs, storm flap, back piece and pocket flaps. Prevents water and chemicals to easily enter the lining of the suit.

### Eyelets

To quickly drain fluids from the suits pockets.

### External padding

The suit features external protective pads on the knees and the elbows. Most other suits have their padding installed on the inside of the pants and do not use padding for elbows. Using padding for both elbows and knees increases user comfort. In addition using padding on the outside helps to protect the suit from damages on its most fragile parts.

### Rounded pocket flaps

By using rounded pocket flaps the chances of being caught behind protruding parts when in action are reduced. In addition the rounding of the corners reduces wear and tear on the fabric in everyday use.

## TECHNICAL SPECIFICATIONS

Type of material	NOMEX® III, 220 g/m <sup>2</sup>
Inner material	Jacket and trouser: NOMEX, 93% Meta-Aramid, 5% Para-Aramid, 2% Static Control Stitching: NOMEX Liner: NOMEX fleece (heat barrier), NOMEX fleece with Hi-Tech PU breathable membrane, NOMEX viscose FR lining

## Dräger Nomex Fireman's Suit

Pockets	Jacket: Two side pockets with flaps, one inside pocket and one radio pocket on each chest Trousers: 2 box pockets on thighs. Inverse pocket in both sides
Color	Orange with reflective striping
Sizes	S - XXL
Approvals	EN469:2005, MED

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Nomex Fireman's Suit, size S	1	SG03701
Dräger Nomex Fireman's Suit, size M	1	SG03702
Dräger Nomex Fireman's Suit, size L	1	SG03703
Dräger Nomex Fireman's Suit, size XL	1	SG03704
Dräger Nomex Fireman's Suit, size XXL	1	23110074

## Fireman's SA Boots

Boots for emergency situation and fire with toxic chemicals emission.



### Features

- safety toe cap
- anti-perforation mid-sole
- resistance to heat flow, heat contact, fire
- resistance to chemicals: fuels, oils, weak and diluted acids, solvents
- resistance to abrasion and cuts
- used with chemical protective suits (satisfy permeation tests according to EN 943-2)

### Fireman's SA Boots

Meets the heat and flame resistance requirements

### TECHNICAL SPECIFICATIONS

Color	Black
Sizes	36-50
Type of construction	Elastomer: fireproofed NBR (fireproofed nitrile rubber)
Steel midsole	Composite anti-perforation mid-sole
Toe	Polymer toe cap (steel toe for sizes 36, 37, 38)
Weight	1900g / pair (size 42)
Height	370mm (size 42)
Approvals	EN 943-2 EN 15090 type 3 HI3 EN ISO 20345 S5 HRO SRC EN 13832-3 J P Q EN 13287 Marine fire protection equipment certified by SEE-BG, notified body N°0736 MED approved

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Fireman's Boots, size 36	1	SG03746
Fireman's Boots, size 37/38	1	SG03747
Fireman's Boots, size 39	1	SG03749
Fireman's Boots, size 40/41	1	SG03751
Fireman's Boots, size 42	1	SG03752
Fireman's Boots, size 43	1	SG03753
Fireman's Boots, size 44	1	SG03754
Fireman's Boots, size 45	1	SG03755
Fireman's Boots, size 46/47	1	SG03756
Fireman's Boots, size 48	1	23112026

## Dräger HPS 7000 Fireman's Helmet

The Dräger HPS 7000 firefighter's helmet is in a class of its own thanks to its innovative, sporty and dynamic design, ergonomic fit and components which make it a multi-functional system solution. It provides you optimum protection during every operation.



**Dräger HPS 7000 fireman's helmet**  
Tailor-made fit for every head

### Tailor-made fit for every head

Two helmet shells for head sizes from 50 to 66 cm cover a wide range of individual head and face shapes. With a weight of approx. 1,380 g as basic version, it is one of the lightest helmets in its class. In addition to its comfortable interior fitting made of skin-friendly, anti-allergic and flexible materials, the Dräger HPS 7000 stands out with its high level of operating and wearing comfort.

### Comfort is a matter of position

The padded 4-point harness allows for safe and easy adjustment to any head shape. The optimum balance of the helmet can be adjusted individually in the neck and chin area. The padding made of Nomex also ensures a comfortable fit. The integrated comfort hairnet enables the height to be adjusted and assures a good climate inside the helmet. During operation, the head size can be adjusted quickly via an easy-to-operate size adjustment wheel with safety mechanism on the outer shell, even with wet and thick gloves.

### Design at its strongest

The ergonomic helmet design evenly distributes the weight to the head and relieves the neck muscles. The large and modern facial protection visor offers unrestricted protection with best visibility. For operations under chemical protective suits, the visor can be fixed permanently. A safe alternative is provided by the integrated and individually adjustable protective goggles with integrated softpad edge protection. Both visors leave enough space for the simultaneous use of corrective glasses or respiratory masks.

### Innovative system design

As a provider of integrated system solutions, Dräger sets new standards for the interaction of its products. The universally and individually adjustable mask connection system of the Dräger HPS 7000 creates a strong and safe helmet-mask combination. The full-face mask FPS 7000, the integrated mask communication unit FPS 7000 COM-PLUS and the SCBA of the PSS series allow you to optimally configure the overall system. The light-weight LED helmet lamp is integrated

into the helmet shell and illuminates the whole working area. It is located in the centre of the front plate and has an effective glare 2012shield as well as intelligent battery management system. The interior fitting can be equipped with various audio/speech headsets for different radios. This ensures reliable communication even in loud environments.

### Highest safety - the material mix makes the difference

Despite its low weight, the Dräger HPS 7000 is one of the safest full-shell helmets in its class. Its outer shell of composite material in combination with the PUR inner shell provides reliable protection against thermal and mechanical influences. The plastic reinforced with glass fibre and aramide webbing resists extreme temperatures. It is even able to withstand the enormous radiation heat and flame engulfment of a flash over. The visors of high temperature resistant polyether sulphone reliably protect your eyes and face against high heat, particles and liquid chemicals.

### Nothing left to be desired

A comprehensive accessory program completes the Dräger package. Reflective strips improve your visibility under unfavourable conditions and allow for individual marking, matched to your clothing, the various neck protection versions reliably keep your back free. Separate helmet lamps are attached with a lamp adapter on the right or left helmet side. A Nomex coating protects your helmet in any training situation and extends its service life. Helmet bags and cases provide safe storage and transport.

### Ready again in no time at all

The Dräger HPS 7000 is easy and efficient to service due to the minimum number of components. The entire interior fitting can be removed and re-installed in just a few steps. You can replace individual components easily and quickly, using standard tools. All helmet components are cleaned and disinfected manually or in industrial washing machine.

# Dräger HPS 7000 Fireman's Helmet

## TECHNICAL SPECIFICATIONS

Size	H1: for head size 52 to 60 and optional for 50/51 (when using a separate padding strip), H2: for head size 56 to 64/66, continuously adjustable via adjustment wheel (available 2014)
Weight	Approx. 1,380 g (±5%)
Color	Luminescent, pure white, red, signal blue, zinc yellow, black, bright yellow, other colors on request
Mask connection (only PRO version)	Option to attach any adapter mask, e.g. Dräger FPS 7000, 4 positions adjustable
Interior fitting	Flame-resistant and washable 4-point harness made of Nomex, sweat band of eco leather, head support ring with wheel adjustment system (patent pending), integrated comfort hairnet, fixing lever for facial protection visor and communication adapter
Material, outer shell	composite consisting of glass fibre reinforced plastic (PA-GF) and additionally reinforced with aramide webbing, high temperature resistant
Facial protection visor	2.5 mm polyether sulphone, anti-scratch coated (optional), approved acc. to EN 14458:2004 (±40 °C, T, N, K, AT, R, E3) clear or gold-coated version
Protective goggles (only for PRO version)	2.5 mm polyether sulphone with softpad edge protection, anti-scratch coated (optional), approved acc. to EN 14458:2004 (±40 °C, T, N, K, AT, R, E3), clear or tinted version, 2 positions adjustable
Approvals	EN 443:2008 (type B 3b, C, E2, E3, -40 °C), mask-helmet combination acc. to DIN 58610

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger HPS 7000, luminescent	1	R79170
Dräger HPS 7000, white	1	R79171
Dräger HPS 7000, PRO luminescent/matt black	1	R79250
Dräger HPS 7000, PRO white/matt black	1	R79251
Dräger HPS 7000 - neck protection Nomex / Aluminium	1	R79145
Dräger HPS 7000 - neck protection Nomex / short	1	R79146
Dräger HPS 7000 - neck protection Nomex, neck curtain, three-layer	1	R79147
Dräger HPS 7000 - helmet lamp, LED, integrated	1	R79013
For Dräger HPS 7000 and HPS 7000 PRO, to attach the integrated LED helmet lamp, order separately: E-kit front plate for Dräger HPS 7000 helmet lamp	1	R79226
Lamp holder Dräger HPS 7000 (for helmet lamps Dräger PX1)	1	R79129
Helmet lamp Dräger PX 1 LED	1	R62350
Helmet lamp Dräger PX 1 XENON	1	R57816

# Dräger X-plore® 1300

The Dräger X-plore® 1300 combines proven and reliable respiratory protection with intelligent new ideas ensuring a high level of comfort and ease of use.



**Dräger X-plore® 1300**  
Respiratory protection

### Efficient particle protection

Dräger X-plore 1300 is the new generation of pre-formed particle filtering face pieces for effective protection against fine dust as well as solid and liquid particles. For use in applications where exposure to dust is unavoidable the X-plore 1300 is available in all three EN protection classes FFP1, FFP2 and FFP3. Odour stopping versions equipped with an activated carbon layer are ideal for users that battle with unpleasant nuisance odours.

### CoolSAFE™ filter material

The specially developed CoolSAFE™ filter material combines various high-performance filter media to achieve an excellent filter performance. Coarse and fine particles are effectively stopped in the various filter layers. At the same time, the breathing resistance remains very low, allowing the user to work easily and without tiring for longer periods. In addition, the face pieces were subjected to the increased requirements of the (optional) dolomite dust test. Their resistance to clogging under high exposure to dust was successfully tested. During activities with high exposure to dust (e.g. mining), this gives the face pieces a longer service life and reduces costs for the user, while maintaining a high degree of wearing comfort.

### VarioFLEX™ head harness with EasyStop

Easy to don/doff and adjust with a pressure-free fit. The continuous-looped tear-proof textile strap eliminates the need for clips – preventing uncomfortable pressure and allergic reactions. EasyStop allows the wearer to individually adjust the harness as required, while ensuring ease of use and a secure, comfortable seal. Experience ultimate comfort with the extra-wide slip-proof harness of the Dräger X-plore 1300.

### CoolMAX™ exhalation valve (optional)

Small details, big effect: Breathe easy and comfortably, thanks to the extremely low breathing resistance. The valve directs humid and warm exhaled air away from the user and out of the mask – preventing heat build-up and keeping them cool.

### A secure seal

Alongside the filter performance, a secure seal, without leakage, is decisive in how effective the masks' protection really is. The X-plore 1300 is the ideal combination of an ergonomic mask body combined with an integrated nose seal and nose clip. This gives the wearer a tailor-made fit and a secure seal. Additionally, the good seal keeps safety glasses from fogging.

### Colour coding for fast recognition of the protection class

Fast recognition without confusion: the colour coded nose clip and valve classify the three EN protection levels dark-blue (FFP1), light-blue (FFP2) and white (FFP3). Providing easy recognition when selecting the right mask.

### Special features of X-plore 1300

- Practical and comfortable: The VarioFLEX™ head harness with a four-point adjustment and extra-wide textile straps ensures the best possible fit.
- Quick and easy to use: The straps are arranged for fast donning. An integrated safeguard prevents straps from slipping out of place.
- Secure and comfortable: Integrated, all-around comfort sealing.
- Clean and hygienic: Each face piece is individually packaged in its own plastic bag.
- Individually adjustable: Available in two different sizes S/M and M/L – the right size for different face shapes.

## TECHNICAL SPECIFICATIONS

Filter material	CoolSAFE™ for protection against solid and liquid non-volatile particles
Odour versions	With additional activated carbon layer against nuisance organic odours below the limit value
Marking D	Successfully passed the dolomite dust test against clogging

# Dräger X-plore® 1300

Marking NR	The mask can only be used for a maximum of one work shift
Approvals	All versions meet the conditions of the EU guideline 89/686/EEC and are permitted as particle filtering half masks in accordance to the increased requirements of the revision of EN 149:2001+A1:2009 (test of filter performance for aerosol exposure with 120 mg paraffin oil). Australian Standard AS/NZS 1716:2003 certified (SAI Global)

## ORDER INFORMATION

Description	Unit Sales	Article Number
Dräger X-plore 1310 FFP1 NR D	1	3951211



# Fire fighter hood

Nomex hood for fire fighters.



## Features

Elastic inside at face opening.

## Nomex hood

For firefighters

## TECHNICAL SPECIFICATIONS

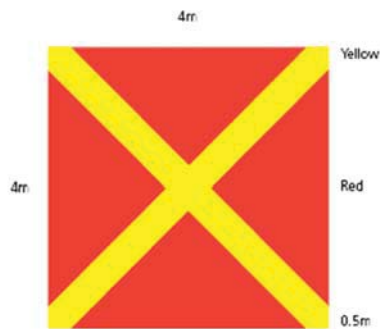
Color	Grey
Size	One size
Material	Nomex/Viscose knit, 50/50, 235 g/m <sup>2</sup>
Approvals	EN 13911

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Flash hood: Nomex III	1	SG03881

# Helideck Closed Marker

Marker for the helideck in offshore quality.



## Helideck Closed Marker

Marker 4 x 4 mtr

### TECHNICAL SPECIFICATIONS

Material	PVC 630g/m <sup>2</sup>
Dimensions	4x4 m , stripe width: 0.5m
Fixation	Every 0,5m a brass fixation eye

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Helideck Closed Marker, 4 x 4 mtr	1	SG04902

# Helideck Wheel Block

Wheel block for use on the helideck.



Wheel blocks for helicopter

## TECHNICAL SPECIFICATIONS

Material	Rubber
Dimensions	Appr.: 230 x 210 x 160 mm (HxDxW)
Weight	4.8 kgs
Other	Galvanized chains for fixation

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Wheel block for helicopter, including chain	1	SG04901

## Helideck Ty down Straps

Straps for the securing of a helicopter on the helicopter-deck.



Ty down strap for helicopter

### Features

- LOAD-LOK® 50 mm high strength polyester webbing lashing systems for heavy general loads

- easy – quick – secure lashing for flats, tilts, containers, rail wagons
- suitable for road/rail/ sea/air
- can be supplied with various end fittings suitable for the majority of lashing points and produced at a length 'made to measure'

### TECHNICAL SPECIFICATIONS

Material	Polyester
Webbing width	50 mm
Lashing capacity	2.000 kgs
Breaking strength	5.000 kgs
Approval	EN 12195-2

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Helideck Ty down Straps	1	SG03860

# Helideck Landing Officer vest

Helideck Landing Officer Nomex III Vest.

## Features

- conform to EN-471

- two hook and loop fasteners

- with HLO reflections



## Landing officer vest

Nomex III

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Helideck Landing Officer Vest, size XL, HLO text on chest and back	1	SG03867
Helideck Landing Officer Vest, size XXL, HLO text on chest and back	1	SG03868
HDA Vest Nomex, size XL, HDA text on chest and back	1	SG03871
Helideck Landing Officer Jacket, Nomex, orange with striping, size L	1	SG03862
Helideck Landing Officer Jacket, Nomex, orange with striping, size XL	1	SG03863

## Dräger Pac<sup>®</sup> 3500



**Dräger PAC 3500**  
Handy, reliable with large display

Accurate and easy to use, the Dräger Pac 3500 is ideal for industrial personal monitoring applications. Providing quick detection of carbon monoxide, hydrogen sulfide or oxygen, this robust single gas detector has a lifetime of 2 years and is made specifically to fit industrial safety requirements.

### Small and robust housing

Dräger Pac 3500's impact-resistant housing features a protective rubber coating and is impervious to corrosive chemicals. Dräger Pac 3500 meets the requirements of IP 65 to ensure operation even when projected with water. A crocodile clip securely fastens the instrument to the user's clothing and can be adjusted to allow for individual preferences.

### Safety first

To ensure continuous operation even when the gas inlet is accidentally covered, the instrument's sensor has been carefully positioned to allow gas intake from both the top and the front of the device.

### Miniature sensor technology

Incorporating the latest miniature Dräger XXS sensor technology, the Dräger Pac 3500 has been specifically developed for use in personal monitoring and handheld applications. The robust and pressure compensated sensors reliably detect CO, H<sub>2</sub>S and O<sub>2</sub> and because of the very low sensitivity drift, the Dräger Pac 3500 can be used over a 2 year period without calibration.

### Clear display

Easily seen at a glance, the large display shows both the gas concentration and the measurement unit. Alternatively, the instrument can be configured to show only the gas detected. The concentration is then only displayed when the set alarm level has been exceeded.

Language-free to avoid any misunderstanding, this continuous numeric display can also be back-lit to improve readability in darker conditions. Colored labels are also available to distinguish the instrument at a distance.

### Alarms and warnings

In addition to a vibrating alarm, the Dräger Pac 3500 emits an audible, multi-tone signal and a clear, 360° visual alarm via bright, flashing LEDs at the top and base of the instrument. The alarm threshold levels can be individually adjusted to adhere to company

policy or standardized with the use of Dräger software.

### Event logger

Complete with an infrared interface and able to store up to 60 events with dates and times, the Dräger Pac 3500 can be easily linked to a PC via a connecting cradle. This means that significant events such as switching on or off, gas and battery alarms, error codes, configuration changes, fresh air calibrations and bump tests can be downloaded, printed and stored centrally for future reference or reporting purposes.

### Quick and reliable bump testing

Bump or function tests are necessary to check if the instruments are functioning correctly. Most national regulations require users to test equipment against a known gas concentration on a regular basis. Featuring adjustable bump test and calibration intervals, the Dräger Pac 3500 alerts the user when bump tests or calibration are required. If this warning is ignored or a test is unsuccessful, the instrument automatically displays an "out of order" error message.

Performed together with the Dräger Bump Test Station, a typical bump test takes between 8 and 15 seconds and requires no additional power so that the test can be performed on site. Each test result is automatically stored in the event logger and, should hard copies be required, an optional mobile printer can be used.

If necessary, a fresh air calibration can be carried out during the start-up sequence. All other calibration options are only accessible via a password-protected menu.

# Dräger Pac<sup>®</sup> 3500

## TECHNICAL SPECIFICATIONS

Dimensions	84 x 64 x 25 mm
Weight	120 gr
Temperature	-30 °C to +50 °C
Pressure	700 to 1300 hPa
Humidity	10 to 90 % r. h.
Ingress protection	IP 65
Display	Language-free LCD display, continuous indication of concentration, remaining life and/or operating time, notice and alarm functions
Instrument life and guaranty	2 years
Battery life (typical at 25° C, 8 hours of use per day, 1 minute alarm per day)	CO, H <sub>2</sub> S > 2 years O <sub>2</sub> > 12 months
Alarms	Visual (360° flashing LEDs at top and bottom), audible (multi-tone >90 dB at 30cm;1ft), vibrating
Event logger	Storage of up to 60 events including concentration levels, date and time
Approvals	CE-Sign (89/336/EEC, 94/9/EC) ATEX I/II M 1/1 G EEx ia I/II C T4 UL: Class I, II Div 1, Group A, B, C, D, E, F, G, Temp. Code T4 cUL: Class I, II Div 1, Group A, B, C, D, E, F, G, Temp. Code T4 IECEX Ex ia II C T4 GOST 51330.0-99 ( 60079-0-98); 51330.10-99 ( 60079-11-99); Exial / 0ExialICT4

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAC 3500 CO	1	8322001
Dräger PAC 3500 O <sub>2</sub>	1	8322005
Dräger PAC 3500 H <sub>2</sub> S LC	1	8322003
Dräger PAC 3500 leather carrying case	1	4543822
Dräger PAC 3500 calibration adapter	1	8318588
Dräger Bump Test Station for Dräger PAC 3500, not including gas cylinder	1	8317410
Dräger Bump Test Station for Dräger PAC 3500, complete with one test gas cylinder 58L (gas and concentration variable), excluding PAC 3500	1	8318586
Connecting Cradle, complete with USB cable and Dräger PAC Vision software	1	8318587
E-Cal instrument module for connection of 4 Dräger PAC 1000 to 7000 to a Dräger E-Cal Master Station or to Module Adapter	1	8318589
Dräger PAC 3500 lithium battery: 3V CR 123A	1	4543808
Dräger PAC 3500 water and dust filter	1	8323615

## Dräger Pac<sup>®</sup> 5500

Longer assignments are its speciality: the single gas instrument, Dräger Pac<sup>®</sup> 5500, has no lifetime limitation, and is ideal for fast and accurate personal monitoring and the detection of carbon monoxide, hydrogen sulphide or oxygen.



**Dräger PAC 5500**  
Handy, reliable with large display

### Tailor-made for tough industrial assignments

Dräger has specifically designed the Pac<sup>®</sup> 5500 to meet tough industrial requirements. The shock-proof rubber casing offers reliable protection against external, mechanical influences and corrosive chemicals. The device meets the requirements of IP68.

### Large, language-free display

The large LCD display is particularly user friendly, and shows both the gas concentration and unit of measurement. It is also possible to activate the device's status display. In this case, the display only shows the concentration when the configured alarm threshold has been exceeded. Additional background lighting ensures that the display is always readable.

### Reliable sensor technology featuring low operating costs

The Dräger Pac 5500 is equipped with the Dräger XXS sensor technology. These innovative sensors offer an extremely high performance, with fast reaction times of only ten seconds. The XXS sensors offer a long functional life of in excess of four years, including the Oxygen sensor, thus providing lower operating costs.

### Event logger for 60 events

The Dräger Pac 5500 can store up to 60 events, along with their dates and times. Events such as activation and deactivation, gas and battery alarms, error modes, configuration adjustments, etc. can be loaded onto a PC via the infrared interface, and then can be analysed in detail.

### Fast function test

Regular function tests are prescribed to ensure that the device always works flawlessly. Using the cost-efficient Dräger Bump Test Station, these tests can be performed within a matter of seconds.

### Safety in any situation

Within the device, the sensor has been specially positioned to allow gas access at both the top and the front of the device. Even when the unit is placed in a pocket, or the gas entry has been accidentally covered, it is still possible to take a reliable reading.

### Simple differentiation of the devices

The Pac 5500 is equipped as standard with a silver foil covering the keyboard. Foils in different colours help the users to distinguish the devices and therefore the measured gases easily and especially from a distance. You can choose the coloured foils directly with your order.

## TECHNICAL SPECIFICATIONS

Dimensions	84 x 64 x 25 mm
Weight	120 gr
Temperature	-30 °C to +50 °C
Pressure	700 to 1300 hPa
Humidity	10 to 90 % r. h.
Ingress protection	IP 65
Display	Language-free LCD display, continuous indication of concentration, notice and alarm functions
Instrument life	No lifetime limitation
Battery life (typical at 25°C, 8 hours per day, 1 minute alarm per day)	CO, H <sub>2</sub> S > 2 years O <sub>2</sub> > 12 month
Alarm	Visual (360° flashing LEDs at top and bottom), audible (multi-tone >90 dB at 30cm;1ft), vibrating



# Dräger Pac® 5500

## Approvals

CE-Sign (89/336/EEC, 94/9/EC)  
 ATEX I/II M 1/1 G EEx ia I/II C T4  
 UL Class I, II Div 1, Group A, B, C, D, E, F, G, Temp. Code T4  
 cUL Class I, II Div 1, Group A, B, C, D, E, F, G, Temp. Code T4  
 IECEx Ex ia II C T4  
 GOST 51330.0-99 ( 60079-0-98); 51330.10-99 ( 60079-11-99); Exial / 0ExialICT4

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAC 5500 CO	1	8322009
Dräger PAC 5500 O2	1	8322013
Dräger PAC 5500 H2S	1	8322011
Dräger Pac 5500 leather carrying case	1	4543822
Dräger Pac 5500 calibration adapter	1	8318588
Dräger Bump Test Station for Dräger Pac 5500, not including gas cylinder	1	8317410
Dräger Bump Test Station for Dräger Pac 5500, complete with one test gas cylinder 58L (gas and concentration variable)	1	8318586
Connecting Cradle, complete with USB cable and Dräger Pac Vision software	1	8318587
E-Cal instrument module for connection of 4 Dräger Pac 1000 to 7000 to a Dräger E-Cal Master Station or to Module Adapter	1	8318589
Dräger Pac 5500 lithium battery; 3V CR 123A	1	4543808
Dräger Pac 5500 water and dust filter	1	8323615

## Dräger Pac<sup>®</sup> 6000



### Dräger Pac 6000

Robust design, quick sensor response time

The disposable personal single-gas detection device, Dräger Pac<sup>®</sup> 6000, measures CO, H<sub>2</sub>S, SO<sub>2</sub> or O<sub>2</sub> reliably and precisely, even in the toughest conditions. The robust design, quick sensor response times, and a powerful battery ensure maximum safety for up to two years with virtually no maintenance required.

#### Strong performance for maximum safety

You can rely on the Dräger Pac 6000: The personal single gas detection device warns against hazardous concentrations of carbon monoxide, hydrogen sulphide, sulphur dioxide or oxygen with precision and reliability. Powerful sensors with a very low t-90 response time ensure quick reactions. The Pac 6000 is versatile thanks to its wide measurement range. For example, the CO sensor measures concentrations from 1 to 1,999 ppm, and the H<sub>2</sub>S sensor from 0.4 to 100 ppm.

#### Easy handling thanks to clear user guidance

The D-Light indicates whether the functionality of the device has been tested and that it is ready to use. The housing is also designed with your safety in mind: each sensor variant of the Dräger Pac 6000 features a clear, well visible colour coding, thereby minimising the chance of mistakes.

#### Robust design – even for the toughest conditions

The Pac 6000 can easily handle even extreme conditions: depending on the sensor, temperatures from -40°C to 55°C and air pressures between 700 and 1,300 mbar can be tolerated. A membrane filter protects the sensor from foreign matter such as dust and liquids. The shock-proof, chemical-resistant housing meets the requirements specified in the IP68 standard rating.

#### User-friendly display with all important information

The large display is non-verbal and clearly indicates the respective gas concentration. Other important information, such as remaining operating time and battery capacity, is also displayed. The bright backlighting ensures clear reading of all values in the dark.

#### 360° alarm with various functions

If the Dräger Pac 6000 measures hazardous gas concentrations, it sets off an audible, visual, and noticeable vibrating alarm. Two bright, flashing LEDs on the top and bottom of the device ensure that the alarm is easily visible from all sides. The acoustic alarm

reaches a volume of 90 dB. The display can show the peak concentration measured at any given moment. Earlier alarms registered can also be retrieved at a later time even if acknowledged. The Pac 6000 with oxygen sensor has two additional alarm thresholds in addition to the standard alarm threshold setting.

#### Event logger for analyses and reports

The Dräger Pac 6000 logs concentrations and events along with date and time. The data can be downloaded to a PC via an interface and processed further there.

#### Economical operational costs

All of the versions of the Pac 6000 are equipped with extremely durable DrägerSensors<sup>®</sup> and a powerful battery. Neither the sensor nor the battery need to be changed for the entire two-year maintenance-free service life of the H<sub>2</sub>S, SO<sub>2</sub> and CO versions. The service life of the Dräger Pac 6000 starts when it is first activated. The device automatically switches off after two years. The Pac 6000 is protected against water, dust and other foreign bodies by a special membrane filter. When the filter becomes heavily soiled you can quickly and easily replace it yourself. The device is then ready to use again in no time.

#### Fast function test saves time and money

Function tests and calibrations can be carried out especially efficient using the Dräger X-dock<sup>®</sup> calibration station. The automatic bump tests in the X-dock are a cost-efficient and convenient solution thanks to short test duration and extremely low test gas consumption. The Dräger Pac 6000 is simply placed in the bump test station and automatically selects the correct setting.

# Dräger Pac<sup>®</sup> 6000

## TECHNICAL SPECIFICATIONS

Dimensions	64 x 84 x 20 mm (w x h x d)
Weight	Approx. 106 g (113 g with clip)
Device service life	2 years from first activation
Battery service life	2 years (O <sub>2</sub> min. 12 months)
Ingress protection	IP68
Air pressure	700 to 1300 hPa
Air humidity	10 to 90% relative humidity, non-condensing
Temperature	-30 °C to +55 °C (briefly down to -40 °C for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 6000 CO LC	1	8326321
Dräger Pac 6000 H <sub>2</sub> S LC	1	8326320
Dräger Pac 6000 O <sub>2</sub>	1	8326322

# Dräger Pac® 6500



## Dräger PAC 6500

Quick sensor response time and powerful battery

The robust Dräger Pac® 6500 is your reliable companion under tough conditions. The personal single-gas detection device measures CO, H<sub>2</sub>S, SO<sub>2</sub> or O<sub>2</sub> quickly and precisely. Quick sensor response times and a powerful battery also ensure safety.

### Strong performance for maximum safety

You can rely on the Dräger Pac 6500: the personal single-gas detection device warns against hazardous concentrations of carbon monoxide, hydrogen sulphide, sulphur dioxide or oxygen with precision and reliability. Powerful sensors with a very low t-90 response time ensure quick reactions. The Pac 6500 is versatile thanks to its wide measurement range. For example, the CO sensor measures concentrations from 1 to 1,999 ppm, and the H<sub>2</sub>S sensor from 0.4 to 100 ppm.

### Easy handling thanks to clear user guidance

The D-Light indicates whether functionality of the device has been tested and whether it is ready to use. The housing is also designed with your safety in mind: each sensor variant of the Dräger Pac 6500 features clearly visible colour coding, thereby minimising the chance of mistakes.

### Robust design – even for the toughest conditions

The Pac 6500 can easily handle even extreme conditions. Depending on the sensor, temperatures from -40 °C to 55 °C and air pressures between 700 and 1,300 mbar can be tolerated. A membrane filter protects the sensor from foreign matter such as dust and liquids. The shock-proof, chemical-resistant housing meets the requirements specified in the IP68 standard rating.

### User-friendly display with all important information

The large display is word-free and clearly indicates the respective gas concentration. Other important information, such as the battery capacity, is also displayed. The bright backlighting ensures that all values are clearly legible in the dark.

### 360° alarm with various functions

If the Dräger Pac 6500 measures hazardous gas concentrations, it sets off an audible, visual and perceptible vibrating alarm. Two bright, flashing LEDs on the top and bottom of the device ensure that the alarm is easily visible from all sides. The acoustic signal reaches a volume of 90 dB. The display can show the peak concentration measured at any given moment. Earlier alarms registered can also be retrieved at a later time even if they have been acknowledged. The Pac 6500 with oxygen sensor has two additional alarm thresholds in addition to the standard alarm threshold settings.

### Data logger and event logger for analyses and reports

The Dräger Pac 6500 logs concentrations and events along with the date and time. The data can be loaded on a PC via an interface and processed further there.

### Economical operating costs

All versions of the Pac 6500 are equipped with extremely durable DrägerSensors® and a powerful battery. Neither the sensor nor the battery need to be changed over the two-year maintenance-free service life of the H<sub>2</sub>S, SO<sub>2</sub> and CO versions. The Pac 6500 is protected against water, dust and other foreign bodies by a special membrane filter. When the filter becomes heavily soiled in use, you can quickly and easily replace it yourself. The device is then ready to use again right away.

### Fast function test saves time and money

Function tests and calibrations can be carried out especially efficient in the Dräger X-dock® calibration station. The automatic bump tests in the X-dock are a cost-efficient and convenient solution thanks to the short test duration and the extremely low consumption of test gas. The Pac 6500 is simply placed in the bump test station and automatically selects the correct setting.

# Dräger Pac<sup>®</sup> 6500

## TECHNICAL SPECIFICATIONS

Dimensions	64 x 84 x 20 mm (w x h x d)
Weight	Approx. 106 g (113 g with clip)
Battery service life	2 years (O <sub>2</sub> min. 12 months)
Ingress protection	IP68
Air pressure	700 to 1300 hPa
Air humidity	10 to 90% relative humidity, non-condensing
Temperature	-30 °C to +55 °C (briefly down to -40 °C for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 6500 CO LC	1	8326331
Dräger Pac 6500 H <sub>2</sub> S LC	1	8326330
Dräger Pac 6500 O <sub>2</sub>	1	8326332

# Dräger Pac<sup>®</sup> 7000

Safety at the workplace always takes priority: depending on the sensor selection, the single gas detector, Dräger Pac<sup>®</sup> 7000, provides a reliable warning against dangerous concentrations of 14 different gases. Unique: the optional 5-year warranty for the H<sub>2</sub>S, O<sub>2</sub> and CO versions.



**Dräger PAC 7000**  
High performance and unlimited use  
MED approved

## Features

The detector is an impressive instrument, offering a high level of reliability and rapid warning against harmful concentrations of CO, CO<sub>2</sub>, Cl<sub>2</sub>, HCN, H<sub>2</sub>S, NH<sub>3</sub>, NO<sub>2</sub>, O<sub>2</sub>, PH<sub>3</sub>, SO<sub>2</sub>.

## Small and robust

With its compact, handy, pocket-sized design, Dräger Pac 7000 is tailor-made for personal monitoring in daily work activities. Dräger Pac 7000 was specially designed as a small and robust instrument to meet work requirements. The impact-resistant housing features a protective rubber coating and is resistant to corrosive chemicals. Dräger Pac 7000 meets the requirements of IP 65. What is more, protection against electromagnetic effects was specially optimized, while a stable and tightly locking crocodile clip made of stainless steel allows the instrument to be fastened securely to the wearer's clothing. To allow for individual preferences, the crocodile clip can be turned and the two alarm lights are positioned diagonally opposite at the corners of the instrument. Easy battery and sensor replacement are key factors to ensure a long instrument life.

## Concentration display

The concentration display uses no written text (to avoid language problems), showing all information in the form of large numerals or symbols. In case of an alarm, or at the push of a button, the display can be backlit for better readability. The currently measured concentration is displayed continuously, as are notice and warning functions. In addition, the respective peak concentration, average concentration (TWA value) and short-term exposure limit (STEL) relating to the measurement period can be accessed.

## New sensor technology "en miniature"

Dräger Pac 7000 boasts the latest in sensor technology. The small size of the sensor supports the application-oriented design of the instrument. Any gas hazards that may occur are displayed immediately thanks to the very short diffusion paths inside the instrument and the extremely quick electrochemical reaction times achieved by

the new sensors. The sensor is positioned inside the housing such as to allow gas to reach it from above and from in front. This positioning minimizes the danger of the gas inlet opening being accidentally covered.

## Alarm / warning functions

In conjunction with a vibration alarm, a visual and audible alarm is triggered if the two adjustable alarm thresholds are exceeded (or if oxygen levels fall below the set value). For optimum perception a two-tone alarm is used. Furthermore, Dräger Pac 7000 features an adjustable TWA alarm and STEL alarm. A warning is likewise given at the end of the battery capacity or in the event of a device error.

## Bump test mode

The safety of personnel must always have the first priority. Their safety depends on measurement and warning equipment functioning perfectly, which is why national regulations demand regular testing of equipment function using a known gas concentration. Dräger Pac 7000 is equipped with a bump test mode. When a bump test (function test or challenge test) needs to be performed, a notice icon appears on the screen. The bump test interval can be set by the user. The result of the bump test is saved in the instrument. The instrument is equipped with an IR interface and can be linked to a PC via the connecting cradle or E-Cal system. Dräger Pac Vision or Dräger CC Vision software installed on the PC enables configuration of all functions, as well as calibration and download of the stored data.

## Adjustable operating time

In addition, the instrument allows an individual operating time to be set (in days), e.g. a calibration interval, inspection interval or individual operating time end.

## Data logger

The Pac 7000 features a data logger in which all concentrations and events are stored.

# Dräger Pac<sup>®</sup> 7000

## TECHNICAL SPECIFICATIONS

Dimensions	64 x 84 x 20 mm
Weight	120 gr
Temperature	-30°C to +50°C
Pressure	700 tot 1300 hPa
Humidity	10 to 90% r.v.
Ingress protection	IP 65
Display	Language-free LCD display, continuous indication of concentration, peak concentration, TWA- and STEL-concentration, operating time, notice and alarm functions
Battery life	5500 hours (O2 version: 2700 hours)
Data logger	Storage of concentration und events with date and time (120 hours @ 1 data set per minute)
Acoustic alarm	Two-tone-alarm, typical > 90 dB at a distance of 30 cm
Approvals	CE-Sign (89/336/EEC, 94/9/EC) ATEX II 1 G EEx ia IIC, T4 I M 1 EEx ia I, T 4 UL Class I, II, Div 1, Group A, B, C, D, E, F, G, Temp. Code T4 cUL Class I, II, Div 1, Group A, B, C, D, E, F, G, Temp. Code T4 IECEX EEx ia IIC, T4 Marine Equipment Directive 96/98/EC Measurement Performance Certificate (acc. to ATEX) EN 45544 (CO, H2S), EN 50104 (O2), EN 50271

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 7000 O2	1	8318675
Dräger Pac 7000 CO	1	8318676
Dräger Pac 7000 H2S	1	8318677
Dräger Pac 7000 PH3	1	8318974
Dräger Pac 7000 CO2	1	8318975
Dräger Pac 7000 SO2	1	8318976
Dräger Pac 7000 H2S LC	1	8321004
Dräger Pac 7000 leather carrying case	1	4543822
Dräger Pac 7000 calibration adapter	1	8318588
Dräger Bump Test Station for Dräger Pac 7000, not including gas cylinder	1	8317410
Dräger Bump Test Station for Dräger Pac 7000, complete with one test gas cylinder 58L (gas and concentration variable)	1	8318586
Connecting Cradle, complete with USB cable and Dräger Pac Vision software	1	8318587
E-Cal instrument module for connection of 4 Dräger Pac 1000 to 7000 to a Dräger E-Cal Master Station or to Module Adapter	1	8318589
Dräger Pac 7000 lithium battery: 3V CR 123A	1	4543808
Dräger Pac 7000 water and dust filter	1	8323615

## Dräger Pac<sup>®</sup> 8000



**Dräger PAC 8000**  
Detects 29 different gasses

With the robust Dräger Pac<sup>®</sup> 8000, you'll be well equipped for tough conditions: this non-disposable, personal single-gas detection device is a reliable and precise instrument, which detects hazardous concentrations of 29 different gases, including special gases like NO<sub>2</sub>, O<sub>3</sub> or COCl<sub>2</sub>.

### Strong performance for maximum safety

You can count on the Dräger Pac 8000 to give you reliable, precise readings at any time even in extreme conditions. Our powerful sensors with a low t-90 response time ensure quick reactions. In addition to the standard alarms, you can define extra alarm thresholds for TLV<sup>®</sup>\* and STEL\*. \* TLV<sup>®</sup> = Threshold Limit Values, STEL = Short Term Exposure Limit

### Sensors for special gases

The Pac 8000 can be fitted with sensors for carbon dioxide (CO<sub>2</sub>), chlorine gas (Cl<sub>2</sub>), hydrogen cyanide (HCN), ammonia (NH<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), phosphine (PH<sub>3</sub>) and organic vapours (OV or OV-A). The Dräger Pac 8000 performs especially well when detecting different special gases: it can detect ozone (O<sub>3</sub>) from concentrations as low as 0.02 ppm and phosgene (COCl<sub>2</sub>) from 0.01 ppm. The Pac 8000 detects nitrogen dioxide (NO<sub>2</sub>) from concentrations as low as 0.04 ppm.

### Robust design – even for the toughest conditions

The Pac 8000 can easily handle even extreme conditions. The sensors can tolerate air pressures between 700 and 1,300 mbar. A membrane filter protects the sensor from foreign matter such as dust and liquids. The shock-proof, chemical-resistant housing meets the requirements specified in the IP68 standard rating.

### Easy handling thanks to clear user guidance

The D-Light indicates whether functionality of the device has been tested and that it is ready to use. The housing is also designed with your safety in mind: each sensor variant of the Dräger Pac 8000 features clear, well visible colour coding, thereby minimising the chance of mistakes.

### User-friendly display with all important information

The large display is non-verbal and clearly indicates the respective gas concentration. Other important information, such as the unit of concentration and battery capacity, is also

displayed. The bright backlighting ensures that all values can be clearly read off in the dark.

### 360° alarm with various functions

If the Dräger Pac 8000 measures hazardous gas concentrations, it sets off an audible, visual and noticeable vibrating alarm. Two bright, flashing LEDs on the top and bottom of the device ensure that the alarm is easily visible from all sides. The acoustic signal reaches a volume of 90 dB. The display can show the peak concentration measured at any given moment. Earlier alarms registered can also be retrieved at a later time even if acknowledged.

### Data logger and event logger for analyses and reports

The Pac 8000 logs concentrations and events along with date and time. The data can be downloaded to a PC via an interface and processed further there.

### Economical operational costs

All of the versions of the Dräger Pac 8000 are equipped with extremely durable Dräger sensors<sup>®</sup> and a powerful battery. The Pac 8000 is protected against water, dust and other foreign bodies by a special membrane filter. When the filter becomes heavily soiled in use, you can quickly and easily replace it yourself. The device is then ready to use again in no time.

### Fast function test saves time and money

Function tests and calibrations can be carried out especially efficiently in the Dräger X-dock<sup>®</sup> calibration station. The automatic bump tests in the X-dock are a cost-efficient and convenient solution thanks to short test duration and the extremely low test gas consumption. The Pac 8000 is simply placed in the bump test station and automatically selects the correct setting.



# Dräger Pac<sup>®</sup> 8000

## TECHNICAL SPECIFICATIONS

Dimensions	64 x 84 x 20 mm (w x h x d)
Weight	Approx. 106 g (113 g with clip)
Battery service life	2 years
Ingress protection	IP68
Air pressure	700 to 1300 hPa
Air humidity	10 to 90% relative humidity, non-condensing
Temperature	-30 °C to +55 °C (briefly down to -40 °C for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 8000 HCN	1	8326353
Dräger Pac 8000 NH <sub>3</sub>	1	8326354
Dräger Pac 8000 PH <sub>3</sub>	1	8326355
Sensorfilter 8x00 (sensor grid, silver), set of 4 pieces	1	8326852
Sensorfilter 8x00 (housing silver), set of 40 pieces	1	8326859

## Dräger Pac<sup>®</sup> 8500



**Dräger PAC 8500**  
Measuring two gases at once

The Dräger Pac 8500<sup>®</sup> single-gas detection device is a reliable and precise instrument even under the toughest of conditions. The device can be equipped with a hydrogen-compensated CO sensor or a Dräger dual sensor. This gives you the option of measuring two gases at once: either H<sub>2</sub>S with CO or O<sub>2</sub> with CO.

### Strong performance for maximum safety

You can count on the Dräger Pac 8500 to give you reliable, precise readings at any time even under extreme conditions. Our powerful sensors with a low t-90 response time ensure quick reactions. In addition to the standard alarms, you can define extra alarm thresholds for TLV<sup>®</sup>\* and STEL\*. The Pac 8500 also provides a data and event logger for logging concentrations and events along with the date and time. The data can be loaded on a PC via an interface and processed further there. \* TLV<sup>®</sup> = Threshold Limit Values, STEL = Short Term Exposure Limit

### Convert to two-gas detection device using a dual sensor

Your single-gas detection device can become a two-gas device when a dual sensor is used. The Dräger Pac 8500 series offers the following sensor combinations: hydrogen sulphide with carbon monoxide or oxygen with carbon monoxide. Dual sensors enable detection of even low concentrations – and all in one and the same handy device. Measuring two gases at the same time reduces downtime as well. You can take vol.% measurements of oxygen and ppm measurements of carbon monoxide simultaneously using just one sensor.

### Measurement of carbon monoxide with significantly reduced cross sensitivity

In industries where carbon monoxide needs to be measured with hydrogen as a background gas, the measured value for carbon monoxide may be falsified by cross sensitivity. Thanks to the special hydrogen-compensated CO sensor from Dräger, this cross sensitivity to hydrogen is significantly reduced in the display of carbon monoxide.

### Robust design – even for the toughest conditions

The Pac 8500 can easily handle even extreme conditions. The sensors can tolerate air pressures between 700 and 1,300 mbar. A membrane filter protects the sensor from foreign matter such as dust and liquids. The

shock-proof, chemical-resistant housing meets the requirements specified in the IP68 standard rating.

### Easy handling thanks to clear user guidance

The D-Light indicates whether functionality of the device has been tested and if it is ready to use. The housing is also designed with your safety in mind: each sensor variant of the Dräger Pac 8500 features clearly visible colour coding, thereby minimising the chance of mistakes.

### User-friendly display with all important information

The large display is word-free and clearly indicates the respective gas concentration. Other important information, such as the unit of concentration and battery capacity, is also displayed. The bright backlighting ensures that all values are clearly legible in the dark.

### 360° alarm with various functions

If the Dräger Pac 8500 measures hazardous gas concentrations, it sets off an audible, visual and perceptible vibrating alarm. Two bright, flashing LEDs on the top and bottom of the device ensure that the alarm is easily visible from all sides. The acoustic signal reaches a volume of 90 dB. The display can show the peak concentration measured at any given moment. Earlier alarms registered can also be retrieved at a later time even if they have been acknowledged. The Pac 8500 with oxygen sensor has two additional alarm thresholds in addition to the standard alarm threshold settings.

### Economical operating costs

All of the versions of the Dräger Pac 8500 are equipped with extremely durable DrägerSensors<sup>®</sup> and a powerful battery. The Pac 8500 is protected against water, dust and other foreign bodies by a special membrane filter. When the filter becomes heavily soiled in use, you can quickly and easily replace it yourself. The device is then ready to use again right away. Thanks to the powerful battery, the Pac does not require charging on a daily basis and is easy to handle.

### Fast function test saves time and money

## Dräger Pac<sup>®</sup> 8500

Function tests and calibrations can be carried out especially efficient in the Dräger X-dock<sup>®</sup> calibration station. The automatic bump tests in the X-dock are a cost-efficient and convenient solution thanks to the short test

duration and the extremely low consumption of test gas. The Pac 8500 is simply placed in the bump test station and automatically selects the correct setting.

### TECHNICAL SPECIFICATIONS

Dimensions	64 x 84 x 20 mm (w x h x d)
Weight	Approx. 106 g (113 g with clip)
Battery service life	2 years
Ingress protection	IP68
Air pressure	700 to 1300 hPa
Air humidity	10 to 90% relative humidity, non-condensing
Temperature	-30 °C to +55 °C (briefly down to -40 °C for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 8500 CO LC / H <sub>2</sub> LC	1	8326365
Dräger Pac 8500 CO LC / O <sub>2</sub>	1	8326366
Sensorfilter 8x00 (sensor grid, silver), set of 4 pieces	1	8326852
Sensorfilter 8x00 (housing silver), set of 40 pieces	1	8326859

## Dräger X-am<sup>®</sup> 2500



**Dräger X-am 2500**  
Robust 1- to 4-gas detector for personal monitoring

The Dräger X-am 2500<sup>®</sup> was especially developed for use as personal protection. The 1 to 4 gas detector reliably detects combustible gases and vapours, as well as O<sub>2</sub>, CO, NO<sub>2</sub>, SO<sub>2</sub> and H<sub>2</sub>S. Reliable and fully mature measuring technology, durable sensors and easy handling guarantee a high degree of safety with extremely low operating costs.

### Durable electrochemical sensors

Fully developed, high performance Dräger sensors in an extra small format for CO, H<sub>2</sub>S, O<sub>2</sub>, SO<sub>2</sub> and NO<sub>2</sub> gases enable safe use in industry, mining and in refineries. The impressive hydrogen sulphide sensor has a high resolution, so it can reliably measure even very low workplace limits. The non-consumptive and lead-free sensor for oxygen is characterized by an especially long service life of more than 5 years. Our CO and H<sub>2</sub>S sensors also have this long service life expectation, so they contribute to especially low operating costs.

### Poison-resistant Ex Sensor

The innovative, catalytic Ex sensor is impressive due to its high resistance to silicone and hydrogen sulphide. Together with the high degree of drift stability, this resistance enables an extraordinarily long service life of more than 4 years. Its high sensitivity with regard to flammable gases and vapours is confirmed by technical approval for measuring according to IEC/EN 60079-29-1 from methane to nonane. This approval also demonstrates the suitability of this instrument for use in refineries and in the chemical industry as well.

### Maximum safety

The Dräger X-am 2500 has Ex approval for zone 0, so it is clearly designed for very high user safety in areas subject to explosion hazard. The functional design ensures that gas can enter from above and from the side – even if the instrument is inside a pocket or if the front gas entry is accidentally covered.

### Fast, easy and inexpensive

From functional test to complete documentation, users have access to practical solutions that provide safety for implementation at any time. The Dräger Bump Test Station, which does not require a local power source, and the automatic Dräger X-dock testing and calibration station for comprehensive equipment management are ideal system additions that save time and effort. Together with the Dräger X-dock, the high quality Dräger sensors enable quick

bump tests of 8 to 15 seconds<sup>1</sup> with very low gas consumption. This significantly reduces your equipment operating costs.

- 1) With standard sensors: CH<sub>4</sub>, O<sub>2</sub>, CO, H<sub>2</sub>S

### Diffusion or pump

For clearance measurements for tanks and shafts or when searching for leaks, an optional external pump with a hose up to 30 m long is the optimum solution. When the measuring instrument is inserted, the pump function starts automatically. The switch from diffusion to pump operation can be handled quickly and easily without tools or screws.

### Ergonomic and robust

Thanks to its low weight and ergonomic design, the Dräger X-am 2500 offers a high degree of wearing comfort. The practical two button control panel and easy menu navigation allow the instrument to be used intuitively, despite its comprehensive functionality. The integrated protective rubber coating and sensors that are not sensitive to shock provide additional safety in case of impacts or vibrations. Moreover, the Dräger X-am 2500 is not sensitive to electromagnetic radiation, e.g. from wireless devices. The Dräger X-am 2500 is water and dust resistant in accordance with protection class IP 67, so full functionality is guaranteed even if it falls into the water.

### Reliable power supply

The Dräger X-am 2500 can operate with either alkaline batteries or with rechargeable NiMH batteries. This enables a reliable power supply for more than 12 hours, and with the high capacity battery pack more than 13 hours. Depending on the requirements, the batteries can be charged either in the workshop or in a vehicle. Operating time without Ex sensor is typically more than 250 hours.

# Dräger X-am<sup>®</sup> 2500

## TECHNICAL SPECIFICATIONS

Dimensions	48 x 130 x 44 mm
Weight	220 - 250 gr
Temperature	-20°C to +50°C
Pressure	700 tot 1300 mbar
Humidity	10 to 95% r.h.
Alarms	Visual 360°, Audible Multi-tone > 90 dB at 30 cm, Vibration
Ingress Protection	IP67
Operating time	> 12 hours (without Ex sensor > 700 hours)
Charging time	< 4 hours
Data logger	Retrievable using an infrared interface > 1000 h with 4 gases at a recording interval of 1 value per minute
Approvals	ATEX: II 2G EEx ia d IIC T4/T3; I M2 Eex ia d I CE mark: 89/336/EEG MED

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-am 2500 Ex/O <sub>2</sub> , excl. charger and incl. battery	1	8323900/2
Dräger X-am 2500 Ex/O <sub>2</sub> /CO/H <sub>2</sub> S, excl. charger and incl. battery	1	8323900/3
Dräger X-am 2500 Ex/O <sub>2</sub> /CO/H <sub>2</sub> S (LC), excl. charger, incl. battery	1	8323900/4
Charging kit - (NiHM battery T4, charger)	1	8318785

## Dräger X-am® 3500

The Dräger X-am® 3500 was especially designed for clearance measurements. The 1 to 4 gas detector reliably detects flammable gases and vapours as well as O<sub>2</sub>, CO, H<sub>2</sub>S, NO<sub>2</sub> and SO<sub>2</sub>. The innovative signalling design and extensive range of accessories ensure optimum safety and easy handling.



**Dräger X-am 3500**  
especially designed for clearance  
measurements

### **Specially designed for use with a pump, optimised for clearance measurement**

The Dräger X-am 3500 is equipped with a very powerful pump. It can be connected with hoses of up to 45 metres in length. A pump adapter makes it easy to switch between diffusion and pump mode at any time. This means the pump is only operated when you actually need it. That saves energy, reduces wear and tear, and thereby extends the lifespan of the pump. Handy and durable, the Dräger X-am 3500 is intuitive to operate single-handedly using three function keys. The easy-to-read colour display clearly lays out all the information for you. Thanks to its compact and robust construction, the device can withstand even the harshest conditions.

### **Clear signalling design**

The signal system of the Dräger X-am 3500 is based on a clear colour code, in accordance with the requirements of the EN 60079-29-1, EN 45544-1 and EN 50104: - Red light = gas alarm, - Yellow light = device-related alarm, e.g. low battery, - Green light = device is ready for use. The green glow of the D-light allows you to see from a distance whether the device has been properly tested and is ready for use. In case of an alarm, the X-am 3500 alerts you with colourful alarm LEDs, a loud horn (100 dB(A) at a distance of 30 cm), and clearly palpable vibration. Optionally, four preset hazard symbols are available for the display

which explicitly indicate the presence of explosive or toxic gas hazards, for example. This allows the user to easily recognise the type of hazard based purely on the symbol displayed.

### **Economical Fleet Management**

Bumptest and calibration are carried out simply and quickly using the Dräger X-dock® calibrating station. Its low test gas consumption keeps operating costs to a minimum. Its reporting function and numerous other useful features make the X-dock Manager PC software a smart addition to any fleet management operation. To identify the devices in the fleet, you can either use tried and tested barcodes or an integrated RFID transponder.

### **Inductive charging protects against wear and tear**

The X-am 3500 features inductive charging. This makes it easier to operate and increases the lifespan of the device. Issues like corrosion and contact problems in the charging cradle are a thing of the past. You can charge (outside of explosion-hazard zones) and measure at once, e.g. when in use inside vehicles or on machinery. The charging cradle can connect with one another, taking up minimal space, and are compatible with existing Dräger X-am® series cradles.

## TECHNICAL SPECIFICATIONS

Dimensions	179 x 77 x 42 mm (h x w x d)
Weight	Approx. 495 g, depending on sensor configuration, without strap, without pump Approx. 550 g, depending on sensor configuration, without strap, with pump
Temperature	-20°C to +50°C
Pressure	700 to 1.300 hPa
Humidity	10 to 90% (short-term up to 95%) r.h.
Ingress protection	IP67
Energy supply	Lithium-ion battery, rechargeable, inductive charging
Charging times	Typically 4 hours after use during a shift of max. 10 hours
Alarms	Visual: 3 LED 'red' (gas alarms), 3 LED 'yellow' (device alarms) Acoustic: Multi-tone, typically 100 dB(A) at 30 cm Vibration

# Dräger X-am<sup>®</sup> 3500

Start-up times	Typically <60 seconds for standard sensors
Data storage	12 MB, e.g. at 10 minutes per hour of gas exposure with measuring values changing by the second on all 4 channels: approx. 300 hours
Pump operation	Max. hose length 45 m
Approvals	ATEX / IECEx: I M1, II 1G Ex da ia I Ma, Ex da ia IIC T4 Ga, Metrological approval pending EAC (Please contact Dräger regarding availability.): PO Ex da ia I Ma X Ex da ia IIC T4 Ga X cCSAus (Please contact Dräger regarding availability.): Class I, Zone 0, AEx da ia IIC T4 Ga Div 1, Gr. E, F, G T4 CE labelling MED / DNV GL

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-am 3500 Basic	1	8328420
Dräger X-am <sup>®</sup> 3500 Ex, O2 1 (without charging equipment)	1	8328412
Dräger X-am <sup>®</sup> 3500 Ex, O2, CO LC, H2S LC1 Set (with charging equipment)	1	8328419

## Dräger X-am<sup>®</sup> 5000



### Dräger X-am 5000

The smallest gas detection instrument for 5 gases

The Dräger X-am 5000 belongs to a new generation of gas detectors, developed especially for personal monitoring applications. This 1 to 5-gas detector reliably measures combustible gases and vapors as well as O<sub>2</sub> and harmful concentrations of O<sub>3</sub>, Cl<sub>2</sub>, CO, CO H<sub>2</sub>-CP, CO<sub>2</sub>, H<sub>2</sub>, H<sub>2</sub>S, HCN, NH<sub>3</sub>, NO, NO<sub>2</sub>, PH<sub>3</sub>, SO<sub>2</sub>, COCl<sub>2</sub>, organic vapors, Odorant and Amine.

#### Ergonomic mobile phone design

Despite its advanced functionality, the Dräger X-am 5000's practical mobile phone design and light weight make it comfortable to carry. Reduced to its essentials, the two button control panel and easy to follow menu allow for intuitive use.

#### Flexible sensor exchange

It is easy to exchange, upgrade or calibrate the sensors to other gases. The ability to customize the Dräger X-am 5000's sensors makes more applications possible, including rental equipment.

#### Poison-resistant Ex Sensor

For improved safety when facing unknown and potentially explosive hazards – the Dräger X-am 5000 provides dependable warnings in the event of explosive atmospheres thanks to the high level of sensitivity of the innovative catalytic Ex sensor. It not only responds quickly to explosive gases and combustible organic vapors, but is also highly resistant against sensor poisons such as silicone and hydrogen sulfide. In combination with its long term stability this offers an extraordinary long expected sensor lifetime of more than 4 years. This will reduce your operational costs.

#### Durable Sensor technology

Equipped with durable XXS sensor technology, the Dräger X-am 5000 offers maximum security at extremely low operational costs. The sensor's resistance, in combination with its long term stability, provides the sensor with a lifetime in excess of four years, which can help reduce your operational costs.

#### Robust and water-tight

The Dräger X-am 5000 is water and dust resistant according to IP 67 standards. This means that the detector remains fully functional and ready for use even after being dropped into water. The integrated rubber protection and shock-proof sensors provide additional resistance to impact and vibration. Moreover, the Dräger X-am 5000 is resistant to electromagnetic interference.

#### External pump

The optional external pump, which operates with a hose up to 30 (98 feet) meters long, makes it possible to use the detector for pre-entry measurements into confined spaces such as tanks, shafts, etc. The pump starts automatically when the detector is inserted.

#### Area Monitoring

In combination with the Dräger X-zone 5000 the gas detector can be used for various area monitoring applications. Up to 25 Dräger X-zone 5000 units can be automatically interconnected to form a wireless fence line. This interconnection of the area monitoring devices allows for the fast securing of larger areas, e.g. pipelines or industrial tanks – even within the scope of industrial shutdowns.

#### Optimum solutions for function or bump tests and calibrations

Simple, fast and professional: from a function or bump test to complete documentation, users can choose from a range of practical, on-site solutions that offer maximum safety for every application. The Dräger E-Cal automatic test and calibration station and the Dräger Bump Test Station are ideal system extensions that save time and reduce workload. Fresh air, mixed gas and single gas calibrations can be done directly using the Dräger X-am 5000 menu.

#### Flexible power supply

The Dräger X-am 5000 can be used with either the standard alkaline or rechargeable NiMH batteries. In addition, it can be fitted with a T4 battery that can be charged while still inside the instrument. An optional Save Energy Mode makes it possible to increase the operating time of Dräger X-am 5000 to more than 40 hours. This is done by selecting a measurement interval of either 1 second (the standard), 10 or 20 seconds for the CatEx sensor.



# Dräger X-am<sup>®</sup> 5000

## TECHNICAL SPECIFICATIONS

Dimensions	48 x 130 x 44 mm
Weight	approx. 220 gr
Temperature	-20°C tot +50°C
Pressure	700 tot 1300 mbar
Humidity	10 to 95% r.v.
Ingress Protection	IP 67
Operating times	> 12 hours (without Ex sensor > 700 hours) when using the Save Energy Mode > 40 hours
Charging times	< 4 hours
Data logger	Can be read out via Infrared > 1,000 hours with 5 gases and a recording interval of 1 value per minute
Pump operation	Maximum hose length 30 meter
Approvals	<p>ATEX I M1 Ex ia I            II 1G Ex ia IIC T3 (Zone 0)            I M2 Ex d ia I            II 2G Ex d ia IIC T4/T3</p> <p>Measurement performance certificate according to:            - EN 50104 (2002) + A1 (2004) O2            - EN 45544 CO &amp; H2S            - EN 60079-29-1:2007 Methane to Nonane            - EN 50271:2001 Software and Documentation</p> <p>UL Class I &amp; II, Div. 1 Group A, B, C, D, E, F, G T.-Code T4/T3            CSA Class I, Div. 1 Group A, B, C, D T.-Code T4/T3            IECEx Ex ia I            Ex ia IIC T3            Ex d ia I            Ex d ia IIC T4/T3            CE-mark Electromagnetic compatibility Directive 2004/108/EG; EN 50270:2006            MED Marine Equipment Directive 96/98/EC            MSHA</p>

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-am 5000 Ex/O <sub>2</sub> , including battery / charger	1	8320000/2
Dräger X-am 5000 Ex/O <sub>2</sub> /H <sub>2</sub> S LC, including battery / charger	1	8320000/3
Dräger X-am 5000 Ex/O <sub>2</sub> /CO/H <sub>2</sub> S LC, including battery / charger	1	8320000/4
<b>Sensors</b>		
DrägerSensor Cat-Ex 125	1	6812950
DrägerSensor XXS CO LC	1	6813210
DrägerSensor XXS H <sub>2</sub> S LC	1	6811525
DrägerSensor XXS O <sub>2</sub>	1	6810881
DrägerSensor XXS CO	1	6810882
DrägerSensor XXS CO <sub>2</sub>	1	6810889

## Dräger X-am® 5600



### Dräger X-am 5600

Small, light and tough for single-handed detection of up to 6 gases

Featuring an ergonomic design and innovative infrared sensor technology, the Dräger X-am® 5600 is the smallest gas detection instrument for the measurement of up to 6 gases. Ideal for personal monitoring applications, this robust and water-tight detector provides accurate, reliable measurements of explosive, combustible and toxic gases and vapors as well as oxygen.

#### Small and yet robust

Small, light and easy to use - the robust and water-tight Dräger X-am 5600 is designed for single-handed operation in tough industrial environments. Water- and dust proof according to IP 67 and with an integrated rubber boot, the device provides optimal functionality even under harsh conditions.

#### Durable infrared technology

Thanks to the high stability and a resistance to contamination, Dräger infrared sensors can generally be used for up to eight years. This advanced technology reduces the cost of ownership considerably because less replacement sensors are needed. In addition, a sensor calibration is only necessary every 12 months which reduces maintenance costs.

#### Single or dual sensor - accurate measurement results

The new Dräger infrared sensors can be used for the measurement of explosive substances or CO<sub>2</sub>. The infrared sensor IR Ex allows the measurement of explosive, combustible hydrocarbons in the range of the lower explosive limit. With this sensor, measurements in the range of 0-100 Vol.-% for methane, propane and ethylene are also possible.

The infrared sensor IR CO<sub>2</sub>, with a measurement resolution of 0.01 Vol.-%, provides safe and exact measurements as well as a warning against toxic concentrations of carbon dioxide in the ambient air. For those applications where the reliable measurement of explosive substances and CO<sub>2</sub> is specifically needed, the advantages of both can be achieved by a dual sensor (Dual IR CO<sub>2</sub>/Ex).

#### Also in combination with Hydrogen

Besides hydrocarbons, hydrogen can also be an explosive gas. Because sensors based on infrared technology do not warn against hydrogen explosion dangers, the Dräger X-am 5600 combines two sensor signals (Infrared Ex and electrochemical H<sub>2</sub>) for reliable hydrogen detection. The X-am 5600 provides the advantages of poison-free technology to

be used in areas where, until now, only catalytic Ex sensors have been used.

#### Various monitoring possibilities

Thanks to the combination of innovative infrared technology and the latest electrochemical Dräger XXSminiature sensors, this 1-to-6 gas detector reliably detects explosive, combustible and harmful concentrations of O<sub>2</sub>, Cl<sub>2</sub>, CO, CO<sub>2</sub>, H<sub>2</sub>, H<sub>2</sub>S, HCN, NH<sub>3</sub>, NO, NO<sub>2</sub>, PH<sub>3</sub>, SO<sub>2</sub> and organic vapors. With the PC software Dräger CC-Vision, the sensors can easily be exchanged, calibrated or converted to meet the needs of different applications.

#### Flexible use

This small gas detection instrument is perfectly suited as a personal monitor. The simple two-button control panel allows for the intuitive use of the device. The gas inlets – on the upper and front side – provide optimal measurement accuracy even if they are inadvertently placed in a pocket or a gas inlet is covered.

An optional external pump which can be operated with hoses up to 20 m or 65 ft. in length is the perfect solution for pre-entry measurements in tanks or pipelines. To monitor entire areas, the Dräger X-am 5600 can be used in combination with the innovative Dräger X-zone 5000.

#### Suitable for EX zone 0

The small and reliable gas detector is suitable for use in areas classified as zone 0, which are areas where explosive atmospheres are always to be expected.

#### Simple solution for bump tests

Simple, quick, and professional: From bump testing to complete documentation, users can choose from a range of practical, on-site solutions for optimal safety in every application. Both the Dräger E-Cal automatic test and calibration station and the Dräger Bump Test Station are ideal system extensions that save costs and time.

# Dräger X-am<sup>®</sup> 5600

## TECHNICAL SPECIFICATIONS

Dimensions	47 x 130 x 44 mm
Weight	250 gr
Temperature	-20 °C to +50 °C
Pressure	700 to 1300 hPa
Humidity	10 to 95 % r. h.
Ingress protection	IP 67
Operating time	~10 h or rather ~12 h
Charging time	< 4 hours
Data logger	Can be read out via Infrared > 1000 hours with 6 gases and a recording interval of 1 value per minute
Pump operation	Maximum hose length 30 m
Alarm	Visual 360°, Audible Multi-tone > 90 dB at 30 cm, Vibration
Approvals	ATEX I M1 Ex ia I Ma II 1G Ex ia IIC T4/T3 Ga IEC Ex ia I Ma Ex ia IIC T4/T3 Ga for MQG 01** MED (0736-YY)

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-am 5600	1	8321373
Consisting of: basic instrument with an integrated data logger and manufacturer's and calibration certificates. A functional instrument must include up to 4 sensors and a power supply unit.		
DrägerSensor Dual IR Ex/CO2	1	6811960
DrägerSensor IR Ex	1	6812180
DrägerSensor IR CO2	1	6812190
External pump (max. 20 meter hose length), excluding x-am device	1	8319400
Confined space entry set, with an external pump and 3 m or 9 ft. viton hose	1	8319399
Carrying case Dräger X-am 5600 external pump	1	8319385
NiMH Power Pack T4	1	8318639
Dräger x-am 5600: Battery NIMH HC T4	1	8322244
Dräger E-Cal Module for Dräger X-am 5600	1	8318754
Dräger Bump Test Station for Dräger X-am 5600 (without testcilinder)	1	8319131
Dräger Bump Test Station for Dräger X-am 5600, (including testgas cilinder 58L)	1	8319130

## Dräger X-am<sup>®</sup> 7000

Dräger X-am 7000 is the innovative solution for the simultaneous and continuous measurement of up to five gases. A combination of more than 25 sensors allows flexible solutions to individual monitoring tasks. It is the ideal companion in a variety of applications where the reliable detection of oxygen, toxic and combustible gases and vapors is necessary.



**Dräger X-am 7000**  
Modular, rugged and waterproof

### Flexibility through sensor variety

The extensive portfolio of over 25 different DrägerSensors allows the detection of more than 100 gases and vapors. The measuring range of the EC, Cat-Ex, IR and PID sensors can be changed to another gas within a list of gases by a push of a button – without the necessity of re-calibrating. In this way the instrument can be adapted easily to various applications. DrägerSensors are renowned for fast response, minor cross sensitivities, high accuracy and long life.

### Intelligent and interchangeable sensors

Each sensor is recognized automatically by the instrument. All sensors are pre-calibrated, and a reconfiguration of the Dräger X-am 7000 is done by simply changing a sensor. I.e. no additional service or maintenance is necessary. Intuitive software functions The software menu of the Dräger X-am 7000 was designed in partnership with our customers making it simple and easy to use. Functions such as TWA and STEL values, as well as functions, like peak hold can be viewed or switched on quickly and with minimal training.

### Strong integrated pump

The built-in high-performance pump makes it possible to sample gas using a hose up to 45 m/150 ft. long. The operation of the pump is continuously monitored, and the instrument will generate an alarm if the flow of gas reduces. The instrument is equipped with an internal plug and play pump pump included adapter. This powerful pump allows sampling via a hose or tube up to 45 m.

### Intuitive software functions

The software menu within the Dräger X-am 7000 was designed in partnership with our customers making it simple and easy to use. With the help of Dräger CC-Vision software, up to 5 different detection applications can be saved within the instrument. By doing so, the use of different instrument configurations can be set for that specific application. During operation, a simple change between these set parameters can be done via the instrument's menu.

### Strong Built-in Pump

The built-in high power pump allows to sample gas through an up to 45 m/150 ft. long tube. The operation of the pump is continuously monitored, and the instrument will generate an alarm if the flow is too low.

## TECHNICAL SPECIFICATIONS

Dimensions	150 x 140 x 75 mm
Weight	Instrument: 600 gr Rechargeable battery: 490 gr (3.0 Ah); 730 gr (6.0 Ah)
Temperature	- 20 to + 55 °C, short-term - 40 to + 60 °C
Pressure	700 to 1300 hPa
Humidity	10 to 95 % r. h.
Ingress protection	IP 67
Typical battery life	NiHM (4.8 V / 6.0 Ah): >20 hours
Audible alarm	>100 dB (A) at a distance of 30 cm
Charging time	3.5 to 7 hours, depending on battery type
Pump mode	Maximum length of tubing 45 m
Approvals	MED

# Dräger X-am<sup>®</sup> 7000

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger x-am 7000 basic instrument, exclusive battery, including pump and datalogger	1	8317400
DrägerSensor XS 2 O2	1	6810375
DrägerSensor H2S	1	6810370
DrägerSensor CO	1	6810365
DrägerSensor IR EX	1	6810460
DrägerSensor Smart CatEx PR	1	6812980
DrägerSensor Smart PID	1	8319100
NiMH-power pack 4,8V/3,0Ah	1	8317408
Charging module	1	8316487
Single charger (worldwide) for E-Cal module, max. 1 charge module	1	8315635
Leather carrying case	1	8317683
5 meter extension hose and driver for Dräger X-am 7000	1	8318371

## Dräger X-am® 8000



**Dräger X-am 8000**  
Up to 7 toxic measurements

Clearance measurement was never this easy and convenient: the Dräger X-am® 8000 measures up to seven toxic as well as flammable gases, vapours and oxygen all at once — either in pump or diffusion mode. Innovative signaling design and handy assistant functions ensure complete safety throughout the process.

### **Specially designed for use with a pump, optimised for your requirements**

The Dräger X-am® 8000 is equipped with a very powerful pump. It can be connected with hoses of up to 45 metres in length. A pump adapter makes it easy to switch between diffusion and pump mode at any time. This means the pump is only operated when you actually need it. That saves energy, reduces wear and tear, and thereby extends the lifespan of the pump. Handy and durable, the Dräger X-am® 8000 is intuitive to operate single-handedly using three function keys. The easy-to-read colour display clearly lays out all the information for you. Standard accessories include a sturdy shoulder strap, so you can comfortably carry the X-am 8000. Thanks to its compact and robust construction, the device can withstand even the harshest conditions.

### **Clearance measurement, release and documentation in no time**

The X-am 8000 effectively supports various applications with specially developed assistant functions that guide you through each process step by step. During clearance measurement, for example, the smart assistant calculates the necessary flooding time for the device and probe (FKM hose) based on parameters such as measuring gases, temperature limits, and the indicated hose length. When monitoring for high methane concentrations, an optional automatic measurement range switch makes it easier to take a reading: if the Cat-Ex sensor measures values above 100% LEL, the display switches to the range of 0 to 100 vol%. An additional useful tool is CSE Connect. It combines an Android app, specially designed for the X-am 8000, with a cloud-computing solution. Measuring jobs can be quickly and easily transferred to the app using an online application. An optional Bluetooth® module in the Dräger X-am 8000 enables measured values to be transferred automatically to the CSE Connect app. You can also easily and conveniently use the app to create measurement reports. This saves time and helps you manage your measuring tasks

during clearance measurements more efficiently.

### **Clear signalling design**

The signal system of the Dräger X-am 8000 is based on a clear colour code:

- Red light = gas alarm
- Yellow light = device-related alarm, e.g. low battery
- Green light = device is ready for use

### **Economical Fleet Management**

Bump test and calibration are carried out simply and quickly using the Dräger X-dock® calibrating station. Its low test gas consumption keeps operating costs to a minimum. Its reporting function and numerous other useful features make the X-dock Manager PC software a smart addition to any fleet management operation. To identify the devices in the fleet, you can either use tried and tested bar codes or an integrated RFID transponder.

### **Specialist for high and low hydrocarbon concentrations**

To measure hard-to-detect hydrocarbons, you can fit the Dräger X-am 8000 with one of two high-performance PID sensors. The PID HC covers a measurement range of 0 to 2,000 ppm (Isobutene). The PID LC ppb is particularly suited for a measurement range of 0 to 10 ppm (Isobutene) with a low resolution in the range below 1 ppm. For benzene-specific measurements, the X-am 8000 can be used with a pre-tube. The advantage: you only need one measuring device for this application, which significantly reduces the costs of purchasing, maintaining and transporting devices in use. The use of the pre-tubes is supported by a built-in assistant.

### **Inductive charging protects against wear and tear**

The X-am 8000 features inductive charging. This makes it easier to operate and increases the lifespan of the device. Issues like corrosion and contact problems in the charging cradle are a thing of the past. You can charge (outside of explosion-hazard zones) and measure at once, e.g. when in use

# Dräger X-am<sup>®</sup> 8000

inside vehicles or on machinery. The charging cradle can connect with one another, taking up minimal space, and are compatible with existing Dräger X-am<sup>®</sup> series cradles.

## TECHNICAL SPECIFICATIONS

Dimensions (HxWxD)	179 x 77 x 42 mm
Weight	Approx. 495 g, depending on sensor configuration, without strap, without pump Approx. 550 g, depending on sensor configuration, without strap, with pump
Temperature	-20 °C to + 50 °C
Pressure	700 to 1300 hPa
Humidity	10 to 90% (short-term up to 95%) r.h.
Ingress protection	IP 67
Energy supply	Lithium-ion battery, rechargeable, inductive charging
Alarms	visual: 3 LED 'red' (gas alarms), 3 LED 'yellow' (device alarms) acoustic: multi-tone, typically 100 dB(A) at 30 cm vibration
Charging time	Typically 4 hours after use during a shift of max. 10 hours
Pump operation	Maximum length of tubing 45 m
Approvals	ATEX / IECEx, MED / DNV GL, Class I, Zone 0, AEx da ia IIC T4 Ga, CE labelling
Warranty	3 years for the device, 1 year for the power supply, sensors: see DrägerSensor & Portable Instruments Handbook

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger x-am 8000 basic instrument	1	8325800

# Dräger X-Zone 5500

State-of-the-art area monitoring – the Dräger X-zone® 5500 in combination with the Dräger X-am® 5000, 5100 or 5600 gas detection instruments can be used for the measurement of up to six gases and extends the portable gas detection technology to a unique system with many applications.



**Dräger X-Zone 5500**  
Easily transportable, robust and water-proof

### Innovative area monitoring

The Dräger X-Zone® 5500 transforms the Dräger personal gas detection instruments X-am® 5000, 5100 and 5600 into innovative area monitoring devices for a wide range of applications. A patented combination for increased safety – in addition to the personal air monitors carried on the body, these area monitors are positioned where gas hazards are expected.

### Clear warning

Even from a distance, the illuminated green LED ring indicates that the air is free of toxic and combustible gases. Upon detection of gas hazards, the LED color changes from green to red, thus providing a clear visual warning that gas is present. Additionally, a loud and highly audible evacuation alarm is emitted. The Dräger X-zone 5500 gas entry is located that the gas can diffuse into the Dräger X-am 5000, 5100 or 5600 from all sides.

### Wireless fence line

Up to 25 Dräger X-Zone 5500 can be automatically interconnected to form a wireless fence line. The interconnection of the area monitoring devices allows for rapid establishment of safety networks for larger areas. A Dräger X-zone 5500 detecting a gas alarm transmits the alarm signal to all interconnected units. A red flashing master alarm in the mother unit detecting gas contrasts with red/green flashing alarms of the connected daughter units providing simple recognition of alarm status and the actual location of the hazard.

With the corresponding configuration, the maximum gas concentration in the monitored area is shown on the display. Combined with the display of the X-zone ID a clear containment of the hazard area is possible.

### Continuous operation for up to 120 hours

The 24 Ah battery of the Dräger X-zone 5500 provides up to 120 hours of continuous operation – a complete working week.

### Other benefits

- 360° gas entry
- approval for Ex-Zone 0 (with Switch On or Switch Off for Ex-Zone 1)
- daily function test and calibration not required after single on-site testing
- individually configurable with the Dräger CC-Vision PC software (e.g. alarm frequency)
- inductive charging station: easy and convenient non-contact charging

### Data interface modus

- Integration in a control room system
- Connection to external displays, such as Dräger RVP 5000

### Simply connected - informed everywhere

The new Dräger X-zone® 5500 with X-zone Com GSM module, sends all data and alarms to your location – by email, SMS and to the Cloud.

### The more secure type of area monitoring

Time, place and gas concentration are the most important data in the event of a gas leak. In an emergency, every second counts. Therefore we have developed a more efficient and significantly safer type of area monitoring with the Dräger X-zone 5500, including X-zone Com. With these you can receive and view the measured data and alarms outside of the danger zone.

### The new x-zone com GSM-module

This module allows you to access the Dräger X-zone 5500 data wirelessly over the GSM network. Be it status requests or alerts via SMS using a periodic delivery of data via e-mail to a FTP server or a cloud service – the X-zone Com GSM module sends all data directly to the device of your choice. In combination with an X-zone Com up to 15 Dräger X-zone can automatically connect themselves to a wireless alarmchain to accurately and comprehensively monitor large areas. For this only a single X-zone Com is required to retransmit the data of the entire chain. All relevant information such as maximum values of the measured gas type will reach those responsible within seconds.



# Dräger X-Zone 5500

## Additional functions

On the laptop data of the Dräger X-zone 5500 group can also be displayed via Bluetooth®. With the integrated GPS module, the position of the X-zone Com and thus the location of the hazard source is transmitted. A data logger continuously stores the measured

values. This ensures that no data is lost. Analysis of trends are simply in the cloud possible. Thus, all important measures covering evacuation and protection as well as the elimination of the problem and the resumption of work can be implemented quickly, efficiently and, above all, safer.

## TECHNICAL SPECIFICATIONS

Dimensions	490 x 300 x 300 mm
Weight	10 kg (24 Ah battery)
Temperature	Max +40°C
Pressure	700 to 1,300 hPa
Humidity	10 to 95 % r.h.
Ingress protection	IP 67
Alarm	Visual 360° LED (illuminated ring) Audible 360°; > 108 dB in a distance of 1 m (30 ft.), 120 dB in a distance of 30 cm (1 ft.) Configurable alarm patterns, frequencies and volumes
Life signal	Green status display (360°), illuminated ring (LED)
Operating time	Approx. 120 h (24 Ah battery) Depending on sensor equipment / configuration of the life signal
Charging times	Approx. 14 h Flexible power supply: External 100 – 240 V charger (worldwide) or inductive wireless charger
Alarm output	Potential-free alarm contact for intrinsically safe circuits (6-pole); < 30 V to 0.25 A (0.15 A constant current), resisting load
Radio transmission	Worldwide license-free ISM frequencies Digital radio, robust and interference-free transmission up to 100 m
Approvals	ATEX: I M1 Ex ia I Ma II 1G Ex ia IIC T3 Ga II 2G Ex ia d IIC T4 Gb IECEX: Ex ia IIC T3 Ga Ex ia d IIC T4 Gb Ex ia I Ma CSA/US: Class I, zone 0, AEx ia IIC T3 Ga (Approval pending) Class I, zone 1, AEx ia d IIC T4 Gb

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-zone® 5500, 868 MHz, 24 Ah battery with diffusion cap	1	8324819
Dräger X-zone® 5500 with integrated pump, 868 MHz, 24 Ah battery with diffusion and pump cap	1	8324821

## Dräger X-am® pump

The Dräger X-am® pump is an external pump for the portable gas detectors Dräger X-am® 2500, 5000, and 5600 – designed for clearance measurement, for example in tanks and shafts. The pump automatically switches on when it is connected to a running X-am® device. The change from pump mode to diffusion mode is fast and easy.



**Dräger X-am® Pump**  
For Dräger X-am® 2500, 5000 and 5600

### Easy to use

The pump is attached onto the X-am 2500/5000/5600 and fastened with a clip. Pumping starts automatically once pump and running gas detection device are connected. The pump turns off automatically once it is removed from the device. Using the X-am with the pump has no effect on the measuring performance for standard gases.

### Charging via USB

The pump battery can be recharged using the micro USB port. A standard cellphone charger can be used for connecting. The charge status is indicated by an LED on the pump. A full charge requires approximately six hours.

### Handy and robust

The pump's easily manageable 17.5 cm device height and a weight of only 200 g permit easy carrying and stowage. The Dräger X-am pump is dust and water resistant according to the IP67 protection classification. It performs reliably even at temperatures down to -40 °C. The battery is solid cast to protect against damage due to dropping or impact.

### Effective range of measuring results: with explosion protection

The pump can reach the ambient atmosphere in inaccessible places – up to a distance of 45 m, e.g. in channels, shafts, or

tank systems. The pump has been optimised for hoses with a diameter of 3 mm – for fast response times and low power consumption. The use of the pump in combination with a X-am device ensures you of consistently precise measuring results – even in the most demanding situations. Because the pump has an explosion protection approval for Ex zone 0. In combination with the Dräger X-am 2500/5000/5600, which are likewise approved for Ex zone 0, the X-am pump allows for secure and continuous monitoring of enclosed areas.

### Long operating time for long deployments

The pump is not only highly resilient on the outside but also inside. The battery capacity lasts for three workweeks at 8 measurements per day (i.e. up to 20 hours of continuous operation). Convenient: The operating time of the X-am is not decreased when the pump is in operation. Moreover, the entire pump operating time can be evaluated using CC-vision software.

### Data logger

Pump operating time, charge status, battery warnings, and flow alarm are displayed on the Dräger X-am and stored in the data logger. This makes it possible to display the results of the clearance measurements separate from the evaluations of personal monitoring.

## TECHNICAL SPECIFICATIONS

Dimensions	67 x 175 x 38 mm (without X-am®), 67 x 220 x 55 mm (with X-am®)
Weight	approx. 200 g
Operating temperature	-20 °C to 50 °C (briefly -40 °C)
Temperature when charging	0 – 35 °C
Charging time	< 6 hours
Operating time	up to 20 hours, depending on type of application and temperature
Maximum hose length	45 m
Air flow volume	0.4 L/min
Storage temperature	Up to 1 month -20 °C to 60 °C, otherwise -20 °C to 45 °C
Pressure	700 to 1,300 hPa

# Dräger X-am® pump

Air humidity	0 to 95 % RH
IP protection class	IP67
Approvals	c CSA us, ATEX/IECEX (Zone 0 T4 and M1), DNV-GL, CE label

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-am pump	1	8327100
Dräger X-am pump incl. USB charger and shoulder strap	1	8327115
USB power supply	1	8327102
Shoulder strap	1	8319386
Leather case for Dräger X-am® pump	1	8327103
Case for Dräger X-am® pump	1	8327104
CSE set Dräger X-am® pump, for remote measurement	1	8327105
Dräger X-am® 2500 CSE-Kit, for remote measurement	1	8327106
USB 10x multi-charger	1	8327113
Filter for fresh air pump inlet for X-am 1/2/5x00	1	8319364
Telescopic probe ES 150	1	8316533
Float probe	1	8327654
5 m FKM hose (diameter 3 mm)	1	8325705

# Dräger Bump Test Station

Easy to use, stand-alone and portable. With the Bump Test Station, functionality tests of gas detection and warning devices can be carried out easily and quickly.



## Dräger Bump Test Station

Reliable and accurate detection

### Easy to use

The Bump Test Station has no requirement of any power source and can thus be used at any location. The easy to use Bump Test Station checks whether the instrument in question is responding to a known concentration of gas. The gas provided by the Bump Test Station flows through the dust and water filter to the sensor(s) confirming correct functionality of the gas detector ensuring compliance with country-specific requirements and regulations, standards, recommendations, etc.

### Reliable results

To test the device using a known gas concentration is the only way to guarantee a reliable, precise measurement and functionality against a gas hazard and to ensure correct warnings against them.

### Automatic calibration

If the test is not completed successfully, the device has to be adjusted/calibrated. This calibration is capable of being carried out automatically on the Bump Test Station.

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger bump test station for X-am 1/2/5x00, including test cylinder	1	8319130
Dräger bump test station for X-am 2/5/5X00, excluding test cylinder	1	8319131
Dräger bump test station for X-am 7000, excluding test cylinder	1	8318909
Dräger bump test station for X-am 7000, including calibration gas cilinder 58 liters	1	8319072
Dräger bump test station for PAC serie	1	8317410

# Dräger Mobile Printer

The Dräger Mobile Printer prints breath alcohol and drug test measurement results without using a dedicated power supply. The Mobile Printer documents measurement results of the Dräger the Dräger DrugTest® 5000.



## Dräger Mobile Printer

High-quality, long-term stable thermal paper

### Documenting results

The Dräger Mobile Printer documents measurement results of the Dräger Alcotest® 6810, the Dräger DrugTest® 5000 and the Dräger Bump Test Station.

### Wireless data transfer

Wireless data transmission from the Dräger Alcotest 6810 Dräger Mobile Printer is via an optical transmission. The Dräger DrugTest® 5000 utilises an IR interface for data transmission.

### Easy operation

The device is operated via a single button. Changing the paper is simple. In addition, the Dräger Mobile Printer uses heat transfer

printing technology, eliminating the need for ribbons or ink, ensuring low on-going running costs.

### Long-term stable printouts

High-quality, long-term stable thermal paper is used for printouts. The user can select between a paper with a long-term stability of 7 or 25 years.

### Flexible power supply

The Dräger Mobile Printer can be run with Alkaline or NiMH batteries.

### Data storage

For data storage, the device can be connected to a PC and a keyboard.

## TECHNICAL SPECIFICATIONS

Operating Temperature	-5°C to 45°C
Storage Temperature	-20°C to 50°C
Humidity	100%, not condensing
Atmospheric Pressure	600 to 1050 mbar
Dimensions	109 x 61 x 206 mm
Weight	0.45 kgs
Power supply	4 x 1.5V alkaline (AA) batteries

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger mobile printer	1	8319310
Paper, thermal, 7 years shelf-life, 5 pieces	1	8319002
PC connection cable with mini USB	1	8318857
Network adapter	1	8319348
Batteries		1890092

## Dräger X-dock®



### Dräger X-dock

Provides you with full control of your portable Dräger gas detection instruments.

The Dräger X-dock series provides you with full control of your portable Dräger gas detection instruments. Automatic bump tests and calibrations with reduced test gas consumption and short testing times save time and money. Comprehensive documentation and evaluations provide you with a clear overview.

#### As versatile as your requirements

The X-dock is available in a wide variety of versions. The X-dock 5300 includes a master station including a module for a gas detection instrument from the X-am 1/2/5x00 or Pac family. It is immediately ready to use. The X-dock 6300 and 6600 versions can be configured freely. They consist of a master station and can be expanded with up to 10 modules for X-am 1/2/5x00 and/or Pac 1 gas detection instruments.

#### Easier than ever before

Insert the device, close the lid and remove it when the indicator goes "green" – a test with the X-dock is just that simple. It immediately detects all sensor combinations. Furthermore, the X-dock automatically tests and adjusts when all required test gases are connected. The station works independently and can be configured and used without a PC. The station is operated via an integrated touchscreen. A gas detection instrument is detected as soon as it is inserted, and all data is documented in the database.

#### More safety thanks to complete documentation

Do you need to document whether or not your devices are ready for operation? Who tested which device when, and what the result was? The X-dock stores all of the relevant data and reads the collected information from the gas detection instruments for subsequent evaluations – providing you with complete control every step of the way. You can use the reporting function (report wizard) to create customised reports. Furthermore, you can print a calibration certificate right at the stations, since the X-dock series supports standard PostScript-compatible USB printers. This functionality allows the user to manage all requirements of EN 60079-29-1 and EN 60079-29-2.

#### Automatically reduced costs

With a reduced gas flow (300 mL/min instead of 500 mL/min) per module, you save costs on test gases. Short testing times reduce the overall maintenance efforts. The valve concept (patent pending) requires one

pump only, resulting in the need for less wear and tear parts. The valves automatically switch the test gases and – when connected – the compressed air as well.

#### Significant time savings

Up to 10 modules can be connected to the X-dock at any given time, allowing you to test gas detection instruments simultaneously but also independently of each other. The automatic bump test also saves time, because the test only takes 8 to 15 seconds. All Dräger test gas cylinders are already stored in the database – entering the part number will automatically fill in the fields required for the gas configuration. This eliminates the need for manual data entry.

#### Overview of results

The additional "X-dock Manager" software offers you even more comfort: It produces a detailed evaluation of the data in the calibration system and gas detection instruments, and presents the information in various graphics and statistics – providing you with a complete overview of all results. All connected X-dock systems can be connected in one network. Therefore, the data is not only stored locally in the system, but in a central database as well. With the X-dock manager you are always in control.

#### Further benefits

- Touchscreen operation at the master station
- Up to three configurable test routines
- Automatic leak tests
- Automatic tests of alarm elements (acoustic, visual and vibration alarms)
- Optional charging function for X-am 1/2/5x00
- Replaceable seal cartridge
- 12V operation (e.g. in vehicles) possible
- Can be subsequently expanded with up to 10 modules (X-dock 6300/6600)
- Evaluation of sensor response time

#### The X-dock manager offers much more

- Gas exposure in specific areas, number of conducted tests, device availability, overview of created and sent reports
- Templates for regular reports

## Dräger X-dock®

- An issue and return function to allocate gas detection instruments to specific individuals
- Monitoring of stations within the network: All connected systems can be monitored (e.g. information on the gas configuration)
- Overview of devices: direct access to test reports and device configuration
- Notifications, also via email, e.g. if test gases are running out
- VLAN capable

### TECHNICAL SPECIFICATIONS

Operating Temperature	-5°C to 45°C
Storage Temperature	-20°C to 50°C
Humidity	100%, not condensing
Atmospheric Pressure	600 to 1050 mbar
Dimensions	109 x 61 x 206 mm
Weight	0.45 kgs
Power supply	4 x 1.5V alkaline (AA) batteries

### ORDER INFORMATION

Description	Unit Sales	Articlenr
<b>Ready to use</b>		
Dräger X-dock 5300 X-am 1/2/5, 3 gas connections, limited to one module, including adapter	1	8321880
Dräger X-dock 5300 PAC 1/2/5, 3 test gas connections, limited to one module, including charger	1	8321881
<b>Master versions</b>		
Dräger X-dock 6300 Master, 3 test gas connections, can be expanded to 10 modules	1	8321900
Dräger X-dock 6600 Master, 6 test gas connections, can be expanded to 10 modules	1	8321901
<b>Modular versions</b>		
Dräger X-dock module X-am 1/2/5	1	8321890
Dräger X-dock module X-am 1/2/5+, allowing charging X-am 1/2/5 devices	1	8321891
Dräger X-dock module PAC	1	8321892
<b>X-dock Manager</b>		
Dräger X-dock manager standard	1	8321860
Dräger X-dock manager professional, standard functions plus instrument handout and return function and reporting centre	1	8321870
Additional licence for Dräger X-dock managers (both versions)	1	8321857
5 additional licences for Dräger X-dock managers (both versions)	1	8321858

## Dräger E-cal

Check, control and calibration of portable gas measuring devices at any time: Dräger E-Cal, the automatic test and calibration system is made for it.



### Dräger E-cal

Optimum protection and performance

#### Reduce costs, expenditure & downtime

Dräger E-Cal, the automatic test and calibration system, can include up to ten different device modules. As the calibration and adjustment of the Dräger measuring instruments can be carried out simultaneously, the devices can be maintained and serviced effectively in terms of time and cost.

#### Modern instrument management

In addition to the device modules, the modular design of the Dräger E-Cal also includes a Master Station, this is the control center of the

system and allows communication to the PC and switching between different gases.

#### Optimum protection and performance

Using the Dräger E-Cal for regular maintenance and servicing as well as for calibration tasks ensures that the Dräger measuring instruments function properly at all times. This ensures optimum protection and performance of the instruments.

#### Central database

A central database of calibrations, which is stored on the PC, provides the capability of analysing and documenting data at any time.

### ORDER INFORMATION

Description	Unit Sales	Articlenr
<b>Dräger E-cal Hoofd Stations</b>		
(incl. Dräger CC Vision E-Cal, main dapter and accessories for connection of up to 10 modules)		
Master Station 6 USB (for up to 6 gases)	1	8316456
Master Station 12 USB (for up to 12 gases)	1	8316412
<b>Modules (incl. accessories)</b>		
E-Cal instrument module for connection of 4 Dräger Pac 1000 to 7000 to a Dräger E-Cal Master Station or to Module Adapter	1	8318589
Dräger PAC Ex 2 Module	1	8316539
Dräger X-am 1/2/5000 E-cal Module	1	8318754
Dräger X-am 7000 E-cal Module	1	8317705
Complete list of accessoires is available via our sales department		



## Calibration gas

Calibration of equipment will ensure safe operation and functionality of equipment and will also meet with the applicable regulations and codes of practice. Various calibration options are available to provide this facility.



### Single gas and mixtures of reliable quality

Dräger provides single gases and gas mixtures of reliable, constant quality. These are available in a range of different size cylinders.

### Recyclable cylinders

The gases are supplied in small, light and recyclable disposable cylinders. Therefore,

calibration tasks and function tests can easily be carried out in the workshop or on site.

### Tailor-made for Dräger gas measuring devices

The Dräger calibration gases are specifically tailored to meet the requirements of the range of gas measuring devices.

### Calibration gas

Calibration of equipment will ensure safe operation and functionality of equipment

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Calibration gas 60 liter cylinder, 57% LEL CH <sub>4</sub> , 100 ppm CO, 15 PPM H <sub>2</sub> S, 17% O <sub>2</sub> , N <sub>2</sub> 58 L 24 months	1	6811130
Calibration gas 122 liter cylinder, 57% LEL CH <sub>4</sub> , 100 ppm CO, 15 PPM H <sub>2</sub> S, 17% O <sub>2</sub> , N <sub>2</sub> 116 L 24 months	1	6812375
Calibration gas 103 liter cylinder 2,2 VOL% CH <sub>4</sub> , 18 VOL% O <sub>2</sub>	1	3801411
Calibration gas 60 liter cylinder 2,2 VOL% CH <sub>4</sub> , 18 VOL% O <sub>2</sub> , 25 ppm H <sub>2</sub> S	1	3811126
Calibration gas 58 liter cylinder 2,2Vol% Ch <sub>4</sub> -18Vol% O <sub>2</sub> -25ppm H <sub>2</sub> S/N <sub>2</sub>	1	3810030
Calibration gas 112 liter VOL% H <sub>2</sub>	1	6810388
Calibration gas 60 liter 2,5 VOL% CO <sub>2</sub>	1	6810391
Calibration gas 60 liter 20 PPM H <sub>2</sub> S	1	6810393
Calibration gas 112 liter 99 VOL% N <sub>2</sub>	1	6810394
Calibration gas 60 liter 50 PPM NH <sub>3</sub>	1	6811352

## Dräger Accuro®

Measurements are often taken under extreme conditions: on ladders, in shafts, at spots difficult to access, often with additional respiratory protection. For your own safety, one hand must always remain free. Accuro® is robust, inexpensive and easy to service, and can be operated single-handedly.



### Dräger Accuro®

Robust, inexpensive and easy to service

#### Safety management with one single hand

Often measurements need to be done in difficult areas. For those kind of situations the Dräger Accuro is the perfect measurement tool.

#### The Dräger tube

The Dräger-Tube system is an established method for measuring and detecting contaminants in the soil, water and air. Today we distinguish between short-term detector tubes, long-term detector tubes and long-term measurement systems. Short-term detector tubes require anything from 10 seconds to 15 minutes. Long-term tubes perform measurements in 0.5 to 8 hours. Among the long-term measurement systems are the

direct-reading diffusion tubes and badges whose measurement process does not require a gas detection pump. Sampling tubes are used when the user has no knowledge of the hazardous substance composition.

#### Applications

They can be used in an extremely wide range of applications, from the monitoring of workplaces and living areas, ventilation systems or emission sources, to process control and quality control. Dräger-Tubes are kept current at all times through the continuous development and rapid adaptation to new legal requirements such as limit values, as well as research into new detection techniques.

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Accuro	1	6400000
Dräger Accuro adapter	1	6400076
Dräger Accuro extension hose: 3 meter	1	6400077
Dräger Accuro extension hose: 10 meter	1	6400078
Dräger Accuro extension hose: 15 meter	1	6400079
Dräger Accuro soft side kit (in carrying case)	1	8317186

## Dräger X-act® 5000

The automatic tube pump Dräger X-act 5000 is the first all-in-one solution designed for measurements with Dräger short-term tubes and for sampling tubes and systems. Ease of operation and a high degree of reliability compliment the measurement and sampling of gases, vapors and aerosols.



**Dräger X-act® 5000**  
Versatile and robust

### Versatile and robust

The Dräger X-act 5000 introduces a new era of gas measurement: Only one device is necessary for measuring and sampling. The automatic tube pump is compatible with Dräger short-term tubes as well as sampling tubes and systems. The robust housing supports the use of the pump to perform the daily measuring tasks under tough conditions. The IS approved (pending) Dräger X-act 5000 can be used for confined space applications and in explosive gas atmospheres.

### New pump concept

The key principle is the ability to provide the required flow characteristics of the Dräger Short-term Tubes, while also providing the option to be used with Sampling Tubes and Systems requiring constant flow. Compared to the Dräger accuro hand pump, this new concept reduces the average measurement time of the Dräger Short-term Tubes in case of a high number of strokes. The internal pump is also designed to use extension hoses up to a length of 30 meters (98 ft.).

### Simplicity of operation

The handling of gases, vapors and aerosols has never been easier. The automatic tube pump Dräger X-act 5000 directs the air to be measured through the appropriate Dräger-Tubes effortlessly. It is comfortably carried with one hand or using the shoulder strap and is easily operated, even wearing protective gloves. A simple and intuitive menu structure provides the user efficient operation with just a few button presses. Using the password-protected menu repetitive operating modes can be set.

### Automatic transfer of measurement parameters

A barcode printed on the label on the backside of a Dräger Short-term Tube box contains all relevant measurement parameters. Simply sliding the barcode over the barcode reader of the pump, automatically transfers the name of the substance to be measured, the number of strokes, and the measuring range to the display. The required steps to carry out the measurement are simplified with the Dräger X-act 5000 and the possibility of making an error is reduced to a minimum.

### Measurement in technical gases

To evaluate measurements in technical gases, the properties of the technical gas must be taken into consideration. Technical gases have a different viscosity than ambient air. Therefore, the flow of the pump must be set accordingly. Following the operating steps in the mode „Measurement in Technical Gases“, the Dräger X-act 5000 will automatically be adjusted to the required flow parameter and the measurement result can be read directly.

### Direct settings for sampling

Depending on the Sampling Tubes or Systems, the required parameters for the test can be set directly, without the need for an external flow meter. The Dräger X-act 5000 automatically adjusts the flow rate. After setting the sampling time the pump can immediately be started. At the end of the measurement the pump will stop automatically. The set data, the elapsed time and the pumped volume will be indicated on the display.

## TECHNICAL SPECIFICATIONS

Short-term measurements, number of strokes	adjustable, 1 to 199 strokes
Short-term measurements, stroke volume	100 ml
Flow rate range, sample taking	0.1 to 2.0 L/min Resolution 0.1 to 1.0 L/min: 0.1 L/min ± 5% Resolution 1.0 to 2.0 L/min: 0.2 L/min ± 5%

## Dräger X-act® 5000

Sampling time	adjustable, up to 12 hours, depending on flow rate Resolution in steps of 15 minutes (default) or 1 minute
Display	Two parts: segment and matrix
Menu languages	Danish, Dutch, English, Finnish, French, German, Italian, Norwegian, Polish, Spanish, Swedish
Use of extension hose	up to 30 meter (98 ft.)
Dimensions (H x W x D)	approx. 175 x 230 x 108 mm (7" x 9" x 4.25")
Weight (without battery pack)	approx. 1.6 kg (3.5 lbs)
Temperature during storage	-20 to 55 °C (-4 to 131 °F)
Temperature during operation	5 to 40 °C (41 to 104 °F)
Humidity	0 to 95% r. h., non-condensing
Pressure	700 to 1300 hPa (10.2 to 18.9 psi)
Approvals	ATEX: Ex ia IIC T4 Ga, Ex ia I Ma, I M 1 / II 1G MED: Steering Wheel approval 96/98 EC UL: Class I, Div. 1, Group A, B, C, D, Class II, Div. 1, Group F, G, 5 °C ≤ Ta ≤ + 40 °C Temp. Code T4 Ex ia cUL: Class I, Div. 1, Group A, B, C, D, Class II, Div. 1, Group F, G, 5 °C ≤ Ta ≤ + 40 °C Temp. Code T4 Ex ia IECEX: Ex ia IIC T4 Ga CE-mark: according to 2004/108/EC and 94/9/EC

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-act® 5000, shoulderstrap without power supply	1	4523500
NiMH accu, T4 (rechargeable)	1	4523520
Alkaline Battery Pack, T4 w/o Batteries (6 batteries required)	1	4523525
Wall-Wart Charger 100 – 240 VAC (worldwide)	1	4523545

# Dräger Tubes

Tried and tested a million times: worldwide, the Dräger short-term detector tubes have proven to be a very cost-effective and reliable way for the measurement of gas.



## What is the Dräger Tube® system?

Dräger Tubes are glass vials filled with a chemical reagent that reacts to a specific chemical or family of chemicals. A calibrated 100 ml sample of air is drawn through the tube with the Dräger Accuro® bellows pump. If the targeted chemical(s) is present the reagent in the tube changes color and the length of the color change typically indicates the measured concentration. The Dräger Tubes System is the world's most popular form of gas detection.

## Fast and reliable measuring

More than 200 different Dräger-tubes are available make spot measurements for over 500 gases and vapors.

## Easy to use

The short-term Dräger tubes are employed manually together with the Dräger Accuro gas detection pump or automatically together with the pump Accuro 2000 or the compact microprocessor-controlled Quantimeter 1000.

## Field applications

A great number of different gases and vapors can be measured by the short-term Dräger tubes. These tubes are used e.g. for the determination of concentration peaks, the measurement of exposures in the inhalation area, the determination of possible leakages as well as for the analysis of air in sewers, shafts, tanks or other confined spaces.

## Dräger Tubes

Fast and reliable measuring

## ORDER INFORMATION

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: Acetaldehyde 100/a	100-1000 ppm	5	10 per box	6726665
Dräger tube: Acetic acid 5/a	5-8 ppm	30 s	10 per box	6722101
Dräger tube: Acetone 40/a	400-800 ppm	1	10 per box	8103381
Dräger tube: Acetone 100/b	100-12000 ppm	4	10 per box	CH22901
Dräger tube: Acid Test	qualitative	3 s	10 per box	8101121
Dräger tube: Acrylonitrile 0.2/a	0.2-4 ppm 5-50 ppm		10 per box	8103701
Activation tube for formaldehyde 0,2/a			10 per box	8101141
Dräger tube: Alcohol 100/a	100-3000 ppm	1,5	10 per box	8103761
Dräger tube: Alcotest 0.5 promille			10 per box	CH00222
Dräger tube: DT Methanol 25/a	20-5000 ppm	2	10 per box	8103801
Dräger tube: Amine test	qualitative	5 s	10 per box	8101061
Dräger tube: Ammonia 0,25/a	0,25-3 ppm	1	10 per box	8101711
Dräger tube: Ammonia 0,5%/a	0,5-10 Vol.-%	20 s	10 per box	CH31901
Dräger tube: Ammonia 2/a	2-30 ppm	1	10 per box	6733231
Dräger tube: Ammonia 5/a	5-70 ppm 50-700 ppm	6 s	10 per box	CH20501
Dräger tube: Ammonia 5/b	5-100 ppm	10 s	10 per box	8101941
Dräger tube: Ammonia 20/a-d	2.5-1500 ppm	10 s	10 per box	8101301
Dräger tube: Aniline 0,5/a	0,5-10 ppm	4	10 per box	6733171
Dräger tube: Aniline 5/a	1-20 ppm	3	10 per box	CH20401
Dräger tube: Arsine 0,05/a	0,05-3 ppm	6	10 per box	CH25001
Dräger tube: Benzene 0,5/a	0,25-3 ppm	15	10 per box	8103691
Dräger tube: Benzene 1/a	0,5-3 ppm	15	10 per box	8103641

## Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: DT Benzene 0,25/a	0,25-2 ppm 2-10 ppm	5 1	10 per box	8103691
Dräger tube: Benzene 2/a	2-60 ppm	8	5 per box	8101231
Dräger tube: Benzene 5/a	5-40 ppm	3	10 per box	6718801
Dräger tube: Benzene 15/a	15-420 ppm	4	10 per box	8101741
Dräger tube: Benzene 5/b	5-50 ppm	8	10 per box	6728071
Dräger tube: Benzene prefilter			1 per box	8103511
Dräger tube: Butadiene 10/a-d	10-300 ppm		10 per box	8101161
Dräger tube: DS PRB N-Butanol 10/a	10-250 ppm 250-2.000 ppm		10 per box	8103861
Dräger tube: Carbon dioxide 0,1%/a	0,5-6 Vol.-%	30 s	10 per box	CH23501
Dräger tube: Carbon dioxide 0,5%/a	0,5-10 Vol.-%	30 s	10 per box	CH31401
Dräger tube: Carbon dioxide 1%/a	1-20 Vol.-%	30 s	10 per box	CH25101
Dräger tube: Carbon dioxide 100/a	100-3000 ppm	4	10 per box	8101811
Dräger tube: Carbon dioxide 5%/a	5-60 Vol.-%	2	10 per box	CH20301
Dräger tube: Carbon disulphide 3/a	3-95 ppm	2	10 per box	8101891
Dräger tube: Carbon disulphide 5/a	5-60 ppm	3	10 per box	6728351
Dräger tube: Carbon monoxide 2/a	2-60 ppm	4	10 per box	6733051
Dräger tube: Carbon monoxide 8/a	8-150 ppm	2	10 per box	CH19701
Dräger tube: Carbon monoxide 0,3%/b	0,3-7 Vol.-%	30 s	10 per box	CH29901
Dräger tube: Carbon monoxide 5/c	100-700 ppm	50 s	10 per box	CH25601
Dräger tube: Carbon monoxide 10/b	10-250 ppm	1,5	10 per box	CH20601
Dräger tube: Carbon preset tubes				CH24101
Dräger tube: Carbon tetrachloride 0,1/a	0,1-5 ppm	8	10 per box	8103501
Dräger tube: Carbon tetrachloride 1/a	1-15 ppm	6	10 per box	8101021
Dräger tube: Chlorine 0,2/a	0,2-3 ppm	3	10 per box	CH24301
Dräger tube: Chlorine 0,3/b	0,3-5 ppm	8	10 per box	6728411
Dräger tube: Chlorobenzene 5/a	5-200 ppm	3	5 per box	6728761
Dräger tube: Chlorodioxide 0,025/a	0,025-10 ppm	10	10 per box	8103491
Dräger tube: Chloroform 2/a	2-10 ppm	9	5 per box	6728861
Dräger tube: Chloroformates 0,2/b	0,2-10 ppm	3	10 per box	6718601
Dräger tube: Chloropicrine 0,1/a	0,1-2 ppm	8	10 per box	8103421
Dräger tube: Chloroprene 5/a	5-60 ppm	3	10 per box	6718901
Dräger tube: Cyanide 2/a	2-15 mg/m <sup>3</sup>	2,5	10 per box	6728791
Dräger tube: Cyclohexane 40/a	40-200 ppm 300-3000 ppm	75 15	10 per box	8103671
Dräger tube: Chromic acid 0,1/a	0,1-0,5 mg/m <sup>3</sup>	8	9 per box	6728681
Dräger tube: Diesel Fuel	25-200 mg/m <sup>3</sup>	3	10 per box	8103475
Dräger tube: Diethyl ether 100/a	100-4000 ppm	3	10 per box	6730501
Dräger tube: Dimethyl sulphate 0,005/c	0,005-0,05 ppm	50	9 per box	6718701
Dräger tube: Dimethyl sulphide 1/a	1-15 ppm	15	5 per box	6728451
Dräger tube: Dimethyl formamide 10/b	10-40 ppm	3	10 per box	6718501
Dräger tube: Epichlorohydrin 5/b	5-50 ppm	8	10 per box	6728111
Dräger tube: Ethyl acetate 200/a	200-3 000 ppm	5	10 per box	CH20201
Dräger tube: Ethyl benzene 30/a	30-400 ppm	2	10 per box	6728381
Dräger tube: Ethyl glycol acetate 50/a	50-700 ppm	3	10 per box	6726801
Dräger tube: Ethylene 0,1/a	0,2-5 ppm	30	5 per box	8101331
Dräger tube: Ethylene 50/a	50-2 500 ppm	4	10 per box	6728051
Dräger tube: Ethylene glycol 10/a	10-180 mg/m <sup>3</sup>	7	5 per box	8101351

# Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: Ethylene oxide 1/a	1-15 ppm	8	5 per box	6728961
Dräger tube: Ethylene oxide 25/a	25-500 ppm	6	10 per box	6728241
Dräger tube: Formaldehyde 0,2/a	0,5-5 ppm	1,5	10 per box	6733081
Dräger tube: Formaldehyde 2/a	2-40 ppm	30 s	10 per box	8101751
Dräger tube: Formic acid 1/a	1-5 ppm	3	10 per box	6722701
Dräger tube: Petroleum Hydrocarbons 100/a	100-2500 ppm	30 s	10 per box	6730201
Dräger tube: Halogenated Hydrocarbons 100/a	100-2600 ppm	1	8 per box	8101601
Dräger tube: Hexane 10/a	10-200 ppm 300-2500 ppm	3	10 per box	8103681
Dräger tube: Hydrazine 0,01/a	0,01-0,4 ppm 0,5-6 ppm		10 per box	8103351
Dräger tube: Hydrazine 0,25/a	0,25-10 ppm	1	10 per box	CH31801
Dräger tube: Hydrocarbons 2/a	2-24 mg/m <sup>3</sup>	5	10 per box	8103581
Dräger tube: Hydrocarbon 0,1%/c	0,1-1,3 Vol.-%Propane 0,1-1,3 Vol.-%Butane 0,1-1,3 Vol.-%mix 1:1		10 per box	8103571
Dräger tube: Hydrochloric/Nitric acid			10 per box	8101681
Dräger tube: Hydrochloric acid 0,2/a	0,2-3 ppm	2	10 per box	8103481
Dräger tube: Hydrochloric acid 1/a	1-10 ppm	2	10 per box	CH29501
Dräger tube: Hydrochloric acid 50/a	500-5000 ppm	30 s	10 per box	6728181
Dräger tube: Hydrogen acid 0,2%/a	0,2-2,0 Vol.-%	1	10 per box	8101511
Dräger tube: Hydrogen acid 0,5%/a	0,5-3,0 Vol.-%	1	10 per box	CH30901
Dräger tube: Hydrogen fluoride 0,5/a	0,5-15 ppm 10-90 ppm	2 25 s	10 per box	8103251
Dräger tube: Hydrogen fluoride 1,5/b	1,5-15 ppm	2	10 per box	CH30301
Dräger tube: Hydrogen peroxide 0,1/a	0,1-3 ppm	3	10 per box	8101041
Dräger tube: Hydrogen sulphide + Sulphur dioxide 0,2%/a	0,2-7 Vol.-%	2	10 per box	CH28201
Dräger tube: Hydrogen sulphide 0,2%/a	0,2-7 Vol.-%	2	10 per box	CH28101
Dräger tube: Hydrogen sulphide 0,2/a	0,2-5 ppm	5	10 per box	8101461
Dräger tube: Hydrogen sulphide 0,2/b	0,2-6 ppm	55	10 per box	8101991
Dräger tube: Hydrogen sulphide 0,5/a	0,5-15 ppm	6	10 per box	6728041
Dräger tube: Hydrogen sulphide 1/c	10-200 ppm 1-20 ppm	20 s 3,5	10 per box	6719001
Dräger tube: Hydrogen sulphide 1/d	10-200 ppm 1-20 ppm	1 10	10 per box	8101831
Dräger tube: Hydrogen sulphide 100/a	100-2000 ppm	30 s	10 per box	CH29101
Dräger tube: Hydrogen sulphide 2%/a	2-40 Vol.-%	1	10 per box	8101211
Dräger tube: Hydrogen sulphide 2/a	20-200 ppm 2-20 ppm	20 s 3,5	10 per box	6728821
Dräger tube: Hydrogen sulphide 2/b	2-60 ppm	30 s	10 per box	8101961
Dräger tube: Hydrogen sulphide 5/b	5-60 ppm	4	10 per box	CH29801
Dräger tube: Mercaptan 0,1/a	0,1-2,5 ppm, 3-15 ppm	10	10 per box	8103281
Dräger tube: Mercaptan 0,5/a	0,5-5 ppm	5	10 per box	6728981
Dräger tube: Mercaptan 20/a	20-100 ppm	2,5	10 per box	8101871
Dräger tube: Mercury vapour 0,1/b	0,05-2 mg/m <sup>3</sup>	10	10 per box	CH23101
Dräger tube: Methyl acrylate 5/a	5-200 ppm	5	10 per box	6728161
Dräger tube: Methyl bromide 0,2/a	0,2-2 ppm 2-8 ppm	5 2	10 per box	8103391
Dräger tube: Methyl bromide 0,5/a	5-30 ppm	2	10 per box	8101671
Dräger tube: Methyl bromide 5/b	5-50 ppm	1	10 per box	CH27301

## Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: Methylene chloride 20/a	20-200 ppm	7	10 per box	8103591
Dräger tube: Natural gas test	qualitative	40 s	5 per box	CH20001
Dräger tube: Nickel tetracarbonyl 0,1/a	0,1-1 ppm	5	9 per box	CH19501
Dräger tube: Nitric acid1/a	5-50 ppm	2	10 per box	6728311
	1-15 ppm	4		
Dräger tube: Nitrogen dioxide 2/c	5-100 ppm	1	10 per box	6719101
	2-50 ppm	2		
Dräger tube: Nitrogen dioxide 0,1/a	0.1-30 ppm	1	10 per box	8103631
Dräger tube: Nitrous fumes 0.2/a	0.5-6 ppm		10 per box	8103661
Dräger tube: Nitrous fumes 2/a	5-100 ppm	1	10 per box	CH31001
	2-50 ppm	2		
Dräger tube: DR Nitrous fumes 50/b			10 per box	8101941
Dräger tube: Oil mist 1/a	1-10 mg/m <sup>3</sup>	25	10 per box	6733031
Dräger tube: Olefine 0,05%/a		5	10 per box	CH31201
-Propyleen	0,06-3,2 Vol.-%			
-Butyleen	0,04-2,4 Vol.-%			
Dräger tube: Oxygen 5%/b	5-23 Vol.-%	1	8 per box	6728081
Dräger tube: Oxygen 5%/c	5-23 Vol.-%	1	10 per box	8103261
Dräger tube: Ozone 0,05/b	0,05-0,7 ppm	3	10 per box	6733181
Dräger tube: Ozone 10/a	20-300 ppm	20 s	10 per box	CH21001
Dräger tube: Pentane 100/a	100-1 500 ppm	3	10 per box	6724701
Dräger tube: Perchloorethyleen 0,1/a	0,5-4 ppm	3	10 per box	8101551
	0,1-1 ppm	9		
Dräger tube: Perchloorethyleen 2/a	20-300 ppm	30 s	10 per box	8101501
	2-40 ppm	3		
Dräger tube: Perchloorethyleen 10/b	10-500 ppm	40 s	10 per box	CH30701
Dräger tube: Petroleum hydrocarbons 10/a	10-300 ppm	1	10 per box	8101691
Dräger tube: Petroleum hydrocarbons 100/a	100-2500 ppm	30 s	10 per box	6730201
Dräger tube: Phenol 1/b	1-20 ppm	5	10 per box	8101641
Dräger tube: Phosgene 0,02/a	0,02-1 ppm	6	10 per box	8101521
	0,02-0,6 ppm	12		
Dräger tube: Phosphine 0,01/a	0,1-1 ppm	2,5	10 per box	8101611
	0,01-0,3 ppm	8		
Dräger tube: Phosphine 0,1/b in Acetylene	1-15 ppm	20 s	10 per box	8103341
	0,11-1 ppm	4		
Dräger tube: Phosphine 0,1/c	0,1-1 ppm		10 per box	8103711
	0,5-3 ppm			
Dräger tube: Phosphine 1/a	20-100 ppm	2	10 per box	8101801
	1-20 ppm	10		
Dräger tube: Phosphine 50/a	50-1000 ppm	2	10 per box	CH21201
Dräger tube: Phosphoric acid ethers 0,05/a	0,05 ppm Dichloorvos	5	10 per box	6728461
Dräger tube: Polytest	qualitative	1,5	10 per box	CH28401
Dräger tube: PRB i-Propanol 50/a	50-4.000 ppm		10 per box	8103741
	10-200 ppm			
Dräger tube: Prussic Acid 0,5/a	0,5-5 ppm	2,5	10 per box	8103601
	5-50 ppm	30 s		
Dräger tube: Pyridine 5/a	5 ppm	20	10 per box	6728651
Dräger tube: Styrene 10/a	10-200 ppm	3	10 per box	6723301
Dräger tube: Styrene 10/b	10-250 ppm	3	10 per box	6733141
Dräger tube: Styrene 50/a	50-400 ppm	2	10 per box	CH27601
Dräger tube: Sulphur dioxide 0,1/a	0,1-3 ppm	20	10 per box	6727101



# Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: Sulphur dioxide 0,5/a	1-25 ppm	3	10 per box	6728491
Dräger tube: Sulphur dioxide 1/a	1-25 ppm	3	10 per box	CH31701
Dräger tube: Sulphur dioxide 20/a	20-200 ppm	3	10 per box	CH24201
Dräger tube: Sulphur dioxide 50/b	400-8000 ppm 50-500 ppm	15 s 3	10 per box	8101531
Dräger tube: Sulphuric acid 1/a	1-5 mg/m <sup>3</sup>	100	9 per box	6728781
Dräger tube: Tetrahydrothiophene 1/b	1-10 ppm	10	5 per box	8101341
Dräger tube: Toluene 100/a	100-1800 ppm	1,5	10 per box	8101731
Dräger tube: Toluene 5/b	50-300 ppm 5-80 ppm	1 5	10 per box	8101661
Dräger tube: Toluene 50/a	50-400 ppm	1,5	10 per box	8101701
Dräger tube: Toluene diisocyanate 0,02/a 50/a	0,02-0,2 ppm	20	9 per box	6724501
Dräger tube: Trichloroethane 50/d	50-600 ppm	2	5 per box	CH21101
Dräger tube: Trichloroethylene 2/a	20-250 ppm 2-50 ppm	1,5 2,5	10 per box	6728541
Dräger tube: Triethylamine 5/a	5-60 ppm	2	10 per box	6718401
Dräger tube: Vinyl chloride 0,5/b	5-30 ppm 0,5-5 ppm	30 s 3	10 per box	8101721
Dräger tube: Vinyl chloride 100/a	100-3000 ppm	4	10 per box	CH19601
Dräger tube: Water vapour 0,1	1-40 mg/L	2	10 per box	CH23401
Dräger tube: Water vapour 0,1/a	0,1-1,0 mg/L	1,5	10 per box	8101321
Dräger tube: Water vapour 1/b	20-40 mg/L 1-15 mg/L	20 s 40 s	10 per box	8101781
Dräger tube: Xylene 10/a	10-400 ppm	1	10 per box	6733161
Dräger tube: Simultaneous Test-Set I			1	8101735
Dräger tube: Simultaneous Test-Set II			1	8101736
Dräger tube: Simultaneous Test-Set III			1	8101770
Dräger: Tubes book English - edition 18 -			1	9092086
Dräger: Aerotest Carbon dioxide 100/a-P	100-3000 ppm	10	10 per box	6728521
Dräger: Aerotest Carbon monoxide 5/a-P	5 -150 ppm	10	10 per box	6728511
Dräger tube: Aerotest Oil 10/a-p	0,1-1 mg/m <sup>3</sup>	25	10 per box	6728371
Dräger: Aerotest Waterfog 20/A-P	20 -1500 mg/m <sup>3</sup>	10	10 per box	8103061
Dräger: Aerotest Water Vapour 5/a-p	5 -200 mg/m <sup>3</sup>		10 per box	6728531
Dräger Areotest: Impaktor	0,1-1 mg/m <sup>3</sup>	10	1	8103560
Dräger Aerotest: Adapter Impactor			1	8103557
Dräger Aerotest: Holder			1	CH07000

## Dräger Fumigation Test Kit

The Dräger-Tube® measurement system provides an easy method for testing containers and other spaces for the presence of fumigation agents. A specially developed measuring strategy allows for the detection of fumigants even when the chemical is unknown. The Dräger Fumigation Test Set can be equipped with all of the necessary components for this measurement.



### Dräger Fumigation Test Kit

Quick and easy way to determine whether a container has been fumigated

#### Hazards caused by fumigants

To prevent goods from being damaged by animals such as insects and other disease carriers, containers are flooded with toxic or suffocating gases.

Fumigants are highly toxic and harmful to the health in many ways. To ensure adequate protection, the concentration of the fumigants used must be measured.

#### Relevant for all personnel present during:

- the start or finish of the fumigation process
- the opening of transport containers or other confined spaces
- the loading or unloading of fumigated products from transport containers
- the removal of fumigated goods from packaging materials
- transportation (in case of leakages)

#### Determine the type and concentration of fumigants

Suitable measurement instruments are used to determine the type and concentration of fumigants before opening a container or entering other spaces. Thereby, it is important to check the Oxygen concentration in the container or other spaces. When inert gases have been used, they will displace Oxygen and this results in a very high probability of suffocation. A leakage in one individual package is one example of a relatively simple cause for this.

#### Mobile and quick

The well-known Dräger-Tube measuring method is an easy way to perform measurements. In only a few minutes, the concentration of the fumigants within the container can be determined. Depending on the concentration measured, the decision can be made whether the container or space can be entered or ventilated.

Even when a container has not been declared correctly or the labeling is no longer legible, the Dräger measuring strategy will assist in the identification and detection of the fumigation agents.

#### Easy to use

For several decades, Dräger-Tubes have been renowned for their ease of use and high degree of measurement accuracy. Even without special training, the Dräger Tubes, which were especially developed for this application, provide reliable test results. Dräger-Tubes are ready for use at any time. All that is needed are the corresponding tubes, the Dräger accuro® hand pump, and the Dräger bar probe. By comparing the color change within the detector tube to the printed scale, an estimation of the concentration can be made.

#### Recommended measurement strategy

If the fumigant is known, the corresponding Dräger-Tube is chosen and the measurement carried out as instructed. If the measurement result is too high, then the container or space should be ventilated. A new measurement should be taken at periodic intervals and, when the concentration is low enough, the container or room can be released for entry. If the concentration detected is below the defined maximum limit, the container or room can be opened and entered.

The measurement of fumigants should take place while the container is still closed. To do this, insert the Dräger Bar Probe (order code 83 17 188) e.g. through the rubber seal of the container door. The probe should be used to lift the rubber seal of the container at its lowest point and pushed as far as possible into the container. The Dräger-Tubes should then be prepared for measurement and attached to the bar probe. The necessary pump strokes for the measurement should then be made by using the Dräger gas detection pump.

If the fumigant is not known, the use of the Dräger Simultest Fumigation is recommended to determine which chemical has been used. This test set allows for the measurement of five typical fumigation agents at the same time:

# Dräger Fumigation Test Kit

Ammonia or Ethylene Oxide, Methyl Bromide, Hydrocyanic Acid, Phosphine and Formaldehyde.

### Use of Dräger Tubes

In addition, the following Dräger Tubes should be used for the measurement of Ethylene Oxide, Carbon Dioxide, and Sulfuryl Fluoride: Ethylene Oxide 1/a Measuring range from 1 to 15 ppm, Carbon Dioxide 0,1 %/a Measuring range from 0.1 to 1.2 Vol.-% and Sulfuryl Fluoride 1/a Measuring range from 1 to 5 ppm.

### Additional information

When one or more gases are present, the container or space should be ventilated with

air before entry and individual Dräger Tubes used to test the concentrations of the corresponding gases periodically.

If personnel should be equipped with personal air monitors for the measurement of Oxygen, Dräger offers a complete line of measurement and warning devices equipped with electrochemical sensors for this purpose. To determine a potential risk of explosion, Dräger measurement and warning devices equipped with an infrared Ex-sensor should be used. Gas detectors that use catalytic ex-sensors are not appropriate as they do not operate in inert atmospheres.

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Accuro	1	6400000
Bar Probe 400 for the measurement of fumigants in containers	1	8317188
Extension hose for Dräger accuro, 1 meter	1	6400561
Adapter Dräger Simultest, consisting of cutting holder and adapter	1	6400090
Spare parts set for Dräger accuro	1	6400220
Dräger tube: Ammonia 5/a	10 per box	CH20501
Dräger tube: DT Benzene 0.25/a	10 per box	8103691
Dräger tube: Carbon Dioxide 0.1%/a	10 per box	CH23501
Dräger tube: Chloropicrine 0.1/a	10 per box	8103421
Dräger tube: 1,2-Dichlorethane (using Dräger-Tube Methyl Bromide 0.2/a)	10 per box	8103391
Dräger tube: Ethylene Oxide 1/a	5 per box	6728961
Dräger tube: Oxygen 5%/C	10 per box	8103261
Dräger tube: Phosphine 0.01/a	10 per box	8101611
Dräger tube: Phosphine 0,1/c	10 per box	8103711
Dräger tube: Sulfuryl Fluoride 1/a	10 per box	8103471
Dräger tube: Toluene 5/b	10 per box	8101661

# Dräger Configuration and Evaluation Software

Save measurement results, professionally configure gas detection instruments and viewing performance data – all that is possible with the tailor-made Dräger software.



**Dräger CC-Vision and GasVision**  
Customized software

### Configuration of gas detectors

The software CC-Vision is the premium choice to configure your portable gas detector: easy use, comprehensive possibilities for configuration and saving individual settings. Moreover, CC-Vision can generate templates, used by X-dock to configure complete gas detector fleets. The best: CC-Vision is free of charge!

### Data evaluation

The software GasVision 7 is the key to a beneficial analysis of data collected by portable gas detectors. Analysing the graph, calculating average and finding peak values, creating excel exports and printing tables and charts - GasVision 7 is the ideal tool.

- In conjunction with X-dock Manager, GasVision 7 gets data logger read out by X-dock with a simple mouse-click.

### Calibration

CC-Vision can show the response curve during calibration and can document the calibration results. If you don't own an X-dock system for calibration, CC-Vision is the next best way to ease your life.

### Real time measurements

GasVision 7 supports most of the Dräger portable gas detectors in regards to real time measurements. See the values immediately on your PC while the gas detector is measuring it.

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Gasvision 7 software - license key - software GasVision Download via Dräger website (free of charge during 45 days)	1	8325646
USB DIRA cable	1	8317409
<b>Dräger CC Vision - free for download via <a href="http://www.draeger.com/software">www. draeger.com/software</a></b>		

## GS01 Hydrocarbon IR Detector

Truly wireless, the GasSecure GS01 combines single-beam triple-wavelength infrared (IR) technology with extremely low power consumption, to provide fast hydrocarbon gas detection in the most demanding and hazardous of settings. The GS01 creates value for the customer with dramatically reduced installation cost and time, reliable infrared operation, and calibration-free design.



### GS01 Hydrocarbon IR Detector

Wirelessly reduces project costs by 60-80%

#### GS01 wireless gas detector

GasSecure offers the world's first truly wireless IR gas detector for demanding industrial applications. The GS01 is used to detect the presence of hydrocarbon gases and warn operators of the risk of fire or explosion. Its ultra-low power design and small integrated battery pack enables up to two years of continuous operation.\* Customers have seen up to 60 – 80% savings on total project costs because of dramatically reduced installation cost and time. The wireless communication is based on the open ISA100 Wireless™ standard – which means simplified integration with other commercially available field wireless devices.

#### Features

- Truly wireless, no cables
- No recalibration required
- Fail-safe IR detection with triple wavelength including heated optics
- Suitable for SIL 2 systems – 3rd party verification of detector and wireless communication for safety applications
- Fast gas detection response of ≤5 seconds
- Hazardous area intrinsically safe design
- Low power, lightweight gas detector with intrinsically safe field replaceable battery pack
- Up to 2 years battery life (depending on environmental conditions)

#### Benefits

Adding capacity or upgrading facilities often entails expansion or modernization of existing gas detection systems. Wireless is a perfect solution since it can be integrated into legacy systems without the need to install new or additional cabling and increase plant uptime.

#### Features

- Significant cost and time savings when compared to wired detection system
- No cabling means hugely improved installation flexibility
- Reduced maintenance overheads due to lifetime calibration
- Easily transferrable between projects (eg. shutdowns, maintenance)
- No sensor drift due to lifetime calibration – therefore no false alarming
- Rapid response times mean early warning and increased plant safety

#### Applications

The GS01 is proven in the field to be a flexible and cost efficient solution for plant expansions, revamps, upgrades and new greenfield projects. Just some of the applications include:

- Oil & gas production platforms
- Oil & gas exploration rigs
- Storage tank farms
- Shutdown and end of life operations – Petrochemical plants & refineries
- Gas terminals & processing plants – FPSO / FLNG vessels

#### Technology

Infrared sensor technology is taken to the next level using patented MEMS (Micro Electromechanical System) optical filters. The device filters, focuses and switches light continuously, thereby establishing the gas and reference measurement. GS01 technology achieves fast and ultra-low power operation with life-long zero point stability. The innovative hardware design is supported by GasSecure's patented SafeWireless™ communication system that meets the requirements of reliability, fast response times, availability and power efficiency – all with full control of network traffic.

### TECHNICAL SPECIFICATIONS

Detection method	Single beam, triple wavelength IR
Detectable gases	Hydrocarbons, 0 to 100% LEL - Available configurations: Methane, Propane

## GS01 Hydrocarbon IR Detector

Calibration	Factory-set, no field calibration
Response time	≤5 sec.
Accuracy	±3% LEL or ±10% of reading (whichever is greater) - Refers to Methane
Zero-point stability	±3% LEL (lifelong)
Operating temperature	-30 to +50°C (extended range to +65°C on request, contact GasSecure)
Storage temperature	-40 to +65°C
Humidity	0 to 100% RH
Ingress protection	IP66 and IP67
Dimensions	300 × 110 × 170 mm
Weight	2.8 kg (incl. battery)
Mounting	With bracket for 8 mm or 5/16" bolts
Approvals	ATEX, IECEx: II 2G Ex ib IIC T4 Gb (-40 to +65°C) Safety level: SIL 2 certified to IEC 61508 Ed.2.0
Battery type	Lithium-Thionyl Chloride
Average power	5 mW
Battery lifetime	Up to 2 years
RF power	10 dBm (10 mW)
Communication type	IEEE802.15.4 in 2.4 GHz ISM band
Communication protocol	ISA100 Wireless™
Communication gateway output	Standard: Modbus TCP/RTU, OPC Optional: PROFINET (SIL2)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GS01 Hydrocarbon IR Detector	1	On request

## Dräger Regard 2400 and 2410

Dräger Regard 2400 and 2410 are flexible small control units for detection of toxic gases and oxygen as well as combustible gases and vapours. Combined with the Dräger transmitters or sensing heads Dräger Regard 2400 or 2410 forms a low-maintenance gas detection system for reliable protection.



### Dräger Regard 2400 and 2410

Flexible and small control units for detection of a.o. toxic gases

#### Flexibel control unit

Dräger REGARD 2400 and 2410 are suitable for 4 transmitters. 4 to 20 mA transmitters as well as Dräger Polytron SE Ex sensing heads can be connected. The Dräger REGARD 2400 with wall-mounted enclosure is pre-installed including terminals, 2.5 A power supply units and fuses. It can be mounted directly onto a wall. The Dräger REGARD 2410 has been designed for easy set-up, low-cost mounting onto DIN rails in existing switching or wall cabinets. The units are ATEX approved.

#### Customized configuration

Dräger REGARD 2400 and 2410 can be freely configured. Two internal relays for gas alarm thresholds or gas alarm groups can be allocated to the respective measuring channels. Additional relays are available for acoustic alarm and fault status. Additionally, the Dräger REGARD 2400 and 2410 are equipped with two digital inputs - e.g. for horn reset or flow control. Finally Dräger REGARD 2400 and 2410 can be connected to external

modules such as an input-output module and a relay module via its built-in Modbus interface. Initial configuration of the Dräger REGARD 2400 or 2410 is done via a PC. The necessary interface connection cable and software are available as accessories.

#### Details

- wall-mounted (2400) or small rail mounted (2410) control unit
- up to 4-channel control for toxic and combustible gases, and oxygen, can be easily configured
- 2 gas alarm relays, 1 acoustic alarm relay and 1 fault relay
- flexible gas and alarm evaluation
- easy to operate
- configuration via PC/laptop
- ATEX approval
- via Modbus 12 additional relays (optional)
- via Modbus 6 digital inputs and 6 analogue (4 to 20 mA) outputs (optional)

### TECHNICAL SPECIFICATIONS

Central unit	Independent 4-channel wall-mounted (2400) or rail-mounted (2410) control unit in accordance with DIN EN 50022
Power supply	24 VDC +/- 10 % (2410) 24 VDC / 110 to 230 VAC 50 to 60 Hz (2400)
Inputs	2-wire/3-wire 4 to 20 mA transmitter or Dräger Polytron SE Ex sensing heads via signal converter (optional)
Outputs	Potential-free relay contacts of the 2 gas alarm relays plus one acoustic alarm relay and one failure relay each for 250 VAC, 2 A (2400 DPCO and 2410 SPCO)
Temperature	- 20 °C to + 60 °C
User interface	3-pushbutton operation, Dot-matrix display, LEDs, RS 232 for configuration software, Modbus interface
Dimensions	105 x 86 x 72 mm (W x H x D) (2410) 185 x 213 x 118 mm (W x H x D) (2400)
Ingress protection	IP20 (2410), IP54 (2400)
Approvals	EMC (89/336/EWG), Low voltage (73/23/EWG and 93/68/EWG), Ex II (2) G according to TPS 04 ATEX 1 001 X

# Dräger Regard 2400 and 2410

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron Regard 2410	1	SC00011
Dräger Polytron Regard 2400	1	SC00014
Internal converter module SE Ex (only Dräger REGARD 2400), one required per SE Ex channel	1	SC00016
Power Supply 5A, DIN Rail Mounting	1	4208746



# Dräger Regard 3900

The devices of the Dräger REGARD® 3900 series can be used as standalone controllers. You can configure up to 16 measuring channels. In addition, the modular setup enables you to customise the control units to the demands of your plant. You can also embed further features to existing alarms.



**Dräger Regard 3900**  
Standalone controller for up to 16 measuring channels

### Input modules

You can connect up to four 4 to 20 mA transmitters with 2 or 3-core cables to an input module. Up to a total of four input modules per controller can be installed. Each module is populated with three relays. These relays offer common "Fault", "Alarm 1" and "Alarm 2" SPOC outputs. In addition, the two alarm levels are fully configurable and can be set as rising or falling and latching or non-latching. A third alarm is possible by using the relay module.

### Relay module

You can add two relay modules to the controller of the REGARD 3900 series. Each module is populated with eight relays. The first relay is dedicated as a "Fault" relay and cannot be reconfigured. The remaining seven relays can be configured as "Single", "Common" or "Voting" alarms. An additional "Alarm 3" is offered by the relay module along with a second fault threshold. You acknowledge the alarm relays via the push buttons on the front panel. The relays work with open-circuit current or close current.

### Output module (Repeater module)

Each 4 to 20 mA output repeats the signal of up to eight inputs. This allows indication or recording of gas levels by other control units. You can install up to two analogue output modules.

### Configuration

You configure your control unit quickly and easily with the configuration software Config

3900 via laptop or PC. For new installations the configuration is prepared offline and uploaded during the commissioning. For maintenance you can download the system configuration for a check. You can get the necessary cable as an accessory. By using the push buttons on the front panel, the REGARD 3920 can be easily adjusted. The configuration menu is easy to understand.

### Mounting and installation

The robust housing of REGARD 3900 and 3920 is dust-tight and protected against water jets (IP 65). Thus these control units can be installed in safe area. The REGARD 3910 is equipped with built-in display and backplane. You can easily mount it into a cabinet. The modules can be installed there as well.

### Gateway solution

The REGARD 3900 Modbus Gateway is an interface that converts a CAN bus protocol into a Modbus RTU protocol. Due to this factor, the gateway allows the communication between the control unit of the REGARD 3900 series (CAN bus) with RVP 3900 (Remote Visualisation Panel) or other systems (Modbus RTU). Other possible gateways are: Modbus TCP/IP and PROFIBUS® Gateway. You can use these to transfer data to third party control systems.

## TECHNICAL SPECIFICATIONS

Type	Control unit for location in a non-hazardous area
Gas and ranges	Toxic, oxygen and combustible gases with user definable measuring ranges. Refer to transmitter type for ranges, name and engineering units. All configurations by Laptop computer.
Inputs	2 or 3 wire 4-20 mA transmitters, remote reset, 24 VDC supply
Outputs	Alarm 1, Alarm 2 and Fault as standard Warning and inhibit relays on optional relay module Single, common or voted alarms on optional relay module Acknowledgeable relays on optional relay module Repeat 4-20 mA via optional Repeat Board

## Dräger Regard 3900

Display	4 line, 40 character back-lit LCD Active, Fault, Alarm 1 and Alarm 2 LED's per input DC and AC power LED's Inhibit LED
Power supply	External 24 VDC Internal 2.5 A, 5 A or 10 A power supply @ 110/240 VAC
Weight	3 kg / 6.6 lbs, depending upon installed power supply
Dimensions	420 x 300 x 190 mm / 16.5" x 11.8" x 7.5" (W x H x D)
Temperature	0 to 55 °C / 32 to 130 °F
Ingress Protection	IP 65, ABS – OV material of construction
Approvals	ATEX, II (2)G Acc. to Directive 94/9/EC, CE Mark, Electromagnetic compatibility (directive 89/336/EEC), Low voltage directive (72/23/EEC, 93/68/EEC)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger REGARD 3900 Basic Unit	1	4208780
Dräger REGARD® 3900 (1x 4 to 20 mA Input Module + 1x Relay Module)	1	4208810
Dräger REGARD® 3900 (1x 4 to 20 mA Input Module + 2x Relay Module)	1	4208811
Dräger REGARD® 3900 (2x 4 to 20 mA Input Module + 0x Relay Module)	1	4208812
Dräger REGARD® 3900 (2x 4 to 20 mA Input Module + 0x Relay Module)	1	4208813
Dräger REGARD® 3900 (2x 4 to 20 mA Input Module + 2x Relay Module)	1	4208814
Dräger REGARD® 3900 (3x 4 to 20 mA Input Module + 0x Relay Module)	1	4208815
Dräger REGARD® 3900 (3x 4 to 20 mA Input Module + 1x Relay Module)	1	4208816
Dräger REGARD® 3900 (4x 4 to 20 mA Input Module + 0x Relay Module)	1	4208817

# Dräger REGARD-1

The Dräger REGARD-1 is a standalone, self contained single channel control system for the detection of Toxic, Oxygen and Ex hazards. The control system is fully configurable for a single input from either a 4 to 20 mA transmitter or a Dräger Polytron SE Ex measuring head.



## Dräger REGARD-1

Standalone, self contained single channel

### High flexibility

The Regard-1 can either be connected to a 4-20-mA transmitter or to Polytron-SE-Ex mV sensing heads. There are three fully configurable alarm relays: rising or falling, latching or non-latching. The alarm status is displayed via three LEDs. They will flash with a new alarm, light up continuously to display an acknowledged alarm situation or extinguish if there is no alarm. The gas concentration is displayed continually on a large LC display. If the alarm thresholds are exceeded or if a fault occurs, the integrated audible alarm will sound. To indicate a transmitter or system fault, a fault relay is provided, a separate fault led is provided on the panel which will flash under new fault condition, light continuously under acknowledged fault condition or will be extinguished under normal or healthy conditions. During maintenance, the maintenance or inhibit relay can be used to report this special status via a remote display.

### Useful additions

The Regard-1 can be equipped with an optional TWA control module. This module enables the output of a TWA alarm as well as the repeat of a 4 to 20mA signal and the

alarm states via a digital interface. To ensure the operation of the Regard-1 during a power failure, two batteries of 1.2 Ah each can be inserted into the integrated battery compartment. Depending on the transmitter used, they will enable an operating time from 30 minutes up to two hours. The batteries are re-charged by the Regard-1.

### Robust enclosure

The robust IP65 enclosure enables the installation of the control system at virtually any location within safe areas.

### Certifications

In accordance with the ATEX directive, the system is certified to EN 61779-1/4/5 and EN 50104 for explosion monitoring and oxygen measuring and, therefore, also suitable for applications which require the measuring function for explosion protection (primary measure in accordance with EN 1127-1, paragraph 6). In addition, the system was also tested independently to EN 45544 for the monitoring of toxic gases.

## TECHNICAL SPECIFICATIONS

Central unit	Independent 4-channel wall-mounted (2400) or rail-mounted (2410) control unit in accordance with DIN EN 50022
Power supply	24 VDC +/- 10 % (2410) 24 VDC / 110 to 230 VAC 50 to 60 Hz (2400)
Inputs	2-wire/3-wire 4 to 20 mA transmitter or Dräger Polytron SE Ex sensing heads via signal converter (optional)
Outputs	Potential-free relay contacts of the 2 gas alarm relays plus one acoustic alarm relay and one failure relay each for 250 VAC, 2 A (2400 DPCO and 2410 SPCO)
Temperature	- 20 °C to + 60 °C
User interface	3-pushbutton operation, Dot-matrix display, LEDs, RS 232 for configuration software, Modbus interface
Dimensions	105 x 86 x 72 mm (W x H x D) (2410) 185 x 213 x 118 mm (W x H x D) (2400)
Ingress protection	IP20 (2410), IP54 (2400)
Approvals	EMC (89/336/EWG), Low voltage (73/23/EWG and 93/68/EWG), Ex II (2) G according to TPS 04 ATEX 1 001 X

# Dräger REGARD-1

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger REGARD-1, 4 - 20 mA	1	4208585
Dräger REGARD-1, SE Ex	1	4208600
Rechargeable battery kit	1	4208586
Options board (4 to 20 mA repeater, RS 232, TWA alarm relays)	1	4208583
Display board with datalogger	1	4208636

## Dräger Polytron® 5720 IR

The Dräger Polytron® 5720 IR is a cost-effective explosion proof transmitter for the detection of carbon dioxide in volume percentage or ppm. It uses a high-performance infrared Dräger PIR 7200 sensor that can be submerged in water without damage. A 3-wire 4-to-20 mA analogue output with relays makes it compatible with most control systems.



### Dräger Polytron 5720

To detect carbon dioxide

#### Same design, same operating principles

The Polytron 5720 belongs to the Dräger Polytron 5000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements. The backlit LCD display shows status information clearly with quick access to functions, using a non-intrusive magnetic wand. The gas concentration and measurement unit are displayed during normal operation. Coloured LEDs (green, yellow and red) provide additional alarm and status information.

#### Three relays for controlling external equipment

The Dräger Polytron 5720 can also be supplied with three integrated relays on request. This enables you to use it as an independent gas detection system with two adjustable concentration alarms and one fault alarm. Audio alarms, signal lights or similar devices can thus be controlled locally without

an additional cable between the transmitter and central controller.

#### Safe, robust housing for every application

The Polytron 5720 features a Class I, Div. 1-rated explosion proof enclosure made from aluminum or stainless steel, making it suitable for a wide range of environmental conditions. A protection type "e" version includes a convenient docking station enabling installation in hazardous atmospheres without running conduit (where approved).

#### Make the impossible possible with the remote sensor

An available remote sensor conduit housing allows the PIR sensor to be installed up to 30 metres away from the Polytron transmitter. A special Flow Cell accessory allows one person to perform the full calibration of a remote sensor from the transmitter.

### TECHNICAL SPECIFICATIONS

Type	Explosion proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")
Gases	Carbon dioxide
Measuring range	0 to 10 Vol. -% (standard) 0 to 2000 ppm ... 30 Vol.-% (configurable)
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)
Signal output analogue	Normal operation: 4 to 20 mA
Power supply	10 to 30 V VC, 3-wire
Temperature	-40 to 77°C without relay
Dimensions (H x W x D), approx.	280 x 150 x 130 mm (w/o docking station) 280 x 180 x 190 mm (w docking station)
Weight, approx.	3.9 kg (w/o docking station, aluminum) 5.7 kg (w/o docking station, SS316 L stainless steel) 5.2 kg (w/ docking station, aluminum) 7.1 kg (w/ docking station, SS316 L stainless steel)
Approvals	UL, CSA, IECEx, ATEX, CE-ATEX

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron 5720 IR d A	1	8344200

## Dräger Polytron® 7000

The Dräger Polytron® 7000 is a gas detector that can satisfy all toxic and oxygen gas measurement applications on a single platform. It is meeting the requirements of the compliance market as well as the high specification requirements of customized solutions.



**Dräger Polytron 7000**  
To measure toxic and oxygen gas

### Easy operation

Dräger developed the simple and structured software menu of the Polytron 7000 in collaboration with its customers. The big graphic display shows status information with the help of icons and plain text, and guides the user through calibration and configuration.

### Communication interfaces

The wide range of outputs, 4 to 20 mA, HART®, LON, PROFIBUS® or FOUNDATION Fieldbus™, enables the use of the Polytron 7000 on either a control system from the Dräger Regard family, or third party control systems. The modular design allows for the subsequent retrofit onto any of the mentioned interfaces.

### Remote Sensor

With the Polytron 7000 remote sensor adaptor and lead it is possible to mount the sensor up to 30 metres from the polytron 7000 transmitter. This enables the user to read and operate the transmitter from a safe area, or detect toxic gasses and oxygen levels in difficult to reach areas, whilst still being able to view and configure the Polytron 7000 from a convenient location. A duct mount kit enables the remote sensor to be mounted direct in elevated pipe work.

### Relay module

The Dräger Polytron 7000 can be equipped with a relay module. With two gas alarm relays, and one fault alarm relay, the transmitter can either be used as a stand alone gas detector with no need for a controller; or alarm devices can be activated locally saving costs in cabling to and from a controller. The analogue signal can still be transmitted back to a controller if desired. (Not suitable for use in hazardous areas)

### Intelligent sensors

The Dräger Polytron 7000 can detect over 100 different gases. DrägerSensors are specifically designed for the demands of 24 hours per day, 365 days per year operation. The large DrägerSensor size gives them their renowned long life. The built-in sensor data memory containing all the relevant gas and calibration information, together with on board

temperature and pressure compensation gives the DrägerSensor its unsurpassed measurement performance. This also allows the Polytron 7000 to accept pre-calibrated sensors, with minimal operator intervention, the Dräger Polytron 7000 is a virtually maintenance free transmitter.

### Software options

With three different software dongles, a range of functions are incorporated into the transmitter adjusting it to user or application specific requirements. With the sensor test dongle, the Dräger Polytron 7000 performs many different patented sensor tests that ensure the reliability and functionality of the sensor and gas detection system. With the new sensor diagnosis function (including the sensor test), operational demands and the remaining sensor life time is estimated so that maintenance and exchange schedules can be created. A data and event saving option is integrated into the data dongle. This saves the measured values and events such as alarms and warnings. The data can be downloaded onto a PDA m515-Ex via an IR interface and evaluated on a PC with the Dräger GasVision software or at the push of a button, a 15 minute concentration history is shown on the transmitter display.

### Pump module

The inclusion of a pump module enables the Polytron 7000 to draw gas samples from difficult to reach areas, the gas sample is then passed across the DrägerSensor for detection. The pump unit, like all accessories in the Polytron 7000 range is modular, and can be retrofitted into existing transmitters. (Not suitable for use in hazardous areas)

# Dräger Polytron® 7000

## TECHNICAL SPECIFICATIONS

Central unit	Independent 4-channel wall-mounted (2400) or rail-mounted (2410) control unit in accordance with DIN EN 50022
Power supply	24 VDC +/- 10 % (2410) 24 VDC / 110 to 230 VAC 50 to 60 Hz (2400)
Inputs	2-wire/3-wire 4 to 20 mA transmitter or Dräger Polytron SE Ex sensing heads via signal converter (optional)
Outputs	Potential-free relay contacts of the 2 gas alarm relays plus one acoustic alarm relay and one failure relay each for 250 VAC, 2 A (2400 DPCO and 2410 SPCO)
Temperature	- 20 °C to + 60 °C
User interface	3-pushbutton operation, Dot-matrix display, LEDs, RS 232 for configuration software, Modbus interface
Dimensions	105 x 86 x 72 mm (W x H x D) (2410) 185 x 213 x 118 mm (W x H x D) (2400)
Ingress protection	IP20 (2410), IP54 (2400)
Approvals	EMC (89/336/EWG), Low voltage (73/23/EWG and 93/68/EWG), Ex II (2) G according to TPS 04 ATEX 1 001 X

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron 7000, several variations possible, ask our sale department for support	1	Op aanvraag

## Dräger PIR 7200



### Dräger PIR 7200

An explosion proof point infrared gas detector for continuous monitoring of carbon dioxide

The Dräger PIR 7200 is an explosion proof point infrared gas detector for continuous monitoring of carbon dioxide. Designed for the industrial use, the transmitter offers drift-free optics. And due to its robust product design the PIR 7200 can be operated even in harsh environments.

#### Advanced signal stability

Almost two decades after launching the first fixed infrared gas detector – followed by a great market success with more than 100,000 units sold – Dräger now introduce the Dräger PIR 7200 which encompasses the latest in revolutionary technology.

Based on patented innovations, the Dräger PIR 7200 combines a maximum light collecting construction with a 4-beam signal stabilising system. The total optical system uses no light beam split, simply a set of various reflectors. This double-compensating optical system is very resistant towards known influences such as dust, fog or insects frequently found in the measuring cuvette or by dirt accumulation on the optical surfaces. Due to its non-imaging construction, the measuring signal is not affected by a partial beam block.

This innovative optical system ensures that the Dräger PIR 7200 fulfils the customer requirements in industrial applications of "no false alarms", longer service intervals and a drift-free signal output.

#### Fast response

Equally important is being informed about a potential hazard as early as possible. An early and reliable gas alarm allows for safety measures to be initiated on site.

To support this, the Dräger PIR 7200 offers a configurable response mode which allows the end user to choose between "normal" or "high speed" response subject to the application. Using the "high speed" option, and combining it with the lowest feasible alarm threshold, the Dräger PIR 7200 shortens the reaction time in case of an alarm. Leakages can be detected at the earliest stage of their existence.

#### Multiple configuration capabilities

The Dräger PIR 7200 is delivered with the optimum default settings, but remains fully flexible to meet with the customers demands on an application-by-application basis.

Whether it be reduced or increased measuring ranges or configurable special signals (fault, beam block warning, maintenance) – these features of the Dräger PIR 7200 offer the possibility to set up every

device exactly to the customer's needs and preferences.

#### Maximum reliability – SIL 2 certified

Years of experience in manufacturing gas detectors using infrared technology lead to a continuously enhanced product quality. Now, the Dräger PIR 7200 is further advanced as the total product has been developed inline with the Functional Safety standard EN 61508. This is applicable to both the devices hardware and software. Furthermore, the excellent parameters as detailed in the SIL 2 (Safety Integrity Level) certificate, issued by the German TÜV, show that only 2 % from the entire SIL 2 budget is allocated to the field device, thus providing flexibility to choose control systems and actuators. This is a new understanding of reliability – not only fulfilling but exceeding the SIL 2 requirements significantly.

#### Functions

- Linearised response characteristics for carbon dioxide
- Multiple configuration capabilities of all special signals (in accordance with NAMUR NE 43)
- Precise and stable measurement
- Fastest response of less than 1 second
- Beam block warning signal in the case of contaminated optics for predictive maintenance
- Long maintenance intervals
- Extended temperature range of up to +77 °C / + 170 °F
- Double-compensating and non-imaging optics (with 4-beam technology)
- Single cable multidrop capability using HART® communication
- Conventional 4 to 20 mA analogue signal output
- Hermetically sealed stainless steel 316L enclosure
- No moving parts
- Resistant towards shock and vibration up to 4 G
- Continuous self-testing in the context of the IEC/EN 61508 standard
- Developed and manufactured according to the SIL guidelines, SIL 2 certified by TÜV



# Dräger PIR 7200

- Ex approvals for worldwide application:  
ATEX, IECEX, UL, CSA
- Dust ex approval for zone 21 and 22
- Typical lifetime greater than 15 years

## TECHNICAL SPECIFICATIONS

Type	Explosion proof gas transmitter with infrared sensor technology
Principle of operation	Temperature-compensated infrared absorption, 4-beam technology
Gases and ranges	Carbon dioxide (CO <sub>2</sub> ) - 0 to 10 % vol. (default) 0 to 2,000 ppm ... 30 % vol. (configurable)
Output signals	4 to 20 mA, HART®
Temperature	40 to +77 °C (operating)
Material	Stainless steel SS 316 L
Dimension	160 mm × Ø 89 mm
Ingress protection	IP66 and IP67, NEMA 4X
Approvals	ATEX, IECEX, UL, Safety Integrity Level, CE mark

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PIR 7200	1	Op aanvraag

## Dräger PEX 3000



### Dräger PEX 3000

Detects flammable gases and vapours in concentrations

The transmitter Dräger PEX 3000 detects flammable gases and vapours in concentrations below their lower explosive limit. Its DD-sensor provides a long-term stable measuring signal and responds to gas within a few seconds.

#### Six variants of transmitters

You can choose between two measuring ranges (0 ... 100 or 0 ... 10 %LEL) and two different junction box sizes. The larger junction box provides optional horizontal or vertical cable entry. Where the application asks for the sensor to be mounted remote from the junction box then it is possible to use the remote cable assembly combined with the sensing head of type Polytron SE Ex.

#### Simple installation

The three core screened cable from the control system terminates within the junction box of the Dräger PEX 3000 by means of three Ex-approved spring terminals. The sensor connects to three different Ex-approved spring terminals. Ex-approved spring terminals are not self-loosening and are inherently more reliable than standard screw terminals, therefore self-loosening is no longer an issue!

#### One-man Calibration

Owing to the state-of-the-art design of the Dräger PEX 3000 it is possible to open the Ex e junction box in the hazardous area to perform maintenance and calibration. Using the two internal push buttons and the internal seven segment digital display you can perform many different activities including one-man calibration. No additional hardware is required, e.g. a hand held terminal.

#### Explosion Protection

The Dräger PEX 3000 is approved according to the EU-Directive 94/9/EC to be operated at ambient temperatures ranging from - 40 up to + 65 °C. This applies to both explosive gas atmospheres and explosive dust atmospheres (Zones 1, 2, 21, and 22).

#### Low gas concentrations

For applications where it is necessary to detect low concentrations then the transmitters Dräger PEX 3000 type XTR 0010 or XTR 0011 with their special low-drift LC sensor are very suitable. These transmitters reliably detect gas leaks of concentrations up to 10 %LEL.

#### Newly developed: DD sensor

The new DD sensor is based on the well-known catalytic bead technology from Dräger and is designed and manufactured by Dräger for long term stability and resistance against sensor poisons. Furthermore, the new DD sensor uses an innovative non-sintered disc gas inlet therefore the reaction time towards the target gas is now only a few seconds. This fast speed of detection allows for countermeasures to be initiated earlier, therefore guarding against the formation of an explosive atmosphere.

### TECHNICAL SPECIFICATIONS

Type	4-to-20-mA-transmitter with catalytic bead sensor
Gases and vapors	Flammable gases and vapors in the ambient air such as acetone, acetylene, ammonia, benzene, 1,3-butadiene, n-butane, n-butyl acetate, diethyl ether, dimethyl ether, ethanol, ethyl acetate, ethylene (ethene), ethylene oxide, n-hexane, hydrogen, methane, methanol, methyl ethyl ketone (MEK), methyl methacrylate, nonane, n-octane, n-pentane, petrol 065/095, propane, i-propanol, propylene (propene), propylene oxide, toluene and o-xylene
Measuring range	Typ XTR 0000, XTR 0001: 0 to 100 %LEL Typ XTR 0010, XTR 0011: 0 to 10 %LEL
Power supply	12 to 30 V d.c. (nominal 24 V d.c.), max. 110 mA at 24 V
Signal output	Normal operation 4 to 20 mA - Maintenance 3.4 mA - Fault condition < 1.2 mA
Cabling	3-core, shielded, core cross-section 0.75 to 1.5 mm <sup>2</sup> , outer diameter 7 to 12 mm
Max. cable length (at 24 V, 250 Ohms)	2400 m at 3 x 1.5 mm <sup>2</sup> , 1600 m at 3 x 1.0 mm <sup>2</sup> , 1200 m at 3 x 0.75 mm <sup>2</sup>

# Dräger PEX 3000

Response time (at 25°C, methane)	Type XTR 0000, XTR 0001: t50: 3 ... 5 s, t90: 8 ... 10 s Type XTR 0010, XTR 0011: t50 < 9 s, t90 < 20 s
Ambient conditions	Temperature: - 40 to + 65 °C (depending on temperature class) Pressure: 700 to 1300 hPa Humidity: 5 to 95 % r. H.
Housing material	glass fiber reinforced polyester (GRP)
Ingress Protection	IP 66
Dimensions (W x H x D)	Type XTR 00x0: ca. 80 x 130 x 55 mm Type XTR 00x1: ca. 135 x 110 x 55 mm
Weight	ca. 600 g
Expected sensor lifetime	typical > 3 years
Explosion protection	except XTR 009x: II 2G Ex de IIC T6/T5/T4 Gb, II 2D Ex t IIIC, T80/95/130 °C Db IP6X, - 40 ≤ Ta ≤ + 40 / 55 / 65 °C XTR 009x: II 2G Ex de IIC T6 Gb, II 2D Ex t IIIC T80 °C Db IP6X, - 40 ≤ Ta ≤ + 65 °C
Performance approval	acc. to EN 60079-29-1 for the a.m. gases and vapors (100 %LEL variants only)
Functional Safety (100 %LEL variants only)	Average probability of failure on demand (TP = 1 year), PFD = 5.56E-04 Safe failure fraction (HFT = 0, Type B), SFF = 90.4 %

## ORDER INFORMATION

Description	Unit Sales	Articlenr
PEX 3000, Type XTR 0000, small housing, 0 to 100 %LEL	1	8318280
PEX 3000, Type XTR 0001, medium-sized housing, 0 ... 100 %LEL	1	8318360
PEX 3000, Type XTR 0010, small housing, 0 ... 10 %LEL	1	8318290
PEX 3000, Type XTR 0011, medium-sized housing, 0 ... 10 %LEL	1	8318370
PEX 3000, Type XTR 0090, small housing, remote transmitter without sensor	1	8318380
PEX 3000, Type XTR 0091, medium-sized housing, remote transmitter without sensor	1	8318390
Dust filter for DrägerSensor PR M DD (PE-disks, 10 pieces)	1	6810537
Calibration adapter (PE)	1	6806978
Process adapter (stainless steel) for PEX 3000 XTR 0000, XTR 0001	1	6812470
Process adapter (stainless steel) for PEX 3000 XTR 0010, XTR 0011	1	6812465

## Dräger Polytron Pulsar 2

The Dräger Polytron Pulsar 2 is the latest infrared technology in open path gas detection. Equipped with all the same functions as the standard Dräger Pulsar, Pulsar 2 is fitted with an ABS moulded cover and is supplied with either a junction box or certified connector to provide complete flexibility during installation.



**Dräger Polytron Pulsar 2**  
Open path gas detection

### Easy adjustment and commissioning

Designed for one man installation and commissioning through use of a hand-held terminal the Pulsar 2 transmitter and receiver can be accurately aligned, gas level zeroed and commissioned with maximum efficiency. The factory calibration of the Polytron Pulsar 2 makes manual setting and test gas superfluous.

### System stability

The detector is designed so that no fault remains undetected. During normal operation, the output signal is between 4 to 20 mA, depending on the measured gas concentration. A signal of < 1 mA represents a fault due to a constant beam block or hardware failure requiring immediate attention. However, a signal of 2 mA identifies a beam block and will go to fault if this persists for more than 60 minutes. The Pulsar will also output a 3.5 mA signal to indicate pre-warning where the optics may be dirty or miss-aligned. During the period which the Pulsar displays 'Pre-warning' it will still detect gas allowing the customer to schedule maintenance on the detector therefore reducing down time. With no unrevealed faults, the Pulsar 2 is SIL 2 capable.

### In-built database

The receiver logs records and details a report of the last seven working days and a summary of the last 32 weeks. These reports contain important information such as measuring values, i.e. 'beam block', gas readings, warning signals, signal strength, adjustments, supply voltage and operating temperature.

### Extensive access to data from safe areas

The optional Polytron Pulsar Software can provide easy access to configuration, current measured values and the internal data-logger from a non-hazardous area through Digital Communication. For large and complex installations, the Pulsar software can allow integration of several devices via the AI5000. Up to 32 AI500's can be multi dropped; therefore allowing access to up to 128 pulsars - useful for planning service and maintenance measures.

### High performance

The Pulsar receiver communicates to the transmitter via a digital link which allows the receiver to identify and adjust to fluctuating environmental conditions. The microprocessor built into the receiver unit instructs the transmitter unit to increase the flash rate for increased performance and accuracy. The Pulsar is immune to influences such as sunlight, gas flares, arc welding or resonance effects due to vibrations of rotating parts, as well as to environmental influences such as mist, drizzle or snow. The flash rate is also increased upon the detection of gas to ensure both accuracy and fast response.

### Heated optics

Regulated internal lens heaters protect against build up of ice and snow under adverse weather conditions. They also prevent condensation on the lenses eliminating interference with the measurement function.

### HART-communication

The HART-Communication of the Polytron Pulsar allows for digital communication between the explosion-proof and the secure areas. Without additional cabling, you can obtain real-time access to the status of individual detectors and to the configuration and historical data of each device.

### Worldwide Approvals

The Polytron Pulsar Duct Mount holds a performance approval from FM, and global product approvals including ATEX, IECEx, CSA and UL.

# Dräger Polytron Pulsar 2

## TECHNICAL SPECIFICATIONS

Type	Explosion proof Open Path gas detector utilizing dual wavelength infrared absorption technic
Gases	Wide range of hydrocarbons including the alkane series from methane to hexane, propylene, ethanol and methanol
Range	From 0 to 4 up to 0 to 8 LEL*m
Factory calibration	Methane or propane, selectable. Other hydrocarbon gases on request
Operating distance	4 to 60 m, 30 to 120 m or 100 to 200 m, 13 to 197 ft, 98 to 394 ft or 328 to 656 ft separation of transmitter and receiver
Signal output	Analog - Measuring 4 to 20 mA
Supply voltage	ATEX - 18 to 30 VDC, UL/CSA - 18 to 27 VDC
Power consumption	Max. 0.95 A @ 24 V, with full heating and all source lamps operating
Response time t95	<2s
Ambient conditions	Temperature: - 40 to + 60 °C Pressure: 800 to 1,100 hPa, 23.6 to 32.5 inch Hg Humidity: 0 to 100 %RH, non-condensing
Enclosure	IP66, stainless steel
Dimensions (W x H x D)	260 x 340 x 220 mm
Weight	ca. 6 kg
Approvals	ATEX, IECEx, FM/ANSI, DNV, IEC 60079-29-4, UL, CSA

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron Pulsar 2 - variations by max. opearting range and approval - transmitter and receiver, each fitted with an ABS moulded cover. Supplied with EEx e junction box or EEx d certified plug and socket. Our Sales department supports you with the configuration of this product.	1	On request

## Dräger Polytron® 5700 IR



### Dräger Polytron 5700 IR

For the detection of flammable gases in the lower explosive limit

The Dräger Polytron® 5700 IR is a cost effective explosion-proof transmitter for the detection of flammable gases in the lower explosive limit (LEL). It uses a high performance infrared Dräger PIR 7000 sensor that will quickly detect most common hydrocarbon gases. A 3-wire 4 to 20-mA analogue output with relays makes it compatible with most control systems.

#### Same design, same operating principles

Polytron 5700 belongs to the Dräger Polytron 5000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements. The backlit display shows status information clearly with quick access to functions using a non-intrusive magnetic wand. The gas concentration and measurement unit are displayed during normal operation. Coloured LEDs (green, yellow and red) provide additional alarm and status information.

#### Three relays for controlling external equipment

The Dräger Polytron 5700 can also be supplied with three integrated relays upon request. This enables you to use it as an independent gas detection system with two adjustable concentration alarms and one fault alarm. Audio alarms, signal lights or similar devices can thus be controlled locally without an additional cable between the transmitter and central controller.

#### Safe, robust housing for every application

Polytron 5700 features a Class I, Div. 1 rated explosion proof enclosure made from aluminum or stainless steel, making it suitable for a wide range of environmental conditions. A protection type "e" version includes a convenient docking station which allows

installation in hazardous atmospheres without running conduit (where approved).

#### Make the impossible possible with the remote sensor

An available remote sensor conduit housing allows the PIR sensor to be installed up to 30 metres away from the Polytron transmitter. A special calibration flow cell accessory enables one person to perform a full calibration of a remote mounted sensor from the transmitter.

#### The Dräger PIR 7000 is efficient, stable and robust

With its stainless steel 316L enclosure and drift-free optics, the Dräger PIR 7000 is built to withstand the harshest industrial environments, offshore installations for example. The unique 4 beam signal stabilizing system makes the sensor resistant to dust or dirt deposits on the optical surfaces. Environmental and ageing effects ensure a long term, drift-free operation. The integrated gas library with up to 100 gases provides a high degree of application flexibility. Each of the listed gases can be picked from a menu and automatically crosscalibrated with a standard calibration gas such as methane or propane. No need to consult the factory when applications change.

### TECHNICAL SPECIFICATIONS

Type	Explosion-proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")
Gases	Flammable gases and vapours
Measuring ranges	Methane, propane, ethylene: 0 to 20... 100 %LEL Methane: 0 to 100 vol. %
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)
Signal output analogue	Normal operation: 4 to 20-mA
Temperature	-40 to 77°C without relay
Dimensions	w/o docking station: 280 x 150 x 130 mm w/ docking station: 280 x 180 x 190 mm
Weight	Aluminium w/o docking station: 3.9 kg SS316 L w/o docking station: 5.7 kg Aluminium w/ docking station: 5.2 kg SS316 L w/ docking station: 7.1 kg

# Dräger Polytron® 5700 IR

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Approvals

UL, CSA, IECEx, ATEX, CE marks

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## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron® 5700 IR 334 d A	1	8344220
Dräger Polytron® 5700 IR 334 d A relay	1	8344221
Dräger Polytron® 5700 IR 334 e A (incl. Docking Station)	1	8344224
Dräger Polytron® 5700 IR 334 e A relay (incl. Docking Station)	1	8344225
Dräger Polytron® 5700 IR 340 d A	1	8344240
Dräger Polytron® 5700 IR 340 d A relay	1	8344241
Dräger Polytron® 5700 IR 340 e A (incl. Docking Station)	1	8344244
Dräger Polytron® 5700 IR 340 e A relay (incl. Docking Station)	1	8344245

## Dräger PIR 3000



**Dräger PIR 3000**  
Explosion proof infrared gas detector

The Dräger PIR 3000 is an explosion proof infrared gas detector for continuous monitoring of combustible gases and vapors. Based on a stainless steel SS 316 enclosure as well as on a good measuring performance, this transmitter offers an excellent price-performance-ratio.

### Fail-safe infrared technology and low cost of ownership

The superior performance characteristics of infrared technology (such as poison immune and "fail-safe" operation) have been known and valued in gas detection for many years. The PIR 3000 now offers these performance benefits more affordably, combined with low maintenance costs and a long life time of more than 15 years, cost of ownership is significantly reduced.

### Smart and flexible

The PIR 3000 offers a gas library with three gas categories: methane, propane and ethylene. Therefore, nearly all hydrocarbons are detectable. In addition, temperature-compensated linearisation curves allow for signal output for individual substances.

Through optional accessories – e.g. the process adapter or the duct mount set – a multitude of measuring tasks can be performed professionally.

### Suitable for the harshest conditions

Based on its exceptional product quality, the PIR 3000 offers high reliability and excellent measuring performance, in relation to long-term stability. With GRP junction box and 316 stainless steel enclosure, a temperature range of - 40 to + 65 °C (- 40 to + 149 °F) and heated measurement optics driving off compensation from the lens, the PIR 3000 is suitable for all the worlds climate zones.

## TECHNICAL SPECIFICATIONS

Type	Explosion proof gas detector with infrared sensor technology
Working principle	Temperature-compensated infrared absorption
Gases and ranges	Methane, propane, ethylene: 0 to 100 %LEL (further substances on request)
Measuring performance (Methane)	Digital resolution: 0.5 %LEL, Repeatability: appr. 2 %LEL, Response time t0..90: < 30 seconds (with splash guard and calibration adapter)
Output signal	4 to 20 mA
Temperature	- 40 °C to + 65 °C
Material	Stainless steel, SS 316
Dimensions	170 mm x Ø 37 mm
Ingress protection	IP 65, IP 66 and IP 67
Approvals	ATEX, IECEx, UL, CSA, CE

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PIR 3000 (M25)	1	6810810
Dräger PIR 3000 (NPT)	1	6811080
Dräger PIR 3000 complete set e	1	6811160
Dräger PIR 3000 complete set e2	1	6811270
Dräger PIR 3000 complete set d	1	6811180

All transmitters are equipped with splash guard and calibration adapter. The complete set contains a junction box, already pre-assembled.



## Dräger PIR 7000



**Dräger PIR 7000**  
Explosion proof point IR detector

The Dräger PIR 7000 is an explosion proof point infrared gas detector for continuous monitoring of flammable gases and vapours. With its stainless steel SS 316L enclosure and drift-free optics this detector is built for the harshest industrial environments, e.g. offshore installations.

### Dräger PIR 7000

Two models of the Dräger PIR 7000 are available – type 334 and type 340. Each model works with a different measuring wavelength, thus giving the broadest possible range of detectable substances with superior accuracy.

### Advanced signal stability

Following the success of the most stable point infrared gas detector worldwide – the Dräger Polytron IR – Dräger now introduce the Dräger PIR 7000 which encompasses the latest in revolutionary technology. Based on patented innovations, the Dräger PIR 7000 combines a maximum light collecting construction with a 4-beam signal stabilising system. The total optical system uses no light beam split, simply a set of various reflectors. This double-compensating optical system is very resistant towards known influences such as dust, fog or insects frequently found in the measuring cuvette or by dirt accumulation on the optical surfaces. Due to its non-imaging construction, the measuring signal is not affected by a partial beam block. This innovative optical system ensures that the Dräger PIR 7000 fulfils the customer requirements of ›no false alarms‹, longer service intervals and a drift-free signal output.

### Fast response

Equally important is being informed about a potential hazard as early as possible. An early and reliable gas alarm allows for safety measures to be initiated on site. To support this, the Dräger PIR 7000 offers a configurable response mode which allows the end user to choose between ›normal‹ or ›high speed‹ response subject to the application. Using the ›high speed‹ option, and combining it with the lowest feasible alarm threshold, the Dräger PIR 7000 shortens the reaction time in case of an alarm. Leakages can be detected at the earliest stage of their existence.

### Multiple configuration capabilities

The Dräger PIR 7000 is delivered with the optimum default settings, but remains fully flexible to meet with the customers demands

on an application-by-application basis.

Whether it be reduced measuring ranges, configurable special signals (fault, beam block warning, maintenance), adjustable LEL values (values which are different across regions) all coupled with the configurable gas library (for other substances to be monitored) – all these features of the Dräger PIR 7000 offer the possibility to set up every device exactly to the customer's needs and preferences.

### Maximum reliability – SIL 2 certified

After almost two decades of experience with infrared technology, leading to a continuously enhanced product quality, the Dräger PIR 7000 is further advanced as the total product has been developed in line with the Functional Safety standard EN 61508. This is applicable to both the devices hardware and software.

Furthermore, the excellent parameters as detailed in the SIL 2 (Safety Integrity Level) certificate, issued by the German TÜV show that only 2 % from the entire SIL 2 budget is allocated to the field device, thus providing flexibility to choose control systems and actuators.

This is a new understanding of reliability – not only fulfilling but exceeding the SIL 2 requirements significantly.

### Features

- configurable gas library – methane, propane and ethylene fixed, up to 10 additional substances can be uploaded
- multiple mounting and configuration capabilities (signals acc. to NAMUR NE 43)
- precise and stable measurement
- fastest response of less than 1 second
- beam block warning in case of dirty optics for preventive maintenance
- long maintenance intervals
- extended temperature range of up to + 77 °C / + 170 °F
- double-compensating, non-imaging optics (using 4-beam technology)
- single cable multidrop capability using HART® communication
- conventional 4-to-20-mA analogue signal output
- hermetically sealed SS 316 L enclosure
- integrated tag holder for individual labelling

# Dräger PIR 7000

- no moving parts
- resistant towards shock and vibration up to 4 G
- continuous self-testing in the context of the IEC/EN 61508 standard
- developed and manufactured according to the SIL guidelines, SIL 2 certified by TÜV
- ex approvals for worldwide application: ATEX, IECEx, UL, CSA
- dust approval for zone 21 and 22
- typical lifetime greater than 15 years

## TECHNICAL SPECIFICATIONS

Type	Explosion proof gas transmitter with infrared sensor technology
Principle of operation	Temperature-compensated infrared absorption, 4-beam technology
Gases and ranges	Methane, propane, ethylene: 0 to 20...100 %LEL Methane: 0 to 100 % vol. Further substances and measuring ranges on request
Measuring performance (type 334, methane, 0 to 100 %LEL)	Digital resolution: 0.5 %LEL Repeatability: $\leq \pm 1$ %LEL Response time: $t_{0.90} \leq 4$ seconds ("normal response"), $< 1$ second ("fast response") Long-term drift: $\leq \pm 1$ %LEL after 12 months
Electrical data	Output signals: 4 to 20 mA, HART® Fault signal: $\leq 1.2$ mA (configurable) Beam block warning signal: 2 mA (configurable) Maintenance signal: 3 mA (configurable) Power supply: 13 to 30 V DC, 3-wire Power consumption: 5.6 W (typical)
Ambient conditions	Temperature: $-40$ to $+77$ °C / $-40$ to $+170$ °F (operating), $-40$ to $+85$ °C / $-40$ to $+180$ °F (storage) Humidity: 0 to 100 %RH Pressure: 700 to 1300 hPa / 23.6 to 32.5 inch Hg
Enclosure	Weight: 2.2 kg (without accessories) Dimensions: 160 mm x Ø 89 mm / 6.3 " x Ø 3.5 " Ingress protection: IP 66 and IP 67, NEMA 4X
Approvals	ATEX, IECEx, UL, SIL2, CE Mark

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PIR 7000 type 334 (NPT) HART®	1	6811552
Dräger PIR 7000 type 334 (M25) HART®	1	6811550
Dräger PIR 7000 type 334 (M25) HART®, complete set	1	6811817
Dräger PIR 7000 type 340 (NPT) HART®	1	6811562
Dräger PIR 7000 type 340 (M25) HART®	1	6811560
Dräger PIR 7000 type 340 (M25) HART®, complete set	1	6811819

## Dräger SAM 3100 3200

The Dräger sampling units were designed to measure the concentrations of toxic and potentially explosive substances in locations where access is difficult. All required components are already fitted to a mounting plate. To achieve maximum flexibility for a variety of applications, all Dräger transmitters with process adapter can be used.



### Dräger SAM 3100 3200

To achieve maximum flexibility for a variety of applications

#### Easy installation

All electrical connections lead directly to the components, and cables can be routed individually to suit the situation in hand. High quality compression fittings on the mounting plate make it quick and easy to connect the sample gas or air extraction line.

#### Straightforward one-man assembly

The sampling system comes fully assembled, and the plate can be attached in just a few simple steps by one person. Predrilled holes for fixing screws make easy work of wall-mounting and customer-specific assembly. The sample gas tubes can be installed quickly and easily without the need for screwdrivers.

#### Variable sampling concepts

The Dräger SAM 3100 and Dräger SAM 3200 units come equipped as standard with a non-explosion-proof sampling pump. From the same series, an explosion-proof pump can be chosen as an option. If process air is available, another alternative is to use a wear-free – and therefore maintenance-free – injector with pressure regulator. The gas flow to be measured is reliably monitored via the ring initiator with integrated connection housing.

### TECHNICAL SPECIFICATIONS

Mounting plate	Stainless steel, fitted with measurement head on request (see separate data sheet)
Dimensions	500 x 500 mm
Gas pump	
Air transport	Via membrane valves
Flow rate	7.5 L/min
Max. neg. pressure	140 mbar
Max. pos. pressure	1.5 bar
Weight	3.1 kg
Voltage / frequency	230 V AC / 50 Hz
Wattage	70 watts
Current consumption	0.45 A
Filter element	
Filter element length	75 mm
Filter surface area	70 cm <sup>2</sup>
Deadspace volume	65 cm <sup>3</sup>
Materials	Filter head: PVDF/PTFE Filter body: Glas Filter element: PTFE
Connections	3 x G 1/4" (1x sealed)
Flowmeter	
Measurement accuracy	± 2.5 % as per VDI/VDE 3513
Working pressure	10 bar max.
Connections	1/4" NPT internal thread
Cone	Borosilicate glass
Float	Nickel chromium steel

# Dräger SAM 3100 3200

## ORDER INFORMATION

Description	Unit Sales	Articles
Dräger SAM 3100	1	On request

# Dräger Alcotest 3820

The Dräger Alcotest® 3820 offers responsible drivers a reliable way to test their breath alcohol and gives them the assurance of being legal to drive. This is ensured by precise measurement technology identical to that used by the police: over 30 million breath alcohol tests a year.



**Dräger Alcotest 3820**  
Professional alcohol testing device for personal use

**Precision for over 60 years: the measurement technology used by the police**

Dräger has been the world market leader and professional supplier of breathalcohol measuring devices for the police and industry for over 60 years. The measurement technology in the Alcotest® 3820 is identical with that in devices used for highly precise breath alcohol tests.

Consistent advances in technology over six decades have made the Alcotest 3820 incomparably fast and reliable today. As a private user or professional driver you can simply pre-empt unpleasant surprises if your breath alcohol concentration is checked.

Over 30 million breath alcohol measurements are performed with Dräger instruments around the world each year. The high quality devices are Made in Germany.

**Fast and easy sampling**

The measurement function is simply activated with the back-lit function button. Optional audible feedback provides additional orientation. The device is ready to use in seconds and the breath test can be performed immediately. The same button is used to navigate through the menu.

**Replaceable mouthpiece**

The mouthpiece is intuitive to fit and protected by a cap. A new mouthpiece should

be used for each person being tested. Additional mouthpieces are available as accessories. The air channel passes the exhaled air over the device, and only a small sample of this air is drawn for analysis. This ensures that there is no residual alcohol in the device and that all measurements remain precise and reliable. The same method is also used by the police.

**Always ready for use**

On cool winter nights or a hot summer day: The device is ready for use almost immediately. The temperature range for measurements ranges from -5 °C to +50 °C.

**Handy and discreet**

Thanks to its compact design, the Alcotest 3820 fits into a trouser pocket. Therefore you can take a measurement discreetly at any time—no matter where you are. You always obtain a precise result when measuring the residual alcohol value, whether after a business lunch, at a party or the morning after.

**Designed for years of use**

- The Alcotest 3820 is Made in Germany and meets the highest quality standards. Regular calibration of the
- device ensures that the measurement technology will remain precise for a long time. The worldwide, regional
- Dräger service network ensures that you can keep using the device for many years.

**TECHNICAL SPECIFICATIONS**

Measuring principle	Electrochemical Dräger sensor for 1/4" technology, alcohol specific
Measuring range	0 to 5.00 ‰; if the limits of the measuring range are exceeded, a message is displayed
Sampling	Automatic sampling when minimum volume resp. blow time is reached; Automatic sampling when end of breath is reached; depending on configuration
Ready for use	Approx. 4 seconds after switching on
Display of the measurement results	After approx. 3 s (at 0.00 ‰); after approx. 10 s (at 1.00 ‰, room temperature)
Operating temperature	-5 to +50 °C / 23 to 122 °F
Relative humidity	10 to 100 % relative humidity (non-condensing and in operating state)
Ambient pressure	600 to 1,300 hPa / 17.7 to 38.4 inch Hg
Display	Graphic backlit LCD display; 32 x 22 mm / 1.3" x 0.9" (128 x 64 pixels)

## Dräger Alcotest 3820

LED	1 light emitting diode (LED) to support the indication of results and warning message
Audible signal	Various acoustic signals to support messages and warnings on the display
Datalogger	Memory of last 10 tests
Power supply	1 x CR123A-Battery, charge level indicator in display, with one battery approx. 1,500 breath tests can be done.
Mouthpiece	Hygienically and individually packed
Operating concept	Measurement functions can be performed using just one button
Calibration	Wet gas or dry gas calibration
Housing	Impact resistant ABS/PC
Dimensions (W x H x D), weight	Approx. 50 x 133 x 29 mm / approx. 130 g, incl. Battery
Vibration and shock	EN 60068-2-32
CE marking	2004/108/EC (electromagnetic compatibility)
Norms	EN 16280, EN 15964, NHTSA, FDA Conformity, depending on configuration
Integrated clock	To show calibration interval
IP protection class	IP52

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Alcotest 3820	1	8324922
Mouthpieces, 5 pieces	5	8325250

# Dräger Alcotest 5000

The Dräger Alcotest® 5000 is a professional breath-alcohol tester which detects the presence of alcohol. The high-speed breathalyser lets you perform numerous tests in no time. Its special funnel reduces the back-flow of expired air to a minimum, preventing the risk of infection to subsequent test subjects.



**Dräger Alcotest 5000**  
Professional alcohol testing device

**Maximum control in minimum time with our fastest ever breathalyser**

With the Alcotest® 5000, you can test up to 12 people a minute to determine whether they have consumed alcohol or not. Especially for police and private security professionals, testing large numbers of people for intoxication in a short period of time presents a major challenge: for example, during large-scale operations, entrance checks at work sites, and stadiums, entry points to public transport and airport security checks. In the case of a positive test result, exact blood-alcohol levels can be calculated if necessary using Dräger alcohol screeners or court-approved evidential devices.

**High-precision rapid alcohol testing with hygienic funnel design**

The alcohol test takes place without the need for bodily contact with the test subject. There is no need to attach and detach mouthpieces, because testing requires the subjects simply to blow into a funnel. With its unique design, this special Dräger Alcotest 5000 funnel prevents the back-flow of the subject's own expired air and the inhalation of any pathogens from previous test subjects. After use, the funnel attachment is easily exchanged, providing assurance of a hygienic solution.

**Alcohol testing with simple operation and convenient oversight**

With its easy-to-use, single-button operation via the OK button, the Alcotest 5000 is the

latest generation of Dräger's proven, simple-to-operate alcohol testing devices. Using its two additional arrow buttons, you can navigate easily and for example: view the latest test results, reset the test counter, check for the next scheduled calibration date, or set the menu to a different language. The instructions for the test process are language-neutral and easy to understand, thanks to symbols on the display.

**Breath-alcohol testing at a distance**

Where the tester and the test subject are not adjacent (for example, a driver seated in the cab of a lorry), the Alcotest 5000 features a ¼" thread on the back of the device where a standard selfie stick can be attached. This speeds up the breath-alcohol testing process. With just one change of batteries, the Alcotest 5000 can perform over 5,000 tests, whether actively (the test subject actively blows into the funnel attachment) and / or passively (for example, measuring alcohol in ambient air or suspicion of alcohol in beverages).

**Breath-alcohol testing at a distance**

With over 65 years of experience, Dräger is the global market leader in the field of breath-alcohol testing. Police in many countries use devices from the Alcotest product series in everyday traffic monitoring. The Alcotest 5000 is made in Germany and meets the highest standards of quality. It uses the same, professional EC sensor technology, ensuring precise test performance and secure results.

**TECHNICAL SPECIFICATIONS**

Measuring range	0 to 0.029 mg/L -> "Tick mark" symbol on the display screen means "No Alcohol Detected", visually supported by a green LED. From 0.030 mg/L -> "X" symbol on the display screen means 'Alcohol Detected', visually supported by a red LED. From 2.5 mg/L -> Measuring range exceeded (↑ ↑ ↑)
Standard sampling	Sampling starts automatically when the minimum volume or predefined blowing time is reached. Passive sampling can be done with or without a funnel. Sampling can be triggered manually while the test subject blows into the funnel.
Start-up time	Ready to use approx. 4 sec. after switching on

# Dräger Alcotest 5000

Display of the measurement results	After approx. 2 sec. (at 0 to 0.029 mg/L); after approx. 6 sec. (at e.g. 0.5 mg/L, at room temperature).
Measurement basis	Electrochemical DrägerSensor®, alcohol-specific
Display	Graphic LCD display with backlight 32 x 22 mm (128 x 64 pixel)
LEDs	Two-colours, for supporting test results and warning messages on the display
Acoustic signals	Various signal tones for supporting display and warning messages
Memory	Stores the latest 500 test results with test number, date and time
Energy supply	3x AA batteries, charge status shown on display; with the battery life from 3x AA batteries, more than 5,000 tests can be performed.
Funnel intake	Click adapter for funnel
Funnel	Hygienic, individually packaged with air outlets for minimising back-flow of expired air
Operating design	Test functions are started with the "OK" button; two arrow buttons are used to navigate through the menu.
Calibration	Wet- or dry-gas calibration with the Alcotest 5000 calibration adapter
Exterior	Impact-proof ABS/PC
Dimensions (W x H x D), Weight	Approx. 63 x 219 x 41 mm; approx. 245 g incl. funnel and batteries
Vibration and impact resistance	EN 60068-2-27, EN 60068-2-6; EN 60068-2-64
CE marking	EMC Directive
Standards	Contactless breath-alcohol testing devices are currently not subject to any standards
Internal clock	Warning 30 days before service interval expires
Service interval	24 months
Operating temperature	-15 °C to +50 °C
Air humidity	10 to 100 % relative humidity (not condensed and in operation)
Ambient pressure	600 to 1,300 hPa

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Alcotest® 5000	1	8327701
Alcotest® 5000 funnels, 10 pc., individually hygienically packaged	1	8327718



# Dräger Alcotest 5820

The Dräger Alcotest® 5820 allows the professional user to perform a breath alcohol test with speed and precision. The measuring technology of this small and user-friendly portable measuring device has already proven in over 200,000 units in use worldwide today.



**Dräger Alcotest 5820**  
Professional alcohol testing device

### Breath alcohol testing made easy

The device is ready to use within seconds. This means that you can perform an (active) test on a subject at any time. It is also possible to measure alcohol in the ambient air (passive), in which case a mouthpiece isn't required.

All functions required for a measurement are activated with the convenient green OK button, while two menu buttons are used for navigation.

### Versatile and tough

The tried and tested electro-chemical Dräger sensor in the Alcotest 5820 is distinguished by its very fast response times and a long service life. It operates with extreme precision and reliability. The analysis is reliable even at temperatures of -5 to +50 °C / 23 to 122 °F. The sensor also delivers reliable results quickly in case of a high alcohol content, for both active and passive measurements.

### Convenient to use

Dealing with intoxicated people requires a high degree of attention and concentration. An intuitive operation of the device is an important aspect for ease of use and smooth breath testing procedures.

All measurement functions can be operated with just one button to make it easier for you

to perform the test. The large back-lit display is easy to understand due to its full-text messages which guide you securely through the alcohol test. An LED and audible signal complement the display and indicate the end of a measurement process. Two menu buttons are used to navigate through the menu, enabling you to perform functions such as reviewing the last test results.

### Simply hygienic: the Slide'n'click mouthpiece

The sophisticated product design meets the requirements for performing the breath alcohol test quickly, easily and hygienically: The shape of the Slide'n'click mouthpiece allows you to intuitively fit it correctly, even in the dark. The Alcotest 5820 is ready to use again immediately after changing the mouthpiece. Furthermore, attempts at obstruction are consistently rejected by the device: The air outlet cannot be closed, foiling any attempts to manipulate the device when giving a breath sample.

A spacer on the mouthpiece keeps the lips of the person being tested from coming into contact with the device's housing. The spacer can also be used as a mouthpiece ejector if necessary. Mouthpieces with return valve are also available upon request.

## TECHNICAL SPECIFICATIONS

Measuring principle	Electrochemical Dräger sensor for 1/4" technology, alcohol specific
Measuring range	0 to 2.5 mg/L; if measurement range limit is exceeded, a message is displayed
Sampling	Standard: automatic sampling when minimum volume resp. defined blow time is reached; Passive sampling without mouthpiece or manual initiation of sampling possible
Ready for use	Approx. 2 s after switching on
Display of the measurement results	After approx. 3 s (at 0 mg/L); after approx. 10 s (at 0.5 mg/L, room temperature)
Operating temperature	-5 to +50 °C / 23 to 122 °F
Relative humidity	10 to 100 % relative humidity (non-condensing and in operating state)
Ambient pressure	600 to 1,300 hPa / 17.7 to 38.4 inch Hg
Display	Graphic backlit LCD display; 32 x 22 mm / 1.3" x 0.9" (128 x 64 pixels)
LED	2-colour, to support display of results and warning messages
Audible signal	Different signal tones to support display messages and warnings
Datalogger	Storage of last 100 tests with test numbers

# Dräger Alcotest 5820

Power supply	1 x CR123A-Battery, charge level indicator in display, with one battery approx. 1,500 breath tests can be done.
Mouthpiece adaption	Improved Slide'n'click mouthpiece attachment; can be fitted for right or left orientation
Mouthpiece	Hygienically, individually packaged, with tamper-proof, tamperproof air outlet, mouthpiece ejector and spacer between mouth and instrument housing
Operating concept	Measurement functions can be performed using just one button; menu navigation is via two menu button
Calibration	Wet gas or dry gas calibration
Housing	Impact resistant ABS/PC
Dimensions (W x H x D), weight	Approx. 50/60 x 141 x 31 mm / 2"/2.4" x 5.6" x 1.2"; approx. 150g / 0.33 lbs, incl. battery
Instrument configuration	Direct menu-guided configuration of instrument settings (PIN required) No additional PC software needed
Vibration and shock	EN 60068-2-27, EN 60068-2-6; EN600-2-64
CE marking	2004/108/EC (electromagnetic compatibility)
Norms	EN 15964, NHTSA, FDA Conformity, depending on configuration Warning or deactivation after end of service interval IP54

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Alcotest 5820	1	8325200
Protection cover	1	8324999
Dräger Alcotest mouthpiece (Slide'n'click) - Package with 100 pieces	1	6810690
Mouthpieces 'slide'n click', 250 pieces per unit	1	6810825
Mouthpieces 'slide'n click', 1,000 pieces per unit	1	6810830
Lithium battery (CR123A)	1	4543808

# Dräger Alcotest 6820

Alcotest 6820 is the logical successor to the successful Alcotest 6810. The compact hand-held measuring instrument Alcotest is quickly ready for use and is adaptable to international guidelines. With an even more sturdy enclosure and the proven Dräger sensor, Alcotest 6820 is a reliable partner for breath alcohol analyses.



**Dräger Alcotest 6820**  
Adapted to determine breath alcohol concentrations

### High-quality workmanship

A professional breath alcohol testing device must be able to withstand some abuse. The Alcotest 6820 new design and quality workmanship make this unit ideal for use in demanding conditions. Thanks to its durable material it is highly resistant to rough weather conditions such as cold or moisture, and it satisfies protection class IP 54.

### Proven quality

Alcotest 6820 is also equipped with the proven electrochemical Dräger sensor. This sensor is characterised by very short response times coupled with precision and durability. Test results are always reliable regardless whether the temperature is -5 °C or +50 °C. Even with a high alcohol content, the sensor provides fast accurate results. And this is true for both active as well as passive measurements.

### "Slide'n'Click" mouthpiece

The patented Dräger mouthpieces prevent any manipulation attempts. The optional return valve simultaneously ensures maximum hygiene. Alcotest 6820 uses the same reliable mouthpieces such as Alcotest models 6510 and 6810.

### Optional accessories

A wide strap supports safe and comfortable use of the Alcotest 6820 testing device. The strap can be attached to your belt or around the wrist and secured with either buckles or hook and loop fastener. Reflectors make it easier to locate the device in the dark.

### High user comfort

Testing intoxicated people requires a high degree of concentration. This is where the true value of an easy to operate device comes into play. All measurement functions are controlled with a single button. Easily understandable full-text messages on a large, backlit display guide you safely through the alcohol test. An LED display and acoustic signals support the visual display and report the completion of a test measurement. Two menu buttons are used for navigation and the collection of statistical data.

### Practical design

Alcotest 6820 offers a balanced, ergonomic design. Its compact form makes it especially easy to hold and operate with only one hand. The mouthpiece of the Alcotest 6820 unit is easily snapped into the holder even when it's dark thanks to its intuitive shape - regardless whether you are right-handed or left-handed or whether testing traffic moving on the right or left side of the road. The display is always in clear view. After use, the mouthpiece is just as easily and hygienically removed again.

### Data processing and documentation

The expanded memory capacity of Alcotest 6820 is able to record up to 5000 test results. An optical interface enables wireless transmission of data to the Dräger mobile printer directly on site. Data is transferable to the PC via USB connection and the same connection can be used to configure the device.

## TECHNICAL SPECIFICATIONS

Measuring principle	Electrochemical sensor
Measurement range	0 to 2.5 mg/L
Calibration interval	6 months
Sensitivity drift	Typically 0.6 % of measured value per month
Dimensions	80 x 140 x 35 mm
Weight	Approx. 195 gr

# Dräger Alcotest 6820

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Alcotest 6820 (test unit, 3 mouthpieces, 2 batteries, hand strap, plastic case)	1	8322660
Dräger Alcotest mouthpiece (Slide'n'click) - Package with 100 pieces	1	6810690
Dräger Alcotest mouthpiece (Slide'n'click) - Package with 250 pieces	1	6810825
Dräger Alcotest mouthpiece (Slide'n'click) - Package with 1.000 pieces	1	6810830
PSU (power source) 600 mA, 11 V, for charging NiMH batteries	1	8316991
PC connection cable for Dräger Alcotest Screener USB	1	8319715

## Dräger DrugTest 5000 analyzer

The Dräger DrugTest® 5000 system comprising two main components: the Dräger DrugTest® 5000 Test Kits and the Dräger DrugTest® 5000 Analyzer. The system is a fast, accurate means of testing oral fluid samples for drugs of abuse, such as amphetamines, designer amphetamines, opiates, cocaine and metabolites, benzodiazepines and cannabinoids, as well as precise diagnostic evaluation and data management.



**Dräger DrugTest 5000 analyzer**  
Easy, fast, reliable and safe drug detection

### Features

Reliable and easy to use, the Dräger DrugTest® 5000 Analyzer is a mobile measurement device for providing qualitative detection of drugs in the oral fluids collected using the Dräger DrugTest® 5000 Test-kits.

### Reliable and easy to use

Providing reliable and precise analysis of the Test Kit sample within just few minutes, this state-of-the-art optoelectronic system weighs less than 4.5 kg.

### Display

Featuring a user-friendly, menu-driven, illuminated display which can be easily read, even at acute angles. Eliminating the possible misinterpretation of results by ensuring that the only result visible is an accurate one, the full colour, user display interface can show one of five installed languages at any one time, this selection can be customized. The analyzer's integral data memory allows for up to 500 individual measurements to be stored.

### Data management

The Dräger DrugTest® 5000 Analyzer, with its simple three-key operation, can also be easily linked to a wide variety of data recording devices such as a PC, printer or barcode scanner. In addition to data management, a built-in self-test capability controls temperature, optics and general operation such as photo- and tilt sensors. With easily configured software, the flexible menu can also be quickly configured to meet the needs of different applications.

### Accessories

With its carry bag and transportation box, this mobile system is suitable as complete "substance abuse monitoring" setting for on-the-spot measures, supplied with Mobile Printer, keyboard, DrugTest® 5000 test kits, breath alcohol testing device, mouthpieces, system documentation among other supplies.

## TECHNICAL SPECIFICATIONS

Supply voltage	12 V DC (11 TO 15 V DC)
Current consumption	typically 3 A
Dimensions	200 x 250 x 220 mm
Weight	4.5 kg
Temperature	Operation: 5 to + 40°C Storage/transport: - 20 to + 60°C
Moisture range	5 to 95 %rh, non condensing
Interfaces	optical IRDA (printer), PS/2, USB Slave
Duration of one measurement	5 to 10 minutes, depending on the type of test
Storage capacity	500 data sets

# Dräger DrugTest 5000 analyzer

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger DrugTest 5000 Analyzer, including power and connection cable	1	8319900
Dräger DrugTest Kit (6-panel), set for 20 testkits, for detection of amphetamine (AMP), cocaine (COC), methamphetamine (METH), opiates (OPI), cannabis (THC) and benzodiazepene (BENZO's)	1	8319830
Keyboard "Compact" (PS/2, size appr. 28,2 x 13,2 x 2,4 cm) "QWERTY"- US international	1	8315497
Dräger Saliva Confirmation Kit	1	8323880
Dräger DrugTest 5000 carry bag, with extra space for Drugtest testkits, Dräger Alcotest 6510/6810, mouth pices and mobile printer	1	8322675
Vehicle cable 12V	1	8312166
USB connection cable	1	AG02661

## Dräger DrugCheck 3000

Use the Dräger DrugCheck® 3000 to find out within minutes if a person recently consumed certain drugs. The compact and quick saliva (oral fluid) based drug test yields reliable results affordably and easily. The non-invasive drug test kit does not require electricity and can therefore be used anywhere.



**Dräger DrugCheck 3000**  
Easy, fast, reliable and safe drug detection

### Drug test - obtain samples easily and safely

The Dräger DrugCheck 3000 consists of two components: an absorbent collector for obtaining a saliva sample, and a test cassette for the analysis. The test cassette contains the buffer liquid and a window with two test strips, which displays the control and test lines. The drug test itself is performed in three easy steps: swab the saliva sample, shake the test kit, wait for a brief incubation period, and then start the test. A colour indicator on the swab disappears as soon as it has absorbed enough oral fluid for a test.

As soon as the control lines appear in the window, you can read the results. If the test result is negative, a line will appear alongside the respective substance class (drug). This means that none of the target substance was detected in the sample. If a line fails to appear next to one of the substance classes, then the result for this substance is positive.

### Fast and sensitive drug analysis

Check individuals for up to six substance classes simultaneously with Dräger DrugCheck 3000: cocaine, opiates, amphetamine, methamphetamines/designer drugs (e.g. Ecstasy, MDMA), benzodiazepines (e.g. in prescription medicines) and cannabis (THC). Of all the substance classes listed, cannabis is the drug consumed most frequently and also the most difficult of all

compounds to identify (THC = delta-9-tetrahydrocannabinol). This is why the Dräger DrugCheck 3000 was optimised to detect THC, and now offers two measurement options: depending on the chosen waiting time (pre-incubation) of the test there is a fast option with a higher or sensitive option with a low THC cut-off. The entire drug test only takes 3 – 5 minutes.

### Unambiguous on-the-spot drug screening

Its compact pocket sized design makes the DrugCheck 3000 easy to transport. It can be made ready for use quickly and easily, and is suitable for flexible use applications such as roadside checks and testing in safetyrelevant workplaces\*. The test kit has no electrical parts, which makes the drug tester safe to use in hazardous areas and even as point-of-care-testing (POCT).

### Additional benefits

Dräger has decades of experience in alcohol measuring equipment and drug detection methods. For the DrugCheck 3000, Dräger employed the testing principle of the proven Dräger DrugTest® 5000 system, which reliably detects even minute traces of THC. The disposable DrugCheck 3000 test kit cannot be manipulated and is hygienic to use.

\*The DrugCheck 3000 is sold only for law enforcement purposes in the USA.

## TECHNICAL SPECIFICATIONS

Dimensions (w x h x d)	32 x 111 x 57 mm
Weight	< 30 g
Operating range	Operation: 0 °C to 30 °C (32 °F to 86 °F) at 5% to 95% relative humidity
Storage / transportation	4 °C to 25 °C (39 °F to 77 °F)
Time of measurement	Fast measurement: analysis < 3 minutes Sensitive measurement: analysis < 5 minutes
Selecting the measurement mode	Depending on the selected pre-incubation time and the desired THC cut-off fast or more sensitive reading.
Licenses / standards	Licensed as a medical product within the EU in accordance with Directive 98/79/EC on in vitro diagnostic medical devices (IVD). Outside of the European Union for non-medical use (Non-IVD) or for forensic use (only USA).

# Dräger DrugCheck 3000

## ORDER INFORMATION

Description	Unit Sales	Articlenr
DrugCheck® 3000 STK 5 IVD, 20 testkits in one package	1	8325500



## Dräger PA91 Plus

The Dräger PA91 Plus is a highly capable, yet reasonably priced, compressed air breathing apparatus set. The Dräger PA91 Plus breathing apparatus is ideal for use when working in environments where fire and smoke, toxic gases or a lack of oxygen is present. Designed and manufactured by the world leader in the field of respiratory protective equipment, the PA91 Plus provides you with the highest level of performance in a simple but effective package.



### Dräger PA91 Plus

A high level of performance

#### Comfortable carrying system

The carrying system has been orthopaedically designed and follows the contours of the back, ensuring the weight of the breathing apparatus set is concentrated on the hips and therefore reducing the risk of backstrain and fatigue. The backplate is constructed using a strong, moulded, composite polyamide material with carbon fibre and is anti-static, chemical and impact resistant. The harness is made from flame retardant polyester webbing, with centre adjustable buckle and independent shoulder straps. Moulded handles on the backplate provide greater manageability when transporting the set.

#### First breath activated

The Dräger positive pressure Lung Demand Valve is of a balanced piston design and is first breath activated. This provides a stable air supply with low breathing resistance and is extremely quiet in use. It has a wrap around silicone cover for added impact protection and is easy to service, clean and disinfect. The Lung Demand Valve also features a centrally positioned, easily located, positive pressure 'switch off' push button.

#### Complete compatibility

The carrying system incorporates an adjustable cylinder strap, which can accommodate cylinders of all sizes from 4

litres up to 12 litres in capacity. The strong polyester strap can also accommodate a twin pack cylinder arrangement as an option. There are no special tools or procedures required for adjustment, which uses a secure, proven cam-lock mechanism.

#### Pneumatic design

The high performance balanced first stage reducer can be used with 200 or 300 bar cylinders and provides excellent flow characteristics using a small, lightweight reducer body. It incorporates a unique, patented safety pressure relief valve and allows for the easy connection of accessories. Servicing is made easier due to simple plug-in connections.

#### Warning whistle and pressure gauge

The PA91 Plus comes complete with Dräger's unique medium pressure operated warning whistle, which provides a low pressure warning in excess of 90 dBA and is consistent down to 10 bar. There is a fully luminescent gauge and the whistle warning unit assembly is fully integrated into the gauge / hose.

#### Accessories

The PA91 Plus can be used with any Dräger full facemask and incorporates Dräger's latest Plus Lung Demand Valve.

### TECHNICAL SPECIFICATIONS

Weight	2.14 kgs
High pressure connection	200 bar or 300 bar, standard G5/8 as per EN 144-02. Other connections available to National Standards
Whistle warning unit	Pre-set by Dräger to between 560 bar to 600 bar
Approvals	MED, EN 136 and EN 137, 89/686/EEC (PPE), 97/23/EC (PED)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PA91 Plus	1	3350683
Dräger PA91 Plus: LDV with hose	1	3338702

# Dräger PAS Lite

For use in industrial applications where a simple, robust and easy to use breathing apparatus is required, the Dräger PAS® Lite Self-Contained Breathing Apparatus (SCBA) combines reliability with comfort and performance, as well as excellent service life and easy to maintain.



**Dräger PAS Lite**  
Reliable and constant performance

### Advanced technology

With a proven design and using the same high quality pneumatics as found in professional firefighter breathing apparatus, the Dräger PAS Lite ensures consistent high performance and reliability over the lifetime of the apparatus with minimal maintenance. The carrying system features an ultra lightweight, high strength carbon composite space-frame having excellent impact, heat and chemical resistance, as well as outstanding durability.

### Integrated hose design

Both the air supply and gauge hoses are mounted into the space-frame, thus reducing the risk of snagging and entanglement. This enables the user to change the hose position from one side to another to suit individual preference. The fully integrated hose design also means that hoses can be replaced easily and cost effectively.

### Efficient load distribution

Incorporating new materials that are shaped and formed to provide maximum comfort at both the shoulders and the waist, the carrying system has been developed to reduce back strain, stress and fatigue. The innovative harness design ensures an excellent weight distribution at the shoulders. The inclusion of durable rubber coated fabric provides excellent wearing comfort and chemical resistance, whilst also performing well during the flame engulfment test in line with EN137 Type 2.

### Service friendly

A number of unique design features ensure that downtime and costs are kept to a minimum during repair and maintenance. All major components of the Dräger PAS Lite are quick and easy to assemble and disassemble,

including the harness which is attached to the space-frame by a simple single-piece retention method. The reducer is contained in the space-frame for added protection and can easily be removed with simple tools. The harness is also highly resistant and impervious to chemicals, making decontamination and cleaning a simple, straightforward task.

### Proven, robust and flexible

In line with other Dräger breathing apparatus, the Dräger PAS Lite allows users to take advantage of the tried and tested systems that lie behind the best breathing apparatus in the world. Developed as a result of years of research and extensive user consultation, these benefits include the use of the same advanced pneumatics as used in the whole professional firefighting range of Dräger.

The Dräger PAS Lite can be further adapted to suit specific industrial applications. As well as standard fit easy to clean harness, integrated Lung Demand Valve (LDV) and pneumatic gauge complete with high pressure whistle warning unit at the base of the space-frame, electronic monitoring (Bodyguard II) or airline ready options such as the Dräger PAS ASV can be specified. Integrating easily with all Dräger PAS Airline equipment, this flexible breathing apparatus is also fully compatible with Dräger Panorama and FPS 7000 Face Mask ranges. Our SCBA is designed for use with single steel or carbon composite cylinders rated at 4 to 9 L, 200 and 300 bar. A number of secondary supply connections are available for use in rescue, decontamination or airline applications. The Dräger PAS Lite can also be fitted with a variety of electronic voice communication options.

## TECHNICAL SPECIFICATIONS

Weight	2.7 kgs
Dimensions	590 x 290 x 160 mm
Input Pressure	0 - 300 bar
Nominal 1st stage output pressure	7.5
1st stage output flow	> 1000 l/min

## Dräger PAS Lite

LDV output flow	> 400 l/min
Whistle Sound Level	> 90 dBA
Approvals	EN 137 2006 Type 2, EN 14593 pt1 (for PAS ASV), MED, SOLAS II-2, can be used in hazardous areas.

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Lite - A	1	3357774
Dräger FPS 7000 M2-PC-CR	1	R56200
Dräger PAS Lite: LDV with hose	1	3338702

## Dräger PSS 4000



**Dräger PSS 4000**  
Light, robust and simple to use

The Dräger PSS 4000 is one of the lightest professional self-contained breathing apparatus for firefighters. Combining comfort with exceptional pneumatic performance, this SCBA is designed for applications where simplicity and ease of use are crucial. Lightweight yet robust, and easy to don, the PSS 4000 provides outstanding breathing protection.

### Light, robust and simple to use

The Dräger PSS 4000 is one of the lightest professional self-contained breathing apparatus on the market and contains the same advanced technology and design philosophy as seen in our leading range of standard and extended duration professional breathing apparatus. Supported by a carrying harness with a quick release fastener and simple pull forward mechanism you can quickly and easily adjust the carrying harness.

### Enhanced carrying system

The extremely durable carrying system features our ultra-lightweight, high strength composite carrying space frame, which provides outstanding thermal, impact and chemical resistance properties. The professional carrying system of the harness follows the natural contours of the body, improving stability and reducing back strain, stress and fatigue. The system offers optimal comfort for the wearer's shoulders and waist with an even load distribution, which is comfortably and securely in line with the body's centre of gravity. Aside from maximum comfort, the Dräger PSS 4000 also uses the most rugged and durable materials available in order to minimize the impact of even the most hostile of environments.

### Maximum performance harness material

The Dräger PSS 4000 utilizes state-of-the-art harness materials, which have been designed to withstand the high wear and tear fire fighters face every day, while providing an enhanced level of comfort. By incorporating hardwearing stainless steel buckles and long-life blend webbing made from aramid fibre, it is ideally suited for extended wear and frequent use.

### Easy to maintain and service

Aside from being quick and easy to service, the Dräger PSS 4000 comes with various, innovative design features that help reduce downtime and unnecessary maintenance costs. This can be seen in all major components, which are simple and quick to remove and re-assemble. The harness is attached to the carrying frame by an

innovative single-piece retention method. For added convenience, the first stage pressure reducer is integrated into the carrying frame. The closed, single piece harness and waist pad design prevents excessive water absorption, which reduces cleaning and drying time, whilst optimising energy efficiencies.

### Integrated hoses

The medium pressure air supply and gauge hoses are completely integrated into the carrying-frame in order to reduce the risk of snagging and potential entanglement. This substantially improves security and safety while entering and working in confined spaces. An additional benefit is the ability to re-route the hoses from one side to the other in order to suit customer preferences for gauge access. This design feature also facilitates the easy replacement of each hose.

### Wireless option

Enhance your safety in the field with the Dräger Bodyguard 1500, an advanced personal alert safety system (PASS). This breathing protection control and non-motion-detector generates visual and acoustic alert signals if you are in distress. Furthermore the system provides a wireless data transmission between the pass and the monitoring devices. The backlit Tx Gauge wirelessly transmits its pressure data to the Bodyguard 1500 and also to the Dräger FPS 7000 Head-Up-Display (HUD) if being used. This feature provides automatic visual notification from the Tx Gauge and acoustic notification from the PASS when the air supply drops below user-defined limits.

### Additional options

The flexible, user-friendly high performance system combines both new and proven innovative technology. The Dräger PSS 4000 guarantees a lifetime of dependable service simultaneously minimizing the costs of ownership, while offering a broad choice of options for every eventuality.

# Dräger PSS 4000

## TECHNICAL SPECIFICATIONS

Weight	PSS4000 Pneumatic gauge: 3 kgs PSS4000 Tx gauge: 3.15 kgs
Dimensions	590 x 290 x 160 mm
Input Pressure	0 - 300 bar
Normal 1st stage output pressure	7.5 bar
1st stage output flow	> 1000 l/min
LDV output flow	> 400 l/min
Whistle activation pressure	50 - 60 bar
Whistle sound level	>90 dBa
Approvals	EN 137:2006 Type 2, ATEX 94/9/EC (I M1/II 1GD EEx ia I/II T4) (Ta = -30 °C to +60 °C), EN 61000-6-2, EN 61000-6-3

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PSS 4000 - Pneumatic Gauge	1	3363988
Dräger PSS 4000 SCS - TX Gauge	1	3363990

This is a modular product, ask our Sales department for support: telephone +31 (0)10 - 295 2740.

## Dräger PSS 5000

The Dräger PSS® 5000 SCBA is a new generation high performance breathing apparatus for the professional firefighter. Combining advanced ergonomics with a wide range of configurable options the Dräger PSS® 5000 provides the user with the comfort and versatility to meet the demands of first responders whenever breathing protection is required.



Dräger PSS 5000  
For professional firefighting

Utilizing the established Dräger PSS Pneumatics and cylinder strap design, the Dräger PSS 5000 combines established technology, state-of-the-art materials and innovative thinking to create a SCBA for virtually any application.

### Ergonomic carrying system

The Dräger PSS 5000 has been designed to be not only comfortable but also extremely stable during use in harsh firefighting environments. Incorporating a rigid harness connection to a fixed-height back plate, advanced harness materials and a pivoting waist belt, the Dräger PSS 5000 remains in position regardless of the task in hand.

### Advanced harness choice

The Dräger Standard (DS) harness is a cost effective option for everyday use, offering a high level of comfort and durability. Easy to don and doff materials and simple pull forward and down adjustment mechanisms make the DS harness a versatile option for a wide variety of applications.

The Dräger Professional (DP) utilizes materials to withstand the high wear and tear that firefighters face daily, whilst providing an enhanced level of comfort and function over the DS harness. Incorporating hardwearing stainless steel buckles and long-life Aramid blend webbing, the DP is ideally suited to extended wear and frequent use.

### Service friendly & easy to maintain

- to keep downtime and costs to a minimum during service and maintenance, the Dräger PSS 5000 incorporates a number of unique design features;
- Dräger's innovative Harness "slide and lock" mechanism facilitates fast and simple harness and waist pad connection/removal from the back plate, without the use of tools.
- the first stage reducer snap fit connection allows the pneumatics to be fitted or removed quickly and easily from the set.
- push in and out" hose clips allow swift removal of hoses from the harness pads for cleaning, without the need to remove the clip itself.

- closed, single piece harness and waist pad design to prevent excessive water absorption, reducing cleaning and drying time.

### Integrated and versatile hose routing

To minimize the risk of snagging and to guard against physical damage, both the gauge and air supply hoses are integrated within channels in the Dräger PSS 5000 back plate. The LDV, Gauge and Rescue hoses can now be routed over the left and/or right shoulders (2 hoses per side), allowing the Dräger PSS 5000 to be configured to any standard. Conventional waist mounted hoses can also be fitted making the Dräger PSS 5000 one of the most versatile SCBA's available.

### Wide variety of systems, configurations and accessories

Dräger has revolutionized the use of breathing apparatus by creating a range of components that can be selected in combination to meet the specific needs of the firefighter regardless of the task.

### It is also possible to add:

- Dräger Bodyguard 7000 electronic monitoring
- twin cylinder configuration
- quick-Connect (QC) cylinder connection
- chargeair quick filling
- secondary supply connections for rescue, decontamination and/or airline use
- PSS Merlin Modem
- PSS Rescue Hood
- And many more... (for a full list and information please refer to the Dräger CABE Family Catalogue)

### Electronic monitoring with the Dräger Bodyguard® 7000

The Dräger PSS 5000 has been designed to be fully compatible with the globally established Dräger Bodyguard 7000 electronic signal and warning unit, and the newly integrated PSS Merlin Modem. For maximum protection The Dräger Bodyguard 7000 has an innovative compact design that integrates the power supply and pressure sensor modules within the back plate,

# Dräger PSS 5000

creating a balanced weight distribution. Real-time monitoring of essential information such as timeto- whistle (based on current air consumption) and cylinder pressure is communicated via a lightweight handheld electronic gauge and display and/or, a

facemask-mounted Head's Up Display (HUD). Simultaneously this information can be transferred to an Entry Control Board via the PSS Merlin Modem, further enhancing firefighter and fire ground safety.

## TECHNICAL SPECIFICATIONS

Weight	3.85 kgs
Input Pressure	0 - 300 bar
Normal 1st stage output pressure	7.5 bar
1st stage output flow	> 1000 l/min
LDV output flow	> 400 l/min
Whistle activation pressure	50 - 60 bar
Whistle sound level	>90 dBa
Approvals	EN 137:2006 (Type2)

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PSS 5000 DS Bodyguard 7000, single cylinder strap, excluding LDV S Plus & Holder	1	3358349
Dräger PSS 5000 DP Pneumatic Gauge, single cylinder strap	1	3357845
Dräger PSS 5000 DS SCS , single cylinder strap	1	3357858

# Dräger PSS 7000



**Dräger PSS 7000**  
For professional fire fighting

Developed by professionals for professionals the new Dräger PSS 7000 represents a major leap forward in the evolution of breathing apparatus for the professional fire fighter.

### Complete, state-of-the-art personal safety system solution

Highlights include:

- Ready for telemetry operation with PSS Merlin system
- Available with standard mechanical gauge or Bodyguard 7000 electronic monitoring
- Comfortable yet highly durable shoulder and waist belt padding featuring a secure, high-friction surface to reduce slippage
- Sliding and pivoting waist belt assembly
- 3-point height adjustment
- Breathing hoses integrated in the backplate
- Reflective and photo-luminescent hose sleeves for improved visibility
- Quick release pneumatics, shoulder and waist belt assemblies for easy service and maintenance
- Optional Quick-Connect cylinder system for rapid exchange in the field and in the workshop

### Height-adjustable carrying system

The PSS 7000 has been designed for maximum comfort and stability during use in harsh fire fighting environments. Incorporating a rigid harness connection to a 3-point-height adjustment backplate, advanced harness materials and a pivoting waist belt, the PSS 7000 remains firmly in position regardless of the task in hand.

### Maximum performance harness material

The PSS 7000 utilizes new state-of-the-art harness materials which have been specially designed to withstand the high level wear and tear fire fighters subject them to on an almost daily basis. Incorporating sturdy stainless steel buckles and long-life Aramid blend webbing, it is well suited to extended wear and frequent use.

### Service friendly, low maintenance

To keep both downtime and costs to a minimum during service and maintenance, the PSS 7000 incorporates a number of unique design features:

- Dräger's innovative "slide and lock" harness mechanism facilitates fast and simple harness and waist pad connection/removal from the backplate without the need for tools.

- The first stage reducer snap fit connection allows the pneumatics to be fitted or removed quickly and easily from the SCBA.
- "Push in and out" hose clips allow rapid removal of hoses from the harness pads for cleaning without the need to remove the clip itself.
- Closed, single piece harness and waist pad design to prevent excessive water absorption, reducing cleaning and drying time.

### Versatile integrated hose routing

To minimize the risk of snagging and to protect against physical damage, both gauge and air supply hoses are run through integrated channels in the PSS 7000 backplate. The LDV, gauge and rescue hoses can now be routed over the left and/or right shoulders (2 hoses per side), allowing the PSS 7000 to be configured to any standard. Conventional waist mounted hoses can also be fitted, making the PSS 7000 one of the most versatile SCBA's available.

### Wide variety of system configurations and accessories

Dräger has revolutionized the use of breathing systems by creating a range of optional components that can be selected in combination to meet the fire fighter's specific needs regardless of the task. In addition to the standard features of the PSS 7000, it is also possible to add:

- Dräger Bodyguard 7000 electronic monitoring system
- Twin cylinder configuration
- Quick-Connect (QC) cylinder connection
- Chargair quick filling
- Secondary supply connections for rescue, decontamination and/or airline use
- PSS Merlin Modem for telemetry applications
- PSS Rescue Hood
- and many more

The Dräger Quick-Connect is a revolutionary, fast-action cylinder exchange system which features a dual mechanical and pressure seal safety mechanism designed to prevent accidental cylinder disconnect from the SCBA.



## Dräger PSS 7000

- The pressure seal locks the cylinder to the SCBA while the system is pressurized.
- The mechanical seal requires a dual action, twisting push motion to remove the cylinder from the reducer.

With Quick-Connect, a cylinder can be securely attached to the reducer with a simple push down action. Exchange times can be reduced from minutes to seconds which can make all the difference in an emergency situation. The danger of cross threading or thread stripping is eliminated, and workshop maintenance is greatly facilitated.

### Electronic monitoring with the Dräger Bodyguard 7000

The PSS 7000 has been designed to be fully compatible with the globally established Dräger Bodyguard 7000 electronic signal and warning unit as well as the PSS Merlin telemetry system. The Dräger Bodyguard 7000 features an integrated design concept which integrates both power supply and pressure sensor modules within the backplate. This not only creates a balanced weight distribution, but also provides maximum component protection. Real-time monitoring of essential information such as time to whistle (based on current air consumption) and cylinder pressure is communicated via a lightweight, handheld electronic gauge and display - and/or by a facemask-mounted head up display (HUD).

### TECHNICAL SPECIFICATIONS

Weight of complete set	approx 11.9 kgs, for Dräger PSS 7000 pneumatic gauge Complete with Dräger FPS 7000 facemask, lung demand valve and Dräger 6.8 litre 300 bar carbon composite cylinder (20 year design life)
Input Pressure	200 or 300 bar
Normal 1st stage output pressure	8 bar
1st stage output flow	> 1000 l/min
High pressure whistle activation pressure	50 - 60 bar
Whistle sound level	>90 dBa
Whistle frequency range	2000 - 4000 Hz
Bodyguard sound level	N/A
Operating temperature range	-32°C up to + 70°C
Approvals	EN137; 2006 Type 2 vřdb 0802  Atex I M 1 / II 1 GD IIC T6 (Ta -30°C to +60°C): for the Dräger PSS 7000 and Dräger Panorama Nova masks with triplex visor  Atex I M 1 / II 1 GD IIB T6 (Ta -30°C to +60°C): for Dräger PSS 7000 with all other Dräger Safety breathing apparatus masks

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PSS 7000 with standard cylinder strap	1	3355068
Dräger breathing apparatus S Plus	1	3338700
Lung Demand Standard type P	1	3357527

## Dräger REGIS® 300 and 500

Hands-free monitoring of respiratory protection of emergency and rescue teams: The boards REGIS® 300 and 500 enable the incident manager to keep track of respiratory equipment wearers and their deployment time. Thanks to an automatic intermediate alarm, monitoring can be combined with other tasks. In co-usage with the external tracer, distances of up to 40 m are possible.



### Dräger REGIS® 300 and 500

Hands-free monitoring of respiratory protection

#### Simultaneous monitoring of three teams

With Dräger REGIS, the incident manager is able to monitor up to three teams simultaneously, with up to three wearers per team. Easy to read displays with countdown timers inform about the remaining deployment time. The displays of both boards are illuminated with the touch of a button to ensure all important data is easy to see even in difficult conditions.

#### More safety with intermediate alarms

A continuous beep is emitted once the deployment time of a team is over. To aid with assigning the right alarm with the right team, the corresponding LED flashes. The acoustic and visual alarm tracer also emits an alert after 1/3 and 2/3 of the deployment time has expired.

#### External tracer for more ease of movement

Some incidents require that the person performing the monitoring must leave the vicinity of the board. In these cases, a highly visible external tracer can be combined with the board as an additional module. The built-in transmitter reliably relays any alarm signals emitted by the monitoring board to the external tracer for a distance of up to 40 meters.

#### Full deployment monitoring with simple documentation

Name of the equipment wearer, cylinder pressure at the beginning of the deployment, air supply, start and end of deployment time, as well as location: A clip attached to the board holds a sheet for entering all necessary data. The person performing the monitoring can later detach and file this sheet as needed.

Name tags can be attached with snap hooks to the lower end of the board for help in visualizing the team members. The color of the tags also provides information about the type of respirators used.

#### REGIS 500: Coding plugs for different applications

The deployment time may be shorter or longer depending on the type of respirator used. With the coding plugs for standard and short time respiratory protective devices, extended time respiratory protective device, or closed-cycle respiratory protective devices, the monitoring board panel can adjust automatically to a specific deployment time between 25 and 120 minutes. Simply insert the coding plugs into the corresponding slots and the countdown starts automatically.

#### Other advantages of the REGIS 300

- three backlit displays
- digital clock for real-time display
- customisable deployment time
- deployment time with negative sign starting at 0 minutes on display
- made from durable plastic
- corner protectors made of rubber
- labeling field with intuitive symbols
- clip to hold sheets and pen

#### Other advantages of the REGIS 500

- integrated Digital clock for real-time display
- additional intermediate alarm at deployment halftime and remaining time of 10, 5, and 0 minutes
- large backlit display
- rubber edge protectors on side and pen holdery

### TECHNICAL SPECIFICATIONS

Dräger REGIS® 300: Size (h x w x d)	40 x 34,5 x 4,5 cm
Dräger REGIS® 300: Weight	1,5 kgs
Dräger REGIS® 500: Size (h x w x d)	24 x 23 x 5,8 cm
Dräger REGIS® 500: Weight	0,9 kgs

# Dräger REGIS® 300 and 500

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger REGIS® 300	1	R55950
Dräger REGIS® 500	1	R54993

## Dräger Panorama Nova Standard P

The Panorama Nova full-face mask has been successful in the market worldwide for decades and provides reliable and secure protection. In combination with a compressed air breathing apparatus or rebreather it is used as a tried and tested face piece by firefighters and in mining.



### Comfortable fit combined with double sealing line

Features a double sealing line for maximum safety which adapts well to different head and face shapes.

### Many different uses

With the different connection piece options, the Panorama Standard can be used as a standard mask for filters, compressed air breathing apparatus, airline systems as well rebreathers for firefighters, mining or, in industrial applications.

### Robust and durable

For decades the mask has fared well in any extreme and rough condition in which the different target groups and user groups (industry, firefighters and mining) operate and has withstood many different impacts.

### System integration

With the option to choose a mask with different connections and wearing systems, as straps or helmet adapters, it will fit perfectly into the system, consisting of helmet, mask and respiratory system (compressed-air breathing apparatus, closed-circuit breathing apparatus or filter).

### Dräger Panorama Nova Standard P

Meets the highest demands for reliability

### TECHNICAL SPECIFICATIONS

Material of mask body	Highly resistant and hypoallergenic EPDM
Weight	Approx. 500 gr
Visor	Scratch-proof PMMA (Plexiglas) with 180° wide-angle
Connection	Made of robust plastic with inhalation and exhalation valve. Dräger plug-in connector for positive-pressure lung demand valve
Approvals	EN 136 Class 2 (CE mark), NIOSH, AS/NZS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Panorama Nova Standard P	1	R54450
Anti-fog agent, for all visors	1	R56542
Panorama Nova: spectacle kit	1	R51548
Transportbox Mabox II	1	R54610

# Dräger Panorama Nova P

If the oxygen content drops below 17% by volume during hazardous duties, the Panorama Nova P mask, e.g. in connection with our compressed-air breathing apparatus, supplies its carrier quickly and safely with vital breathing air.



## Applications

Special accessories, the simple maintenance of all mask parts and possible adaptation to the Dräger HPS 6100 fireman's helmet mean that the Panorama Nova P full mask can be used over a wide range of applications.

## Features

If less than 17% by volume oxygen (depending on regional regulations) is available at the workplace or the hazardous substances and/or their concentrations are unknown or too high, the Panorama Nova full face mask is deployed. A special harness ensures that the mask is particularly easy to don.

Quickly and comfortably a lung demand valve is then connected by means of the mask's

plug-in connector. The mask is immediately supplied with air from compressed-air cylinders or stationary compressed-air systems (both positive pressure).

## Safety

The double sealing frame of the Panorama Nova P ensures a particularly comfortable and tightly sealed fit. Furthermore the positive pressure in the mask prevents hazardous substances from penetrating.

User safety is therefore distinctly increased. To match the specific type of duty and requirements, the mask body is made either of silicone or EPDM, the visor is either made of polycarbonate or triplex.

## Dräger Panorama Nova P

Can be used over a wide range of applications

## TECHNICAL SPECIFICATIONS

Mask body material	Either EPDM or silicone
Visor material	Either impact-resistant polycarbonate, coated polycarbonate or particularly chemical-resistant triplex glass
Connection	Made of robust plastic with inhalation and exhalation valve. Dräger plug-in connector for positive-pressure lung demand valve
Weight	Approx. 550-650 g (depending on the visor)
Approvals	in accordance with EN 136 (CE symbol) and NIOSH

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Panorama Nova P EPDM	1	R52972
Dräger Panorama Nova P Triplex	1	R52992

## Dräger FPS 7000

The Dräger FPS 7000 full-face mask series sets new standards in terms of safety and wearing comfort. Thanks to its enhanced ergonomics and the availability of multiple sizes, it offers a large, optimized field of vision and a very comfortable, secure fit.



**Dräger FPS 7000**  
Large field of vision

### Field of vision and mask body

The modern full-face mask Dräger FPS 7000 has a large distortion-free polycarbonate visor, which provides you with an exceptional wide field of vision, even in difficult situations. The visor does not mist due to a well thought-out air circulation and is available with different coatings. The mask body made of either hypoallergenic Silicone or EPDM provides an especially comfortable fit.

### Fit

The full-face mask Dräger FPS 7000 has an outstanding head and face fit. The ergonomic head harness and the double sealing line ensure a secure and comfortable fit on all face shapes and contours. The head harness of the Dräger FPS 7000 also ensures that the mask can be donned and doffed easily and quickly.

### Mask-helmet combination

For those who use mask-helmet combinations the newly developed adapter offers a new level of safety. For example, when combining the Dräger HPS 6200 / 7000 with the new full-face mask, the newly developed and patented Dräger Q-fix connection prevents

the unintentional release of the attachment. Integrated accessories The newly developed communication system Dräger FPS-COM optimally adapts to the design and ergonomics of the mask. Depending on what is required, it can be chosen with different modules and offers the optimal solution for each communication in the field. Whether radio, voice, amplifier or head-up display, everything can be directly integrated into the mask and is easy to use.

### Modularity

Naturally, Dräger Safety pays close attention to our customers needs. The full-face mask Dräger FPS 7000 is not only safer and more comfortable; it also has more flexible options than previous models. Whatever may be needed during operation: It is quickly attached and ready for use.

### Maintenance

The special accessories and simple maintenance of all mask parts make the Dräger FPS 7000 not only very economical and easy to service, but also flexible and versatile in its use.

## TECHNICAL SPECIFICATIONS

Mask body	Convenient, hypoallergenic and flexible silicone or EPDM (dermatologically tested)
Harness	5-point connection with a large contact surface area at the back of the head, alternatively a hairnet
Mask-helmet combination	2-point connection for Dräger HPS 6200 either with Dräger Q-fix (with safety button) or with Dräger S-fix (without safety button) connection
Size	Mask body in 3 sizes (S, M and L) compatible with inner mask in 3 different sizes
Visor	polycarbonate visor available with different coatings
Connector	P, RA, ESA, PE and RP
Weight	approx. 600 gr (varies according to version)
Approval	EN 136 Class 3

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger FPS 7000 P-EPDM-M2-PC-CR	1	R56200
Dräger FPS 7000 M2-PC-Q-fix, size M	1	R56850
Dräger FPS 7000 S1-PC-CR	1	R56249
Dräger FPS 7000 L2-PC-CR	1	R56300

## Dräger Marine Cylinder Steel EFV

Steel, seamless cylinder complete with Excess Flow Valve (EFV) and protective cap.



### Excess flow valve (EFV)

An excess flow valve (EFV) is an option available for air cylinders. When fitted, the excess flow valve is a safety device which prevents uncontrolled release of high-pressure air in case of cylinder valve or high-pressure air pipe damage. The excess flow valve also activates if the cylinder valve is opened when the cylinder valve outlet is open to atmosphere. Cylinder valves containing an

excess flow valve have a grey hand wheel in most countries.

### Safe transport

Furthermore we advise to fit a protective valve cap when cylinders are stored or transported. When carrying the cylinder, you can hold it at the bottom of the valve. Do not carry the cylinder by holding the hand wheel.

### Dräger Marine Cylinder Steel EFV

Designed for 300 bar

### TECHNICAL SPECIFICATIONS

Fill pressure	300 bar
Wire type cylinder neck	M 18 x 1.5
Valve connection	5/8"G conform DIN 477
Capacity	6 liter
Weight	7.1 kgs
Dimensions	510 x 140 mm
Colors	Yellow with black and white patches on cylinder
Approval	CE-0045

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Marine Cilinder Steel EFV, 6 liters, 300 bar	1	3355002

# Dräger Marine Cylinder Steel

Steel, seamless cylinder.

## Feature

designed for 300 bar pressure



## Dräger Marine Cylinder Steel

Designed for 300 bar

### TECHNICAL SPECIFICATIONS

Fill pressure	300 bar
Wire type cylinder neck	M 18 x 1.5
Valve connection	5/8"G conform DIN 477
Capacity	6 liter
Weight	7.1 kgs
Dimensions	510 x 140 mm
Colors	Yellow with black and white patches on cylinder
Approval	CE-0045

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Marine Cilinder Steel, 6 liters, 300 bar	1	38S1109



## Dräger Composite Air Cylinders

Designed using leading technology and advanced materials, Dräger's range of Composite Cylinders can be used in any application where breathing becomes difficult or impossible.



### Dräger Composite Air Cylinders

Can be used in any application where breathing becomes difficult or impossible

#### Features

Through continuous product improvement and investment in technology, Dräger provides the highest quality pneumatics, carrying systems and high performance, ultra lightweight, carbon composite cylinders. Because Dräger manufacture all elements of the breathing apparatus system – masks, carrying systems, pneumatics and cylinders – you can be assured of the highest quality and maximum performance.

Dräger cylinders are manufactured and tested using automated, computer controlled processes. Continuous re-investment in plant and equipment ensures that Dräger cylinders are manufactured and tested in accordance with the most technologically advanced processes available. Automatic data collection ensures full traceability of materials used and the effective monitoring of critical process parameters.

#### Aluminium liner

These ranges of cylinders are manufactured from a seamless aluminium liner, which is

subsequently over wrapped with carbon and glass fibres. The aluminium liner is cold drawn from AA 6061 aluminium plate and then wrapped with carbon fibre in an epoxy matrix, using a computer controlled 4 axis wrapping machine.

#### Glass fibre

An external layer of glass fibre in an epoxy matrix is then wrapped onto the cylinder. This external layer of glass fibre is applied to enhance the resistance of the cylinder to impact and abrasion in service. Following a high temperature curing of the epoxy matrix, an external gel coat is applied to the surface of the cylinder. This coating provides a smooth, easily cleaned surface for the cylinder. Every batch of 200 cylinders is subjected to exhaustive testing in accordance with the legislative design and manufacturing codes (EN 12245 and 97/23/EC), under the supervision of a Notified Body. All relevant production data is retained electronically for the full working life of the cylinder.

### TECHNICAL SPECIFICATIONS

Water Capacity	6 liters
Free Air Capacity	1.636 liters
Working Duration	41 min
Nominal Duration	31 min
Service Pressure	300 bar
Weight	3.7 kg
Dimensions	492/495 x 152.5/154.0 mm
Design Life	20 years
Thread	M18 x 1.5
Approval	EN12245:2002

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Composite Air Cylinder, 6 liters, 300 bar	1	3353732
Dräger Cylinder KSF 6.8 liter, 300 bar	1	3353733
Dräger Cylinder KSF 9.0 liter, 300 bar, STD	1	3353734
Dräger Cylinder Carbon Composite, 9 liter, 200 Bar	1	3354631

# Dräger Cover for Air Cylinder

Dräger Nomex cover for air cylinder.



## Features

- nomex cover with Kevlar closing cord
- retro reflective striping for better visibility

- protects air cylinder against mechanical and heat stress

## Dräger Cover for Air Cylinder

Protection against mechanical and heat stress

## TECHNICAL SPECIFICATIONS

Material	Nomex
Color	Blue

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Cover for Air Cylinder for 6 liter	1	3811016
Dräger Cover for Air Cylinder for 6.8 liter	1	3811017

## Dräger FPS-COM 5000

Because there is no time for misunderstandings in an emergency: The Dräger FPS®-COM 5000 communication unit has been specifically developed for the full-face mask Dräger FPS® 7000 and ensures clear communication through a voice amplifier unit or radio device – even under extreme conditions.



### Dräger FPS-COM 5000

For clear audibility by voice amplifier or radio

#### Voice only - nothing else

The Dräger FPS-COM 5000 allows you to communicate without any interference, even in the loudest environment. The digital noise reduction technology filters out any interference that may reach the microphone inside the mask or any acoustic feedback that may occur. In particular, breathing sounds are not transmitted to the voice amplifier or the radio. This prevents any misunderstanding so you can fully concentrate on your mission.

#### Open to different communication channels

Use the attached jack to connect the Dräger FPS-COM 5000 to more than 350 different radio sets via the external Dräger C-C440 push-to-talk button or the Dräger C-C550 remote speaker microphone. Alternatively, you can connect the Dräger FPS-COM 5000 directly to the radio and use the built-in, push-to-talk button. To reduce the risk of snagging, the device can also be connected to specified radio sets via Bluetooth.

#### High reliability, low costs

Did you forget to turn off the Dräger FPS-COM 5000 after work? No problem: the communication unit shuts off automatically if there is no breathing sound for ten minutes (after a pre-alarm). This increases the battery life, lowers maintenance costs, and ensures

that your equipment is ready for use when needed.

#### Communication lasts several hours

In combination with the Dräger PSS BG 4 plus, which can supply you with breathing air for up to four hours, the Dräger FPS-COM 5000 also keeps you in contact with your colleagues during extended missions. Even during complex tasks, you can discuss the subsequent procedure with your mission leader without having to interrupt your task.

#### Assembly without special tools

With the newly developed click-lock system, the Dräger FPS-COM 5000 is attached and removed in just a few steps. Nevertheless, the communication unit does not need to be removed for manual cleaning as it is protected against the ingress of water or humidity according to IP67.

#### Perfect fit for clear speech

The earpiece must fit as closely as possible to make sure important information is not lost and that no radio messages need to be repeated during a mission. The flexible gooseneck earpiece of the Dräger FPS-COM 5000 can therefore be adapted individually to suit your head shape – for a perfect fit and excellent audio quality.

### TECHNICAL SPECIFICATIONS

Weight	depending on variant 250 to 320 g (without battery)
Battery types	2 x AAA
Operation time	approx. 32 hours (dependent on talk activity)
Ambient conditions for storage	-15 °C to +25 °C, 700 to 1,300 hPa, 10 to 95% relative humidity
Protection class	IP 67
Approvals	CE, EN 136, EN 137 Type 2, EN 145, IEC 60079-11: Ex I 1 M1 ia IIC T4/Ex ia IIC T4 Ga T=-30 °C ... +50 °C UL913: Class I, II, III, Div 1 Group A-G

# Dräger FPS-COM 5000

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger FPS®-COM 5000	1	R62700
Dräger FPS®-COM 5000 with negative pressure face mask	1	R62701
Dräger FPS®-COM 5000 with positive pressure face mask	1	R62702
Dräger FPS®-COM 5000 with a rebreather face mask	1	R62703

## Dräger FPS-COM 7000

The Dräger FPS®-COM 7000 provides hands-free communication for all wearers of respiratory protection devices during a mission. Excellent voice quality is achieved by removing interfering noises.



### Dräger FPS-COM 7000

For clear audibility by voice amplifier or radio

#### For missions under the harshest conditions

For missions requiring respiratory protection you have to expect extreme conditions: thick smoke and noise-obstacles that not only cause stress but also significantly hinder any form of communication. This is even more difficult if a chemical protective suit is required: these suits restrict movement and suppress your voice. The Dräger FPS-COM 7000 in connection with the proven full-face mask Dräger FPS 7000 was developed especially for these applications. Each word is transmitted clearly and intelligibly to the members of the team.

#### Noise suppression for optimum voice quality

The newly developed digital noise reduction automatically suppresses ambient noises and only transmits your voice. In particular, breathing noise is filtered out preventing it from being transmitted to the voice amplifier or the radio. The integrated loudspeakers, with which you can interact directly with the injured people and team members without radio equipment, also have this function.

#### Wireless connection to the incident commander

Each Dräger FPS-COM 7000 has an integrated PTT button (push-to-talk) to operate a radio that can be connected as an option. You can communicate using a tactical radio by pressing just one button. The tactical radio can be connected with a cable or Bluetooth. The latter means that there are no cables that could become entangled; reducing the risk of snagging.

#### Hands-free team communications

The Dräger FPS-COM 7000 allows fast and efficient communication within one group or among different ones. And it works without pressing a single button. This improves your safety by not distracting you from your task. The voice-activated function also provides full-duplex communication. This means that you can talk and listen at the same time – as if you were on the phone.

If there is only one radio for the entire group, the system allows the automatic transfer of the received instructions for up to ten group members via short-range radio. This means

that only one member of the group needs a tactical radio while everyone is still informed immediately.

#### Easy operation and individual setup options

The Dräger FPS-COM 7000 was developed with a focus on ergonomic handling and intuitive operation. The set radio group is announced via the earphones. In addition, different alarm tones warn of low battery status or if you are out of range from the team communication. An optional software allows numerous setting options with which you can adapt the system to your precise operation. You can, for example, define the number of groups. With the integrated switch you can switch between up to seven groups during the mission.

#### Robust and balanced

The robust communication unit adapts seamlessly to the Dräger FPS 7000. The robust design of the Dräger FPS-COM 7000 can resist even strong shocks and impacts. It is resistant to extreme temperatures and has protection class IP67. This means the Dräger FPS-COM 7000 is waterproof and can be easily cleaned after the operation. In addition, the balanced weight distribution prevents neck muscles from straining and increases wearing comfort – without restricting movement or limiting your field of view.

#### Flexibility before, during and after the mission

Thanks to its click connection that is easy to operate, the Dräger FPS-COM 7000 can be attached and removed in only a few steps – within seconds and without special tools. This allows greater flexibility to interchange between different face masks which can quickly be ready to operate by simply removing the protective cap. Therefore, you do not require a separate communication unit for every face mask. The device is easy to clean and maintain due to its easy assembly and distanced position between microphone and face seal.

# Dräger FPS-COM 7000

## TECHNICAL SPECIFICATIONS

Weight	depending on model 250 - 320 g (without battery)
Wireless frequencies	863 – 865 Mhz or 902 – 928 Mhz (Country specific, dependant on frequency allocation plan)
Transmission power	10 mW
Radio coverage	approx. 100 m free field, approx. 30 m in indoor
Number of talk Groups	configurable, max. 10 in one device
Communication type	voice-activated, duplex
Battery types	2 x AA batteries
Operation time	approx. 8 hrs (Dependent on talk activity)
Ambient conditions for storage	-15 °C to +25 °C, 700 to 1,300 hPa, 10 to 95 % rel. humidity
Protection class	IP 67
Approvals	EN 136 class 3 EN137 type 2 ATEX: Ex II 1 G, Ex ia IIC T4/ T3 Ga (Ta = -30 °C ... +50 °C) IECEx: Ex ia IIC T4/ T3 Ga (Ta = -30 °C ... +50 °C) CAN/CSA: Class I, Div. 1, Groups A-D T3/T4 CE 2004/108/EC, 1999/5/EC, 94/9/EG

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger FPS®-COM 7000	1	R61100
Dräger FPS®-COM 7000 with positive pressure face mask	1	R61300
Dräger FPS®-COM 7000 with negative pressure face mask	1	R61350

# Dräger C-C440

Control unit with large Push-To-Talk button for easy handling of the radio transmitter. Tough and robust design according to IP67 / MIL-STD-810G standards. Specially designed for deployments using chemical protective suits. ATEX versions available.



**Dräger C-C440**  
Easy to operate

**Push-To-Talk button**

The large pressure area enables secure voice transmission in any situation, even when the C-C440 is operated via the equipment or worn under protective clothing.

**Sturdy connection socket**

As a sturdy and robust quick-connect socket, the C-C440 can be combined with any of the upper units allowing connection to different types of radio devices.

**Robust and water-repellent**

The C-C440 has been designed to be particularly sturdy and robust for many different applications as well as being watertight, complying with IP67 / MIL-STD-810G requirements.

**ATEX approved**

Should the system need to be used in environments where there is a potential explosion hazard, the C-C440 is designed in such a way that it meets ATEX requirements and has ATEX approval.

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Dräger C-C440 Communication Unit	1	On request
Contact our Sales department for order information.		

## Dräger C-C550

Control unit for the tactical transmitter with integrated loudspeaker and microphone. Can be hooked up to a number of receiver models. Its strong and robust design is IP67 / MIL-STD-810G approved. Allows for independent deployments with the radio receiver (also without attached headset). User-friendly with two PTT buttons. ATEX versions available (regardless of radio transmitter type).



### Integrated microphone and speaker

The integrated microphone and the integrated speaker enable the use of the C-C550 without the upper unit.

### Sturdy connection socket

As a sturdy and robust quick-connect socket, the C-C550 can be combined with any of the upper units allowing connection to different types of radio devices.

### Robust and water-repellent

The C-C550 has been designed to be particularly sturdy and robust for many different applications as well as being

watertight, complying with IP67 / MIL-STD-810G requirements.

### ATEX approved

Should the system need to be used in environments where there is a potential explosion hazard, the C-C550 is designed in such a way that it meets ATEX requirements and has ATEX approval.

### Two large Push-To-Talk buttons

The two large push-to-talk buttons enable secure voice transmission whether the C-C550 is operated via the equipment or worn under protective clothing.

### Dräger C-C550

Transmitter with integrated loudspeaker and microphone

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger C-C550 Communication Unit	1	On request
Contact our Sales department (+31 10 295 2740) for more information about this product.		



# Dräger Saver CF15

The Saver range of Emergency Escape Breathing Apparatus has been designed using the latest technologies available whilst still bearing in mind our three leading principles; reliability, quality and ease of use. The Saver CF constant flow emergency escape breathing apparatus allows safe, effective and uncomplicated escape from hazardous environments with the minimum of user training.



## Dräger Saver CF15, with storage box

Designed with one thing in mind, to save lives

### Automatic activation

The unit is automatically activated on opening the carrying bag and can be simply re-set in the event of false alarm.

### Long life neck seal

The air hood neck seal is ozone resistant ensuring high levels of protection, even after storage.

### High visibility

The unit is contained in an instantly recognisable orange carrying bag, incorporating photo luminescent panels allowing the unit to be seen at very low ambient light and visibility levels.

### Easy inspection

The cylinder contents gauge is clearly visible without any dismantling or adjustments to the unit due to a transparent viewing window located on the side of the bag. This allows for quick and simple cylinder contents inspection.

### Made to measure

The Saver CF has been especially designed to be as easy to don as is possible, regardless of face shape or size and is suitable for users with glasses or facial hair.

### Design

Utilises a simple fail-safe reducer system with excellent flow characteristics giving a consistent air flow rate at all cylinder pressure levels. The combined diffuser and exhalation valve account for excellent air supply combined with a very streamlined hood profile. The easy to don flame retardant hood incorporates a wide visor for enhanced peripheral vision and a long life ozone resistant neck seal.

The Saver CF is extremely compact in design providing greater freedom of movement.

### Carrying bag

The high visibility orange carrying bag incorporates photo luminescent panels, is interchangeable for either chestbag or bandoleer positions, washable, flame retardant and allows water to self-drain.

### Low contents warning

A warning whistle sounds when the unit is nearing the end of its air supply.

### Optional: Storage box

Storage box for EEBD complete with photo luminescent sign.

## TECHNICAL SPECIFICATIONS

### Dräger Saver CF15

Dimensions	490 x 160 x 250 mm
Weight	5.2 kgs
Max. pressure	200 bar
Working temperature	-15°C to 60°C
<b>Storage box</b>	
Dimensions	740 x 280 x 220 mm (l x w x d)
Weight	1.3 kgs

# Dräger Saver CF15

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Soft bag version: Dräger Saver CF15	1	3359735
Soft bag version: Dräger Saver CF15 (SE) Anti-Static	1	3359743
Hard case version: Dräger Saver CF15	1	3359740
Cabinet for Dräger Saver CF15	1	3351823
Saver CF15: Storage bag	1	3350519
Saver CF15 SE: Anti-static bag	1	3360341
Saver hood and hose assembly	1	3350441
Saver CF: Valve Assy	1	3350484
Safety Wash, 5 liter dispenser	1	3380166
Safety Wash, refill 5 liter	1	3380167

# Dräger Saver PP15

The Dräger Saver range of Emergency Escape Breathing Apparatus has been designed using the latest technologies available whilst still bearing in mind our three leading principles; reliability, quality and ease of use. The Dräger Saver PP provides breathing air for 10 or 15 minutes, according to cylinder size.



## Dräger Saver PP15

Positive pressure emergency escape equipment

### Safe

The Dräger Saver PP is a positive pressure Emergency Escape Breathing Apparatus (EEBA), incorporating a Panorama Nova facemask. Developed with safety in mind it has been especially designed to be used in conjunction with other forms of Personal Protective Equipment like safety helmets and ear protectors, with little or no encumbrance.

### Compact

The Dräger Saver PP is extremely compact in design providing greater freedom of movement and ease of storage. The unit is contained in an instantly recognisable orange carrying bag, incorporating photoluminescent panels. This allows the unit to be seen at very low ambient light and visibility levels.

The carrying bag is interchangeable for either chestbag or bandolier wearing positions. It's also washable, flame retardant and waterproof.

### Activation

Activation and donning are made as uncomplicated as possible to allow for a safer escape. Simply open the carrying system and the Dräger Saver PP is instantly activated. It can be easily re-set in the event of false alarm.

The Dräger Saver PP comes equipped with the Panorama Nova facemask, part of the Dräger product portfolio. The elasticated head

harness on the Dräger Panorama Nova means the escape set is easier and quicker to don in emergency situations.

### Features

- the Dräger Panorama Nova positive pressure face mask offers a higher level of protection, providing low exhalation resistance
- a close and comfortable fit
- self demisting visor for clear vision

### Warning whistle

During an escape situation a warning whistle sounds when the unit is nearing the end of its air supply, this is to help ensure the user knows when they need to be in a safe breathing environment.

The proven reliability of the pneumatic principles used on the Dräger PA90 and Dräger PA90 Plus, have been adapted for use throughout the Dräger Saver range.

This design provides extremely low breathing resistance and a consistent air flow rate at all cylinder pressure levels.

### Low cost of ownership

- no mandatory routine service is required for a period of 10 years
- the cylinder can be charged using standard charging connectors with no special tools or adaptors to national regulations

## TECHNICAL SPECIFICATIONS

Dimensions	490 x 160 x 250 mm
Weight	6.18 kgs
Cylinder Free Capacity	600 liters
Cylinder Water Capacity	3 liter
Maximum Working Pressure	200 bar
Medium Pressure	6-9 bar
Airflow to Hood	Potentially 500 liters per minute
Operating Temperature Range	-15°C to +60°C
Approvals	EN402, Lloyd's Register Certificate of Fire Approval and Lloyd's Register Certificate of Type Approval. The Dräger Saver PP also complies with SOLAS Chapter I I-2, The Marine Equipment Directive and The Pressure Equipment Directive

# Dräger Saver PP15

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Saver PP15	1	3350403
Cabinet for Dräger Saver CF15	1	3351823
Safety Wash, 5 liter dispenser	1	3380166
Safety Wash, refill 5 liter	1	3380167

## Dräger Oxy 3000/6000 MK II

Robust and always under control: the oxygen self-rescuers Dräger Oxy® 3000 and 6000 MK II are designed to handle the harshest conditions. The Safety Eye provides an additional level of security: the status window allows the user to assess whether the device is operational within seconds.



Dräger Oxy 3000/6000 MK II  
Great usability

### Breathing air for 30 or 60 minutes

- The Dräger Oxy devices supply employees with oxygen during an incident. In the case of oxygen deficiency, smoke or dangerous gases, these devices provide the user with more time to reach the next safe area or complete a successful escape. The availability of a 30-minute and a 60-minute device provide more options in your emergency planning concept.

### Robust thanks to a double housing product concept

The metal/plastic exterior shell with an interior integrated shock absorber protects the KO<sub>2</sub> cartridge against damage in harsh environments such as mining, sewage work and within the petrochemical industry. The exterior shell will be left behind when the device is activated. This feature allows employees safe, effective and uncomplicated escape from hazardous environment.

### Safety duo: Crumple zone and Safety Eye

In what condition is your Dräger oxygen self-rescuer? Based on the position and depth of the dent in the exterior shell, the user can estimate the mechanical stresses the device has been subjected to. In addition, a glance through the Safety Eye is enough to ascertain if the KO<sub>2</sub> cartridge is undamaged. The user is able to immediately identify if moisture or KO<sub>2</sub> fragments are present inside the unit, without the need to use test equipment.

### Less maintenance, lower costs

Thanks to their robust construction, the Dräger Oxy 3000 MK II and the Dräger Oxy 6000 MK II can be used maintenance-free for up to ten years. The quick, uncomplicated visual inspection of the exterior shell and the Safety Eye provide certainty about the functionality of the device. These features allow the user to not only reduce the risk for employees, but also operating costs.

### Additional advantages

- Compact, ergonomic shape
- Worn with a hip belt, shoulder strap or hand belt
- Opening mechanism with one-handed operation for right-handed or left-handed wearers
- Optional rubber abrasion protection to protect against wear and tear
- Immediate activation of starter when donning the device
- Light, compact functional unit
- Comfort bite mouthpiece for high wearing comfort
- Anti-static breathing bag
- For your safety training: Dräger Oxy 3000/6000 MK II training device (optional simulator for inhalation temperature and breathing resistance available)
- Disposal of old devices by Dräger petrochemical

## TECHNICAL SPECIFICATIONS

Temperature	-30 °C to +50 °C (-22 to 122 °F) for storage and transport -30 °C to +70 °C (-22 to 158 °F) for a maximum of 24 h during transport (not when the device is in use) -5 °C to +70 °C (23 to 158 °F) during use
Inhalation temperature	Maximum +50 °C (122 °F) in accordance with DIN EN 13794
Breathing bag volume	> 8 liters
Service life	10 years @ 5 days/week and 8hrs/shift
Duration	Dräger Oxy® 3000 MK II: 30 min (35 L/min breathing minute volume) Dräger Oxy® 6000 MK II: 60 min (35 L/min breathing minute volume)

## Dräger Oxy 3000/6000 MK II

Inhalation/exhalation resistance	<p>Dräger Oxy® 3000 MK II: +10 hPa or -10 hPa (maximum exhalation resistance), <math>\Sigma</math> 16 hPa (at the end of the running time)</p> <p>Dräger Oxy® 6000 MK II: +7.5 hPa or -7.5 hPa (maximum exhalation resistance), <math>\Sigma</math> 13 hPa (at the end of the running time)</p>
Weight	<p>Dräger Oxy® 3000 MK II:</p> <p>without options 2.5 kg/ 88.2 oz.</p> <p>with support ring (hip) 2.7 kg/ 95.2 oz.</p> <p>with support ring &amp; abrasion protection 2.9 kg/ 102.2 oz.</p> <p>in use 1.7 kg/ 59.9 oz.</p> <p>Dräger Oxy® 6000 MK II:</p> <p>without options 3.3 kg/ 116.4 oz.</p> <p>with support ring (shoulder) &amp; belt 3.7 kg/ 130.5 oz.</p> <p>with support ring, belt &amp; abrasion protection 3.9 kg/ 137.6 oz.</p> <p>in use 2.4 kg/ 84.7 oz.</p>
Dimensions	<p>Dräger Oxy® 3000 MK II:</p> <p>without options 219 x 190 x 109 mm / 8.62 x 7.48 x 4.29 in.</p> <p>with support ring (hip) 225 x 190 x 122 mm / 8.86 x 7.48 x 4.80 in</p> <p>with support ring &amp; abrasion protection 230 x 194 x 122 mm / 9.06 x 7.64 x 4.80 in</p> <p>in use 170 x 200 x 80 mm / 6.69 x 7.87 x 3.15 in</p> <p>Dräger Oxy® 6000 MK II:</p> <p>without options 246 x 213 x 125 mm / 9.69 x 8.39 x 4.92 in</p> <p>with support ring (shoulder) &amp; belt 265 x 213 x 125 mm / 10.43 x 8.39 x 4.92 in</p> <p>with support ring, belt &amp; abrasion protection 265 x 217 x 125 mm / 10.43 x 8.54 x 4.92 in</p> <p>in use 190 x 240 x 100 mm / 7.48 x 9.45 x 3.94 in</p>
Approvals	<p>Dräger Oxy® 3000 MK II:</p> <p>DIN EN 13794</p> <p>89/686/EWG</p> <p>AS/NZS 1716:2012 (MDG 3609:2010)</p> <p>Dräger Oxy® 6000 MK II:</p> <p>DIN EN 13794</p> <p>89/686/EWG</p> <p>AS/NZS 1716:2012 (MDG 3609:2010)</p> <p>SANS 10338:2009</p>

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Oxy® 3000 MK II, standard	1	6305800
Dräger Oxy® 6000 MK II, standard	1	6306800

## Dräger PARAT® 4700

The Dräger PARAT® 4700 industrial escape hood was developed in cooperation with users – always with the focus on offering the fastest possible escape. Optimized operation and wearing comfort, a robust housing and a tested ABEK P3 filter guarantee that the wearer of the Dräger PARAT® 4700 is protected from toxic industrial combustion gases, vapours and particles for at least 15 minutes while escaping.



**Dräger PARAT 4700**  
Industrial escape hood

### Ready for escape in only 3 steps

Exceptionally innovative and intuitive: When opening the packaging, the filter plug is automatically released from the filter. The filter is then deployed into operational position and the hood can be immediately donned. Thanks to the self-adjusting internal head harness, no additional tightening is required. All you have to do is: open the packaging, remove and don the hood – and leave the danger zone.

### Reliable protection

The high-performance combination filter reliably protects against a wide range of toxic industrial gases, vapours and particles. The ABEK P3 filter is approved according to the DIN 58647-7 for filtering escape devices; additionally, the filter is tested in accordance with the EN 14387:2004 for gas and combined filter (s). Particularly convenient: The security seal on the packaging shows if the unit has been opened. In addition, the filter is tightly sealed with two filter plugs.

### 16 years of service life

Replacing the filter after 8 years will extend the service life of the Dräger PARAT Escape Hood to 16 years in total. For this, Dräger offers filter replacement service or an expert training for your employees.

### Sturdy and ergonomic at once

Both, ergonomics and wearing comfort were considered when designing the packaging of the Dräger PARAT Escape Hoods. The escape hood can be carried with a belt, shoulder strap, grip clip or belt clip. The PARAT Hard Case can also be mounted on the wall using a wallholder. Additionally, the robust packaging of the Dräger PARAT Escape Hoods protects the device from damage.

### Different packaging types

You can select between two packaging types: The Hard Case provides splash water protection (IP54) – the Soft Pack provides dust protection (IP5). Both packaging types have a viewing window to check the filter expiration date and the condition of the device.

## TECHNICAL SPECIFICATIONS

Dimensions	PARAT® 4720: 245 x 160 x 110 mm (l x w x h) PARAT® 4730: 249 x 156 x 115 mm (l x w x h)
Weight	PARAT® 4720: 675 g PARAT® 4730: 740 g
Filter performance	ABEK P3 combination filter against toxic industrial gases, vapours and particles
Approved duration	At least 15 minutes
Approvals	according to DIN 58647-7 (filter additionally tested in accordance with EN 14387:2004)

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT® 4730, Hard Case	1	R59431

## Dräger PARAT® 5500

The Dräger PARAT® 5500 fire escape hood was developed in cooperation with users – always with the focus on offering the fastest possible escape. Optimized operation and wearing comfort, a robust housing and a tested CO P2 filter guarantee that the wearer of the Dräger PARAT® 5500 is protected from toxic fire-related gases, vapours and particles for at least 15 minutes while escaping.



**Dräger PARAT 5500**  
Fire escape hood

### Ready for escape in only 3 steps

Exceptionally innovative and intuitive: When opening the packaging, the filter plug is automatically released from the filter. The filter is then deployed into operational position and the hood can be immediately donned. Thanks to the self-adjusting internal head harness, no additional tightening is required. All you have to do is: open the packaging, remove the and don hood – and leave the danger zone.

### Reliable protection

The high-performance combination filter reliably protects against a wide range of toxic fire-related gases, vapours and particles. The CO P2 filter is approved according to the EN standard 403:2004. In addition, the filter is tested for use against H<sub>2</sub>S (at 2500 ppm) in accordance with DIN 58647-7. Particularly convenient: The security seal on the packaging shows if the unit has been opened. In addition, the filter is tightly sealed with two filter plugs.

### 16 years of service life

Replacing the filter after 8 years will extend the service life of the Dräger PARAT Escape Hood to 16 years in total. For this, Dräger offers filter replacement service or an expert training for your employees.

### Sturdy and ergonomic at once

Both, ergonomics and wearing comfort were considered when designing the packaging of the Dräger PARAT Escape Hoods. The escape hood can be carried with a belt, shoulder strap, grip clip or belt clip. The PARAT Hard Case can also be mounted on the wall using a wall holder. Additionally, the robust packaging of the Dräger PARAT Escape Hoods protects the device from damage.

### Different packaging types

You can select between three packaging types: The Hard Case provides splash water protection (IP54) – the Soft Pack provides dust protection (IP5) – or select the Single Pack with the standard filter plug system. Both, the Hard Case and the Soft Pack have viewing windows to check the filter expiration date and the condition of the device.

## TECHNICAL SPECIFICATIONS

Dimensions	PARAT® 5510: 190 x 135 x 90 mm (l x w x h) PARAT® 5520: 215 x 155 x 105 mm (l x w x h) PARAT® 5530: 241 x 143 x 107 mm (l x w x h)
Weight	PARAT® 5510: 590 g PARAT® 5520: 660 g PARAT® 5530: 720 g
Filter performance	CO P2 combination filter against toxic fire-related gases, vapours and particles
Approved duration	At least 15 minutes
Approvals	according to EN 403:2004, additionally tested for the use against H <sub>2</sub> S (at 2,500 ppm) in accordance with DIN 58647-7



# Dräger PARAT® 5500

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT® 5510, Single Pack	1	R59415
Dräger PARAT® 5520, Soft Pack	1	R59425
Dräger PARAT® 5530, Hard Case	1	R59435

## Dräger PARAT® 5550

The Dräger PARAT® 5550 is a fire escape hood packaged in a flame-retardant holster. It was specifically developed for fire rescue teams for use in victim rescue. The main advantage: The PARAT® 5550 is system approved together with Dräger breathing apparatus according to EN 137:2006, Type 2.



**Dräger PARAT 5550**  
Escape hood

### "Ready to act" increases safety

With its EN 137:2006, Type 2 and EN 403:2004 approved combination of breathing apparatus, fire escape hood and holster, Dräger is going one step further in victim rescue. The fire escape hood can be carried along (e.g. on the breathing apparatus) without restricting the rescuer's freedom of movement. When it is needed, it is there. The fast deployment of the Dräger PARAT 5550 contributes to the safety of the person being rescued.

### Always available, always ready

As it is not always clear in advance whether or not people are inside the burning object, it is recommended to carry a fire escape hood at all times. For at least 15 minutes, a fire escape hood protects against highly toxic fire-related gases, like CO, as well as vapors and particles. Carried at all times, the PARAT 5550 can also save lives in a respiratory protection emergency, for example in the event of a disconnected air supply.

### Easy opening, intuitive use

The Dräger PARAT 5550 system solution keeps carrying, opening and donning the fire escape hood simple: The wearer opens the holster, removes the foil pouch containing the escape hood, opens it along the perforation —

with ease, even when wearing gloves — and helps the person being rescued to don it. A clearly visible pictogram further illustrates the donning procedure.

### More than just an accessory

With its reflective stripes, the holster is clearly visible from a distance. The material used is suitable for cleaning in washing machines. The inner label can also be used for personalization, meaning that the holster can be marked with an individual's identification. The holster can be attached to the breathing apparatus using the integrated belt loop with emergency release or the approved accessories like the shoulder harness or the carabiner hook. Optional accessory pockets (small and large) for further equipment like wedges or loops can be ordered separately.

### Cost efficiency through long service life

The PARAT 5550 has an eight year service life time and the filter is well protected through the filter plugs during this time. So it is uncritical if the unit is stored for some time before use. The filter expiration date is visible from the outside of the foil pouch enabling cost-effective maintenance. Due to the filter plugs, the product can still be used in the event the foil pouch is punctured.

## TECHNICAL SPECIFICATIONS

Dimensions	PARAT® 5550: 201 x 160 x 130 mm (h x w x d)
Weight	706 gr
Filter performance	CO P2 combination filter against toxic fire-related gases, vapours and particles
Approved duration	At least 15 minutes
Approvals	NEN-EN 137:2006, type 2 NEN-EN 403:2004

# Dräger PARAT® 5550

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT® 5550 Fire Escape Hood with Holster (without accessory pockets)	1	R59445
Dräger PARAT® 5550 Holster (without fire escape hood or accessory pockets)	1	R59490
Dräger PARAT® 5550 Accessory Pocket large	1	R59491
Dräger PARAT® 5550 Accessory Pocket small	1	R59492
Dräger PARAT® 5550 Shoulder Strap	1	R59462
Dräger PARAT® 5550 Refill Pack (fire escape hood enclosed in a perforated foil pouch)	1	R59476
Carabiner Hook (10 pcs.)	1	R55573

## Dräger PARAT® 7500

The combined fire and industrial escape hood Dräger PARAT 7500 was developed in cooperation with users – always with the focus on offering the fastest possible escape. Optimized operation and wearing comfort, a robust housing and a tested ABEK CO P3 filter guarantee that the wearer of the Dräger PARAT® 7500 is protected from toxic industrial and fire-related gases, vapours and particles for at least 15 minutes while escaping.



### Dräger PARAT 7500

Combined fire and industrial escape hood

#### Ready for escape in only 3 steps

Exceptionally innovative and intuitive: When opening the packaging, the filter plug is automatically released from the filter. The filter is then deployed into operational position and the hood can be immediately donned. Thanks to the self-adjusting internal head harness, no additional tightening is required. All you have to do is: open the packaging, remove and don the hood – and leave the danger zone.

#### Reliable protection

The high-performance combination filter reliably protects against a wide range of toxic industrial gases, vapours and particles. The ABEK P3 filter is approved according to the DIN 58647-7 for filtering escape devices; additionally, the filter is tested in accordance with the EN 14387:2004 for gas and combined filter (s). Particularly convenient: The security seal on the packaging shows if the unit has been opened. In addition, the filter is tightly sealed with two filter plugs.

#### 16 years of service life

Replacing the filter after 8 years will extend the service life of the Dräger PARAT Escape

Hood to 16 years in total. For this, Dräger offers filter replacement service or an expert training for your employees.

#### Sturdy and ergonomic at once

Both, ergonomics and wearing comfort were considered when designing the packaging of the Dräger PARAT Escape Hoods. The escape hood can be carried with a belt, shoulder strap, grip clip or belt clip. The PARAT Hard Case can also be mounted on the wall using a wallholder. Additionally, the robust packaging of the Dräger PARAT Escape Hoods protects the device from damage.

#### Different packaging types

You can select between two packaging types: The Hard Case provides splash water protection (IP54) – the Soft Pack provides dust protection (IP5). Both packaging types have a viewing window to check the filter expiration date and the condition of the device. There is an additional version of the PARAT 7500: A hood which has an elastomeric neck seal – for an even higher level of protection.

### TECHNICAL SPECIFICATIONS

Dimensions	PARAT® 7520: 235 x 160 x 115 mm (l x w x h) PARAT® 7530: 249 x 156 x 115 mm (l x w x h)
Weight	PARAT® 7520: 770 g PARAT® 7520e: 850 g PARAT® 7530: 830 g PARAT® 7530e: 900 g
Filter performance	ABEK CO P3 combination filter against toxic gases, vapours, particles and fire-related gases
Approved duration	At least 15 minutes
Approvals	According to EN 403:2004 and DIN 58647-7 (filter additionally tested in accordance with EN 14387:2004)

# Dräger PARAT® 7500

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT® 7520, Soft Pack	1	R59427
Dräger PARAT® 7530, Hard Case	1	R59437

## Dräger PARAT® 3000 Filtering Escape Devices

When hazardous substances are present at a work place it has to be taken into account that these substances can suddenly leak out into the air in concentrations that cause severe health impairment or even death.



### Dräger Parat 3000

Protects the user from harmful gases and smokes

The filtering escape devices Dräger PARAT 3000 have a single but vital task to perform: They ensure that the user is provided with protection along his escape route into a safe, breathable atmosphere. Therefore these devices are robust, compactly designed and safe and easy to handle. The filtering escape devices are designed for a minimum of 15 minutes of escape time and approved to the only standard world-wide for industrial escape devices (DIN 58647-7).

### Dräger PARAT® 3100

Half mask with 2-point harness – quick donning, comfortable use and good communication

### Dräger PARAT® 3200

Mouth piece/nose clip assembly – for very low leakage.

#### Benefits

- ABEK 15 Filter – protection against a wide range of toxic gases and vapours
- robust, ergonomic case – for long service life even in rough work environments
- transparent cover with mounting clip – easy to service and carry along for daily use
- long service life - 12 years total life time (filter change every 4 years)

### TECHNICAL SPECIFICATIONS

Filter performance	ABEK 15 gas filter for protection against organic and anorganic gases and vapours, approved in accordance to DIN 58647 part 7
Dimensions	Dräger PARAT 3100: 170 x 110 x 90mm Dräger PARAT 3200: 170 x 110 x 60mm
Weight	Dräger PARAT 3100: approx. 360g Dräger PARAT 3200: approx. 330g
Duration of use	At least 15 minutes
Shelf life	4 years free of service, filterexchange every 4 years, total shelf life 12 years
Approvals	Approved in accordance to DIN 58647 part 7 (CE mark 0158)

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT 3100	1	R57981
Dräger PARAT 3200	1	R57982

## Personal Grab Bag

Grab bag with personal escape aid to abandon the installation in case of a fire. The personal grab bag is mostly used on offshore platforms. To be used in the event of a fire.



**Personal Grab Bag**  
Personal escape aid

### Contents

- grab bag with carrying strap and photo luminescent identification strip
- Dräger Parat 5510 smoke hood
- heat resistant gloves
- cyalume light stick

### Dräger PARAT 5510

A fire along with the hazardous smoke and fumes it gives off, can take you by surprise. The Dräger PARAT 5510 Fire Escape Hood is designed to help you escape the fire safely by filtering out the toxic smoke and fumes in the fire, allowing you to breathe easily while getting to safety. The Dräger PARAT 5510

has been successfully proven in use and public building and with fire departments, helping to rescue others, giving you minimum 15 minutes of escape protection in fire situations.

### Light stick

The 6" EASY-LIGHT is a pure European product. Thanks to its elegant design, it is a good alternative to the 6" GLOWSTICK. The "alligator" hook helps to clip this light sticks on many supports. Combine the 6" EASY-LIGHT with a lanyard and it becomes a glowing pendant. On special events, imprint the 6" EASY-LIGHTS to adapt more personally.

## TECHNICAL SPECIFICATIONS

### Dräger PARAT 5510

Dimensions	Dräger PARAT 5510 single pack: 19,5 x 14 x 9 cm (H x L x W)
Weight	approx. 600 gr
Filter performance	Combination cartridge (gas & particle filter) provides protection against smoke, gases and particles, Filter Type CO-P2
Approved duration	minimum of 15 minutes
Approval	EN 403:2004, additionally tested against H2S (at 2.500ppm) in accordance with DIN 58647-7. CE mark.

### Light stick

Dimensions	150 x 11 mm
Weight	0.0133 kg
Color	Green
Duration of use	up to 12 hours
Approval	EN 71 1-2-3

### Heat resistant gloves

Operating temperature	150°C
Approval	EN388 CAT-1

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Grab bag (empty)	1	SG06154
Dräger PARAT 5510, single pack	1	R59415
Heat resistant gloves	1	SG06152
Cyalome stick	1	SG06153

## Dräger X-plore® 1300

The Dräger X-plore® 1300 combines proven and reliable respiratory protection with intelligent new ideas ensuring a high level of comfort and ease of use.



Dräger X-plore® 1300  
Respiratory protection

### Efficient particle protection

Dräger X-plore 1300 is the new generation of pre-formed particle filtering face pieces for effective protection against fine dust as well as solid and liquid particles. For use in applications where exposure to dust is unavoidable the X-plore 1300 is available in all three EN protection classes FFP1, FFP2 and FFP3. Odour stopping versions equipped with an activated carbon layer are ideal for users that battle with unpleasant nuisance odours.

### CoolSAFE™ filter material

- The specially developed CoolSAFE™ filter material combines various high-performance filter media to achieve an excellent filter performance. Coarse and fine particles are effectively stopped in the various filter layers. At the same time, the breathing resistance remains very low, allowing the user to work easily and without tiring for longer periods. In addition, the face pieces were subjected to the increased requirements of the (optional) dolomite dust test. Their resistance to clogging under high exposure to dust was successfully tested. During activities with high exposure to dust (e.g. mining), this gives the face pieces a longer service life and reduces costs for the user, while maintaining a high degree of wearing comfort.

### VarioFLEX™ head harness with EasyStop

Easy to don/doff and adjust with a pressure-free fit. The continuous-looped tear-proof textile strap eliminates the need for clips – preventing uncomfortable pressure and allergic reactions. EasyStop allows the wearer to individually adjust the harness as required, while ensuring ease of use and a secure, comfortable seal. Experience ultimate comfort with the extra-wide slip-proof harness of the Dräger X-plore 1300.

### CoolMAX™ exhalation valve (optional)

Small details, big effect: Breathe easy and comfortably, thanks to the extremely low breathing resistance. The valve directs humid and warm exhaled air away from the user and out of the mask – preventing heat build-up and keeping them cool.

### A secure seal

Alongside the filter performance, a secure seal, without leakage, is decisive in how effective the masks' protection really is. The X-plore 1300 is the ideal combination of an ergonomic mask body combined with an integrated nose seal and nose clip. This gives the wearer a tailor-made fit and a secure seal. Additionally, the good seal keeps safety glasses from fogging.

### Colour coding for fast recognition of the protection class

Fast recognition without confusion: the colour coded nose clip and valve classify the three EN protection levels dark-blue (FFP1), light-blue (FFP2) and white (FFP3). Providing easy recognition when selecting the right mask.

### Special features of X-plore 1330

- Practical and comfortable: The VarioFLEX™ head harness with a four-point adjustment and extra-wide textile straps ensures the best possible fit.
- Quick and easy to use: The straps are arranged for fast donning. An integrated safeguard prevents straps from slipping out of place.
- Secure and comfortable: Integrated, all-around comfort sealing.
- Clean and hygienic: Each face piece is individually packaged in its own plastic bag.
- Individually adjustable: Available in two different sizes S/M and M/L – the right size for different face shapes.

## TECHNICAL SPECIFICATIONS

Filter material	CoolSAFE™ for protection against solid and liquid non-volatile particles
Odour versions	With additional activated carbon layer against nuisance organic odours below the limit value
Marking D	Successfully passed the dolomite dust test against clogging
Marking NR	The mask can only be used for a maximum of one work shift



## Dräger X-plore® 1300

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**Approvals**

All versions meet the conditions of the EU guideline 89/686/EWG and are permitted as particle filtering half masks in accordance to the increased requirements of the revision of EN 149:2001+A1:2009 (test of filter performance for aerosol exposure with 120 mg paraffin oil). Australian Standard AS/NZS 1716:2003 certified (SAI Global)

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**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Dräger X-plore 1310 FFP1 NR D	1	3951211
Dräger X-plore 1310 FFP1 NR D V (with valve)	10	3951212
Dräger X-plore 1320 FFP2 NR D	20	3951213
Dräger X-plore 1320 FFP2 NR D V (with valve)	10	3951214
Dräger X-plore 1330 FFP3 NR D V size M/L (with valve)	5	3951217

## Dräger X-plore® 3300

A perfect combination of durability, protection and comfort. For harsh conditions and long duration use, the Dräger X-plore 3300 half mask is the first choice.



**Dräger X-plore 3300**  
Durability, protection and comfort

### Flexible nose area for nose fit

The special design of the nose sealing strip ensures leak free sealing and an optimal fit with safety glasses. Three sizes (S,M, L) ensure a perfect fit for every type of face.

### Low profile design

The swept-back position of the filters guarantees a wide field of vision free from obstruction and ensures optimal fit for use under protective visors. Furthermore, the comfortable design leads to the highest level of user acceptance.

### FlexiFit head harness

The new smooth material provides an excellent fit to your head without hair entanglement. You won't even notice it under your hard hat.

### Easily adjustable head harness

The innovative X-guided (cross over) strap system is easy to adjust and ensures an even

weight and pressure distribution resulting in increased wearer comfort.

### Innovative DrägerFlex material

Specially developed for the mask body of the Dräger X-plore® 3500, the "DrägerFlex" material combines hypoallergenic properties with excellent chemical resistance and protection.

### Drop down harness

Allows you to remove the mask without removing a hard hat or faceshield. By simply opening the neck clips the respirator slides down from your face. While in the drop-down position, the mask sits close to your body, protected from dirt and grime.

### Versatile use

The Dräger X-plore® 3500 is equipped with two lateral bayonet connections for use with the comprehensive Dräger X-plore® bayonet filter series.

## TECHNICAL SPECIFICATIONS

Material of mask body	Soft-TPE – friendly to the skin, comfortable to wear, lightweight, translucent grey
Sizes	Small (S), medium (M), large (L)
Filter connection	Two side-positioned bayonet connectors for use with the Dräger X-plore® filter range
Weight	Approx. 95 gr
Maintenance	Spare parts available for Dräger X-plore® 3500
Extras	Drop down harness system and resealable storage bag (with Dräger X-plore® 3500)
Approvals	CE-certified (EN 140), Australian Standard AS/NZS 1716, NIOSH 42 CFR 84

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore 3300 half mask, (size S)	1	R55331
Dräger X-plore 3300 half mask, (size M)	1	R55330
Dräger X-plore 3300 half mask, (size L)	1	R55332

# Dräger X-plore® 3500

A perfect combination of durability, protection and comfort. For harsh conditions and long duration use, the Dräger X-plore 3500 half mask is the first choice.



## Dräger X-plore 3500

Excellent chemical resistance and protection

### Flexible nose area for secure fit

The special design of the nose sealing strip ensures leak free sealing and an optimal fit with safety glasses. Three sizes (S, M, L) ensure a perfect fit for every type of face.

### Low profile" design

The swept-back position of the filters guarantees a wide field of vision free from obstruction and ensures optimal fit for use under protective visors. Furthermore, the comfortable design leads to the highest level of user acceptance.

### "FlexiFit" head harness

The new smooth material provides an excellent fit to your head without hair entanglement. You won't even notice it under your hard hat.

### Easily adjustable head harness

The innovative X-guided (cross over) strap system is easy to adjust and ensures an even

weight and pressure distribution resulting in increased wearer comfort.

### Innovative "DrägerFlex" material

Specially developed for the mask body of the Dräger X-plore 3500, the "DrägerFlex" material combines hypoallergenic properties with excellent chemical resistance and protection.

### "Drop down" harness

Allows you to remove the mask without removing a hard hat or faceshield. By simply opening the neck clips the respirator slides down from your face. While in the drop-down position, the mask sits close to your body, protected from dirt and grime.

### Versatile use

The Dräger X-plore 3500 is equipped with two lateral bayonet connections for use with the comprehensive Dräger X-plore® bayonet filter series.

## TECHNICAL SPECIFICATIONS

Material of mask body	Soft-TPE – friendly to the skin, comfortable to wear, lightweight, translucent grey
Sizes	Small (S), medium (M), large (L)
Filter connection	Two side-positioned bayonet connectors for use with the Dräger X-plore® filter range
Weight	Approx. 95 gr
Maintenance	Spare parts available for Dräger X-plore® 3500
Extras	Drop down harness system and resealable storage bag (with Dräger X-plore® 3500)
Approvals	CE-certified (EN 140), Australian Standard AS/NZS 1716, NIOSH 42 CFR 84

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore 3500 (size S)	1	R55351
Dräger X-plore 3500 (size M)	1	R55350
Dräger X-plore 3500 (size L)	1	R55352

## Dräger X-plore® 4740

The Dräger X-plore® 4700 is the robust half mask which offers excellent comfort and outstanding leak tightness for demanding applications. Thanks to the wide range of filters available for protection against gases, vapours and particles, it is ideally suited for use in a variety of industries.



**Dräger X-plore 4740**  
Excellent comfort

### Flexible nose area for secure fit

The combination of soft mask body, specially shaped nose seal and a sturdy plastic frame offers key advantages during long term use: a perfect fit on different face shapes and sizes, superior leak tightness, and virtually no pressure points. The ergonomic FlexiFit head harness makes the mask easy to don and doff without hair entanglement or unnecessary pressure. The mask can be removed simply by releasing the neck hook, without taking off the safety helmet ("drop down" strap system). The exhalation valve is positioned low and reliably removes moisture, maintaining a dry and pleasant atmosphere inside the mask. Two high quality materials are available to choose from: TPE or extremely comfortable silicone, especially good for sensitive skin.

The silicone version is also available in two sizes. Two different connectors can be ordered, either for use with Dräger X-plore® Rd40 filters (as per EN 148-1), or Dräger X-plore® Rd90 filters (Dräger-specific). A wide range of gas, particle and combination filters are available for both connectors.

### Benefits

- outstanding comfort
- excellent fit
- virtually no pressure points
- TPE version is free of paint-affecting substances
- choose between two different sizes and filter connectors
- wide range of filters

### TECHNICAL SPECIFICATIONS

Material of mask body	Soft-TPE – friendly to the skin, comfortable to wear, lightweight, translucent grey
Sizes	Small (S), medium (M), large (L)
Filter connection	Standard thread connection Rd40 (RA) as per EN 148-1 (Dräger X-plore® 4740) Dräger-specific thread connection Rd90 (Dräger X-plore® 4790)
Weight	Dräger X-plore® 4740: 160 g bzw. 175 g Dräger X-plore® 4790: 180 g bzw. 195 g
Head harness	Flexible and robust neoprene strap (CR/NR), two adjustment points, FlexiFit TPE head harness, drop-down option EH-version: elastic harness made of sturdy, chemical resistant neoprene
Spare parts	Available
Approvals	CE certified (EN 140), AS/NZS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-Plore 4740 RA M/L Silicones	1	R55874
Dräger X-plore 4740 S/M	1	R55875

## Dräger X-plore® 5500

Whether in the chemical, metal, or automotive industries, ship building, maintenance, supplies, or disposal: The Dräger X-plore® 5500 full face mask is the right solution for environments where not only increased respiratory protection is required, but also a clear vision is mandatory.



**Dräger X-plore® 5500**  
Safe and comfortable fit

### Safe and comfortable fit

A double sealing frame with threefold sealing edges offers safe protection and a secure fit for almost all face shapes. The mask body from durable EPDM ensures a great level of wearing comfort even during prolonged use.

### 5-point harness

The harness allows quick and easy donning and doffing of the mask without hair entanglement. Additionally, the wide strap design prevents the development of pressure points on the head.

### Large field of view due to 180° from PC or Triplex

The distortion-free lens with 180° wide angle guarantees a large field of view with excellent peripheral vision. There is a choice of impact-proof polycarbonate material (with plastic frame) or scratch-proof and chemical-resistant Triplex glass (with extra stable stainless steel frame).

### Easy recording, servicing and management

One universal size simplifies logistics and storage. An inside barcode allows for ease of recording and servicing the mask inventory.

### Efficient ventilation system

The efficient ventilation system with separate interior half mask ensures a fog-free lens and unobstructed view.

### Large field of vision

The swept-back position of the filters guarantees the user's field of vision is free from obstruction.

### Versatile use

The Dräger X-plore® 5500 is equipped with two lateral bayonet connections for use of the comprehensive Dräger X-plore® bayonet filter series.

## TECHNICAL SPECIFICATIONS

Material of mask body	EPDM with high ageing resistance, extremely hypoallergenic
Visor	Polycarbonate with wide field of vision
Filter connection	Two side-positioned bayonet connections for use of the X-plore® Bayonet Filter range
Weight	Approx. 540 gr
Maintenance	Spare parts available
Approvals	EN136 Cl.2 with CE mark and NIOSH

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore 5500 EPDM / PC full face mask, (universal size)	1	R55270
Wikov carrying case for full face masks	1	R51019

## Dräger X-plore® 6300



### Dräger X-plore 6300

Meets the highest demands for reliability

The Dräger X-plore® 6300 is the efficient yet low-cost full face breathing mask intended for price-conscious users not wishing to compromise on comfort or quality. This full face mask is the successor to the Panorama Nova Standard, a mask which has proven itself over decades of use worldwide – redesigned and improved with fresh colours and an integrated bar code.

#### Applications

The Dräger X-plore 6300 is designed for use by professionals in industry, and meets the highest demands for reliability, fit and comfort.

Together with the respiratory filters from Dräger's comprehensive range, it has proven suitable for a wide range of different applications. Versatile in use, this mask can be used either in combination with Dräger X-plore Rd40 filters or together with the Dräger powered air purifying respirators (e.g. X-plore 7300 or 7500 series).

#### Features

The mask body, which is made of robust and hypoallergenic EPDM, features a double-layer face seal with triple sealing action for a secure and comfortable fit on just about any shape of face. The mask comes in a universal "one size fits all", making logistics and storage easy. The comfortable five-point head harness

not only ensures that the mask can be donned easily and quickly, but is wide enough to prevent any pressure points on the wearer's head.

The scratch-proof and distortion-free PMMA Plexiglas visor with 180° wide-angle guarantees a large field of vision with panoramic view. The robust frame is made of extra-light plastic, and the intelligent ventilation system ensures that the visor remains fog-free.

#### Maintenance

A barcode inside the mask makes checking inventories and carrying out mask maintenance easy. Valves can even be serviced without tools. A full range of accessories and spare parts are available. High quality materials and careful workmanship ensure mask longevity, making the masks highly cost effective.

### TECHNICAL SPECIFICATIONS

Material of mask body	Highly resistant and hypoallergenic EPDM
Weight	Approx. 500 gr
Visor	Scratch-proof PMMA (Plexiglas) with 180° wide-angle
Connection	Sturdy plastic with inhalation and exhalation valve, standard thread connection Rd 40x1/7" as per EN 148-1
Approvals	EN 136 Class 2 (CE mark), NIOSH, AS/NZS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore 6300	1	R55800
Wikov carrying case for full face masks	1	R51019

# Dräger X-plore® 6530 Full Face Masks

The Dräger X-plore® 6530 is the most widely used full face mask from professionals in a wide variety of applications. It meets the highest demands for quality, reliability, secure fit and comfort. This full face mask is the successor to the Panorama Nova masks, a range which has proven itself over decades of use worldwide.



**Dräger X-plore® 6530 EPDM/PC**  
With PC visor and plastic frame

#### Safe and comfortable fit

A double sealing frame with threefold sealing edges offers safe protection and a secure fit for almost all face shapes. The mask body made from durable EPDM ensures a great level of wearing comfort even during prolonged use.

#### Large field of vision

The distortion-free lens with 180° wide angle guarantees a large field of vision with excellent peripheral vision. You have the choice between a lens made from impact-proof polycarbonate (with either a plastic or stainless steel lens frame) or an extremely scratch-resistant Triplex lens with high chemical resistance (with stainless steel lens frame).

#### Efficient ventilation system

The efficient ventilation system with separate inner half mask ensures a fog-free lens and unobstructed view.

#### Versatile use

The X-plore 6530 is equipped with an Rd40 connection in accordance with EN 148-1 for use of the Dräger X-plore® Rd40 filter series.

#### 5-point harness

The comfortable five-point head harness not only ensures that the mask can be donned easily and quickly, but is wide enough to prevent any pressure points on the wearer's head.

#### Simple servicing and logistics

One universal size simplifies logistics and storage. An inside barcode allows for ease of recording and servicing the mask inventory.

#### Clear voice communication

An integrated stainless steel voice diaphragm facilitates good communication.

## TECHNICAL SPECIFICATIONS

Material of mask body	Highly resistant and hypoallergenic EPDM
Weight	Approx. 550 – 650 g (depending on visor/frame)
Visor	Choice of impact-resistant polycarbonate or extremely temperature- and chemical-resistant triplex
Connection	Sturdy plastic with inhalation and exhalation valve, standard thread connection Rd 40x1/7" as per EN 148-1
Approvals	EN 136 Class 3 (CE mark), NIOSH (PC), AS/NZS

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore® 6530 EPDM/PC, with PC visor and plastic frame	1	R55795
Dräger X-plore® 6530 EPDM/Triplex, with triplex visor and stainless steel frame	1	R55810
Wikov carrying case for full face masks	1	R51019
Protex mask bag, set of 4 pieces	1	R54939
Anti-fogging gel "klar-pilot" (50 ml)	1	R52560
Lens covers (set of 25), self-adhesive	1	4055092
Mask spectacles kit	1	R51548
Welding shield	1	4053437
DAISYquick cleaning cloths (pack of 10)	1	R54134

## Dräger X-plore® 6570 Full Face Masks

The Dräger X-plore® 6570 is the high comfort silicone full face mask used by professionals in a wide variety of applications. It meets the highest demands for quality, reliability, secure fit and comfort. This full face mask is the successor to the Panorama Nova masks, a range which has proven itself over decades of use worldwide.



Dräger X-plore® 6570 Full Face Masks  
With PC visor and stainless steel frame

### Silicone mask body for safety and wearing comfort

A double sealing frame with threefold sealing edges offers safe protection and a secure fit for almost all face shapes. The mask body is made of durable and hypoallergenic silicone (blue or yellow colour) which provides non-compromising wearing comfort - even during prolonged use.

### Large field of vision

The distortion-free lens with 180° wide angle provides a large field of view with excellent peripheral vision. The lens is made from impact-proof polycarbonate with either a plastic or stainless steel lens frame available.

### Efficient ventilation system

The efficient ventilation system with separate inner half mask prevents the visor from misting up and provides a clear view.

### Versatile use

The X-plore 6570 is equipped with an Rd40 connection in accordance with EN 148-1 for use of the Dräger Xplore® Rd40 filter series.

### 5 point harness

The comfortable five-point head harness not only ensures that the mask can be donned easily and quickly, but is wide enough to prevent any pressure points on the wearer's head.

### Simple servicing and logistics

One universal size simplifies logistics and storage. The inside barcode allows for ease of recording and servicing the mask inventory.

### Clear voice communication

An integrated stainless steel voice diaphragm facilitates good communication.

## TECHNICAL SPECIFICATIONS

Material of mask body	Particularly skin-friendly silicone, which is highly flexible at high/low temperatures
Weight	Approx. 520 – 620 g (depending on visor/frame)
Visor	Choice of impact-resistant polycarbonate or extremely temperature- and chemical-resistant triplex
Connection	Sturdy plastic with inhalation and exhalation valve, standard thread connection Rd 40x1/7" as per EN 148-1
Approvals	EN 136 Class 3 (CE mark), NIOSH (PC), AS/NZS

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore® 6570 SI/PC, with PC visor and stainless steel frame	1	R51535
Wikov carrying case for full face masks	1	R51019
Protex mask bag, set of 4 pieces	1	R54939
Anti-fogging gel "klar-pilot" (50 ml)	1	R52560
Lens covers (set of 25), self-adhesive	1	4055092
Mask spectacles kit	1	R51548
Welding shield	1	4053437
DAISYquick cleaning cloths (pack of 10)	1	R54134



## Dräger X-plore® Half-mask Filters

Experience a new dimension of comfort and safety in respiratory protection: the Dräger X-plore® Twinfilter series. It sets the benchmark in comfort and use. The utilization of modern materials coupled with an attractive design guarantees maximum comfort and user acceptance.



**Dräger X-plore half-mask filters**  
High level of user safety

### Innovative and comfortable

The extensive X-plore Bayonet filter series is an innovative line of twin filter respiratory protection products for all major applications which combines modern design with enhanced wearer comfort. The off-center arrangement of the bayonet connections enables a wide and unobstructed field of view. The filters are suitable for use with Dräger X-plore 3300/3500 half masks and Dräger X-plore 5500 full face masks with Dräger bayonet connection.

### Easy and secure attachment

The filters are equipped with a secure and quick-release bayonet catch which provides easy guidance until they click into place. The P3 particle filters have a white housing for easy identification.

### Many possibilities

The gas cartridges can be upgraded to operate as combination cartridges by using various pad attachments or Dräger X-plore® Pure with an adapter. The additional particle filters can be replaced independently from the gas cartridge. An optional coarse particulate prefilter prevents premature clogging of to the combination cartridge with grit or spray paint.

### Durable plastic housing

All bayonet filters are equipped with a robust plastic housing.

### CE marking

All filters are CE-marked in accordance with EN 14387 and/or EN 143.

### Supporting cartridge selection

The Dräger VOICE database of hazardous substances offers comprehensive support for selecting cartridges ([www.draeger.com/voice](http://www.draeger.com/voice)).

## ORDER INFORMATION

Filter Type	Weight Order	Ordernr.
<b>Particle Filters</b>		
P3 R**	35 gr/pc	6738011
<b>Gas Filters</b>		
A1	90 gr/pc	6738005
A2	90 gr/pc	6738873
A2B2	120 gr/pc	6738775
A1B1E1K1	110 gr/pc	6738816
<b>Combination Filters</b>		
A1B1E1K1Hg P3 D**	140 gr/pc	6738817
A2B2E2K2Hg P3 D* **	210 gr/pc	6738819

\* only for use with full face mask

\*\* labelling "R": certified for reuse (more than one shift)

labelling "D": successfully passed dolomite test

## Dräger X-plore® Rd40-filters

Whether used in chemical industry or automobile industry, shipbuilding, metal processing industry or by public utility services – for decades Dräger respiratory protection filters have been a synonym for experience and safety worldwide. They clean breathable air from contaminants in a low-cost and effective manner.



### Dräger X-plore filters

Clean breathable air from contaminants in a low-cost

#### Broad filter range

The X-plore Rd40 filter series offers various filter types for major applications and protects against many hazardous substances – from phosphine to tear gas to particulates.

#### Long life

The gas filters and combination filters have a shelf-life of 6 years and the particle filters a shelf life of 12 years from date of manufacture.

#### Resealable individual packaging

The filters are packed individually to ensure optimum protection of the unused filter. For storage, the packaging is resealable.

#### Aluminium housing

The aluminium housing ensures that any damage to the filter is easily detected, therefore providing extra security.

#### CE marking

All filters are CE-marked in accordance with EN 14387 and/or EN 143.

#### Rd40 thread connection

The filters are suitable for use with half and full face masks with standard thread connection Rd40 according to EN 148-1.

#### Supporting filter selection

The Dräger VOICE database of hazardous substances offers comprehensive support for selecting filters ([www.draeger.com/voice](http://www.draeger.com/voice)).

### TECHNICAL SPECIFICATIONS

Material	ABS plastic housing
Shelf life	Gas and combination filters 6 years, particle filters 12 years, pads 3 years
Approvals	EN 14387, EN 143:2000/A1:2006

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger filter 680 P3 Rd40	25	6732974
Gas filter 940 A2	1	6738855
Gas filter 900 A2B2	1	6738779
Gasfilter 105 AX	1	6738863
Gasfilter 900 K2	1	6738856
Gasfilter 940 A2B2E2K1	1	6738802
Gasfilter 1140 A2B2E2K2	1	6738804
Combination filter 1140 A2B2-P3 RD	1	6738783
Combinatiefilter 1140 A2B2E2K2 Hg-P3 RD	1	6738797

## Dräger X-plore® Rd90-filters

Clean air for tough jobs. The filters of the Dräger X-plore® Rd90 series protect from hazardous gases and vapors, have a long life and can be used for many different masks.



### Dräger X-plore filters

Clean air for tough jobs

#### Extensive filter range

The X-plore Rd90 filter series offers an extensive range of various filter types for all major applications and protects against many gases and vapors.

#### Universal fit

The filters have been designed for use in the Dräger half masks, X-plore® 4390 and 4790. With the 40/90 filter box adapter they can also be used for any mask with a Rd40 connection in accordance with EN 148-1.

#### Long life

The gas filters and combination filters have a shelf-life of 6 years and the particle filters a shelf life of 12 years from date of manufacture.

#### Individual packaging

The filters are packed individually to ensure optimum protection of the unused filter.

#### Aluminium housing

The aluminium housing ensures that any damage to the filter is easily detected, therefore providing extra security.

#### CE marking

All filters are CE-marked in accordance with EN 14387 and/or EN 143.

#### Supporting filter selection

The Dräger VOICE database of hazardous substances offers comprehensive support for selecting filters ([www.draeger.com/voice](http://www.draeger.com/voice)).

#### Rd40 thread connection

The filters are suitable for use with half and full face masks with standard thread connection Rd40 according to EN 148-1.

### TECHNICAL SPECIFICATIONS

Material	ABS plastic housing
Shelf life	gas and combination filters 6 years, particle filters 12 years, pads 3 years
Approvals	CE-marked in accordance with EN 14387 and/or EN 143:2000

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Partikel filter 990 P3 R	5	6737190
Gas filter 990 A1B1E1K1	5	6738810
Combinatie filter 990 A2B2-P3 RD	5	6738773
Combinatie filter 990 A1B1E1K1-P2 RD	5	6738811
Combinatie filter 990 A1B1E1K1Hg-P3 RD	5	6738812

## Wikov carrying case for full face masks

Wikov carrying case for easy and accessible storage of full face mask and filter.



### Features

- made out of tough plastic
- shockproof to -30°C

- ergonomic shape
- including adjustable belt
- designed for full face masks

**Wikov storage box**  
For full face masks

### TECHNICAL SPECIFICATIONS

Material	Plastic
Shelf life	gas and combination filters 6 years, particle filters 12 years, pads 3 years
Approvals	CE-marked in accordance with EN 14387 and/or EN 143:2000

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Wikov carrying case for full face masks	1	R51019

## Dräger PAS Colt - EN 402

Combining versatility, ease of use and the latest in breathing apparatus design, Dräger's PAS Colt is among the most technologically advanced short duration and emergency escape units available.



### Ergonomically designed harness

The PAS Colt is a hip-mounted unit with a distinctive, sophisticated harness design which retains its form, making it easy for the wearer to don the apparatus simply and quickly. The procedure for donning the apparatus is evident at first glance, even to the inexperienced user.

### Modular Drop-down facility

Equipped, as an option, a unique 'drop down' feature, whereby the cylinder can be unclipped from the waistbelt, makes the PAS Colt ideal for use in confined space entry applications.

### Machine washable harness

The PAS Colt is machine washable and easy to maintain.

### Dräger PAS Colt - EN 402

Sophisticated harness

### TECHNICAL SPECIFICATIONS

Minimum dimensions	790 x 500 x 70 mm
Maximum dimensions	950 x 500 x 70 mm
Weight	2 kgs
Input pressure cylinder	200 or 300 bar
Input pressure airline	6 - 9 bar
Nominal 1st stage output pressure	7 bar
1st stage output flow	>600 bar
LDV output flow	>400 bar
Whistle activation pressure	4 - 5 bar
Whistle soundlevel	>90 dBA
Whistle frequency range	2000 - 4000 Hz
Operating temperature range	-32°C to +70°C

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Colt EN 402	1	3352744

## Dräger PAS Colt - EN 137

Combining versatility, ease of use and the latest in breathing apparatus design, Dräger's PAS Colt is among the most technologically advanced short duration and emergency escape units available.



Dräger PAS Colt - EN 137  
Sophisticated harness

### Ergonomically designed harness

The PAS Colt is a hip-mounted unit with a distinctive, sophisticated harness design which retains its form, making it easy for the wearer to don the apparatus simply and quickly. The procedure for donning the apparatus is evident at first glance, even to the inexperienced user.

### Modular Drop-down facility

Equipped, as an option, a unique 'drop down' feature, whereby the cylinder can be unclipped from the waistbelt, makes the PAS Colt ideal for use in confined space entry applications.

### Machine washable harness

The PAS Colt is machine washable and easy to maintain.

### TECHNICAL SPECIFICATIONS

Minimum dimensions	550 x 500 x 70 mm
Maximum dimensions	640 x 500 x 70 mm
Weight	2.5 kgs
Input pressure cylinder	200 or 300 bar
Input pressure airline	6 - 9 bar
Nominal 1st stage output pressure	7 bar
1st stage output flow	>600 bar
LDV output flow	>400 bar
Whistle activation pressure	55 - 60 bar
Whistle soundlevel	>90 dBA
Whistle frequency range	2000 - 4000 Hz
Operating temperature range	-32°C to +70°C

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Colt EN 137		3352634

## Dräger PAS Airpack 1 Trolley

Designed using leading technology and materials, Dräger's range of heavy-duty airline apparatus is ideal for use where an extended duration of breathing air is called for. Chemical tank cleaning, toxic spillages or certain tasks when working on offshore installations are all made easier and more comfortable when using the Dräger PAS® AirPack 1.



### Dräger PAS AirPack 1

Extended duration breathing apparatus at its best

#### Increased freedom of movement

Uninterrupted air supply is provided by the trolley-mounted cylinder(s) to the wearer via a hose reel. As the PAS AirPack can be easily re-located and therefore positioned in a safe zone which is in close proximity to working area, the user need only wear a lightweight harness, such as Dräger's PAS Colt, during operation. This allows the wearer a greater freedom of movement, and less stress and fatigue than they would be subjected to if wearing a conventional self-contained breathing apparatus unit.

#### A well thought trough system

The Dräger PAS AirPack 1 is able to accommodate up to four compressed air cylinders of up to 12 litres in capacity and is constructed from an anti-static powder coated steel material.

A 50 metre length of hose is supplied with the PAS AirPack 1 as standard, this can be extended to a length of 100 metres with a range of extension hoses. The trolley hose reel connector is protected with a cover to minimise inadvertent damage being caused. The hose reel is equipped with a winding handle to allow the hose to be easily re-wound onto the reel after use. Outgoing hose distribution is also controlled with a braking system in order to prevent unnecessary unwinding and potential entanglement. The Dräger PAS AirPack 1 benefits from the world renowned, tried and tested, pneumatics system used on Dräger's successful PSS range of compressed air breathing apparatus. The system incorporates a safety pressure relief valve and the pressure reducer is shrouded in a protective plate for additional safety.

The PAS AirPack has been ergonomically designed to facilitate ease of operation, general handling and mobility.

The Module comprises of:

- Robust welded durable steel frame coated, for corrosion protection, with a tough black anti-static polymeric powder coating.
- Stainless steel fittings.

#### Pneumatics

The Dräger PAS AirPack 1 Trolley module incorporates the following pneumatic elements;

- Pressure reducer suitable for connecting breathable quality air at an input pressure of either 200 or 300 bar.
- Pressure reducer suitable for supplying breathable quality air at an outlet medium pressure of 8 bar nominal. (6 to 10 bar)
- Vent valves, to allow for the independent charging if an individual cylinder.
- High Pressure (HP) gauge, indicating cylinder pressure.
- Medium Pressure (MP) gauge, indicating cascade system or ring main pressure.

#### Safety features

- Pressure relief valve, to relieve medium pressure from air hoses.
- Whistle Warning Unit – High pressure (HPWWU), indicating cylinder pressure to a volume of approximately 55 bar
- Whistle Warning Unit – Medium pressure (MPWWU) for use with independent air line source. Indicating cascade system or ring main pressure at approximately 4.5 bar.
- Suitable for use in explosive atmospheres (ATEX zone 1)

#### Performance

The high performance pressure reducer assembly of the Dräger PAS AirPack 1 is incorporated in the main pneumatic manifold assembly located behind the control panel. Functioning at inlet pressures of 200 or 300 bar the reducer provides a controlled outlet operating medium bar-pressure supply of 8 bar nominal. (6 to 10 bar).

A pressure relief valve, incorporated into the manifold, ensures that any 'over pressure' (possible failure of the reducer) will not enter the medium pressure airline system.

# Dräger PAS Airpack 1 Trolley

## TECHNICAL SPECIFICATIONS

Input Pressure Cylinder	200 or 300 bar
Input Pressure Airline	6 - 9 bar
Airline Whistle Activation Pressure	4 - 5 bar
Whistle Sound Level	>90 dBA
Operating Temperature Range	-32°C to +70°C

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Airpack 1, including 50 meter hose	1	3352228



## Dräger PAS AirPack 2 Trolley

Designed using leading technology and materials, Dräger's range of heavy-duty airline apparatus is ideal for use where an extended duration of breathing air is called for. Chemical tank cleaning, toxic spillages or certain tasks when working on offshore installations are all made easier and more comfortable when using the Dräger PAS® AirPack 2.



### Dräger PAS AirPack 2

Extended duration breathing apparatus at its best

#### Increased freedom of movement

Uninterrupted air supply is provided by the trolley-mounted cylinder(s) to the wearer via a hose reel. As the PAS AirPack 2 can easily be relocated and therefore positioned in a safe zone which is in close proximity to working area, the user only needs to wear a lightweight harness, such as Dräger's PAS Colt, during operation. This allows the wearer a greater freedom of movement, and less stress and fatigue than they would be subjected to if wearing a conventional self-contained breathing apparatus unit.

#### A well thought through system

The Dräger PAS AirPack 2 is able to accommodate one or two compressed air cylinders of up to 50 litres in capacity and is constructed from an anti-static powder coated steel material.

The unit can be supplied with a fully approved lifting eye, enabling safe transfer when elevated working areas may be unavoidable. The rear wheel of the trolley also incorporates an easy to administer foot brake, which prevents any inadvertent movement of the unit during operation.

It is available with either one or two pressure reducers and two hose reels allowing joint use of the system or for two completely independent systems to run concurrently. A 50 metre length of hose is supplied with Dräger PAS AirPack 2 as standard, this can be extended to a length of 100 metres with a range of extension hoses.

The trolley hose reel connector is protected with a cover to minimise inadvertent damage being caused. The hose reel is equipped with a winding handle to allow the hose to be easily rewound onto the reel after use. Out going hose distribution is also controlled with a braking system in order to prevent unnecessary unwinding and potential entanglement.

The Dräger PAS AirPack 2 benefits from the world renowned, tried and tested pneumatics system used on Dräger's successful PSS range of compressed air breathing apparatus. The system incorporates a safety pressure relief valve and the pressure reducer is

shrouded in a protective plate for additional safety.

#### Pneumatics

The Dräger PAS AirPack 2 Trolley module incorporates the following pneumatic elements:

- Pressure reducer suitable for connecting breathable quality air at an input pressure of either 200 or 300 bar.
- Pressure reducer suitable for supplying breathable quality air at an outlet medium pressure of 8 bar nominal (6 to 10 bar).
- Vent valves, to allow for the independent charging of an individual cylinder.
- High Pressure (HP) gauge, indicating cylinder pressure.
- Medium Pressure (MP) gauge, indicating cascade system or ring main pressure

#### Safety features

- Pressure relief valve, to relieve medium pressure from air hoses.
- Whistle Warning Unit – High pressure (HPWWU), indicating cylinder pressure to a volume of approximately 55 bar
- Whistle Warning Unit – Medium pressure (MPWWU) for use with independent air line source. Indicating cascade system or ring main pressure at approximately 4.5 bar.
- Suitable for use in explosive atmospheres (ATEX Zone 1).

#### Performance

The high performance pressure reducer assembly of the Dräger PAS AirPack 2 is incorporated in the main pneumatic manifold assembly located behind the control panel. Functioning at inlet pressures of 200 or 300 bar the reducer provides a controlled outlet operating medium bar-pressure supply of 8 bar nominal (6 to 10 bar).

A pressure relief valve, incorporated into the manifold, ensures that any 'over pressure' (possible failure of the reducer) will not enter the medium pressure airline system.

## Dräger PAS Airpack 2 Trolley

### TECHNICAL SPECIFICATIONS

Weight	Depending on pneumatics Hose reel and lifting eye 57.5 to 83.5 kg
Input Pressures Cylinder	200 - 300 bar
Output Pressures Airline	6 - 9 bar
Airline Whistle Activation Pressure	4 - 5 bar
Whistle Sound Level	>90 dBA
Operating Temperature Range	-32°C to +70°C

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Airpack 2 Trolley, including 2x hose reel and 2x 50 meter hose and lifting eye	1	3352236

## Dräger PAS® Filter Airline Equipment

PAS® Filters reliably clean air, e.g. from an existing high-pressure network, from liquid and solid particles, including oil vapour and smell. This means that you get breathing air which even exceeds the specifications of DIN EN 12021.



**Dräger PAS Filter Airline Equipment**  
For reliable clean air

### Wall-mounted or portable

The PAS Filters can be mounted to the wall or placed on the floor. This enables users of breathing apparatus to move in all directions without kinking the hoses. The portable version with carrying handle and side connections has three legs which prevent it from becoming dirty. They also ensure a firm hold on uneven surfaces.

### Manually adjustable air pressure

The primary pressure from the line can be easily adjusted at the filter using a key. This means that you can connect compressed air breathing apparatus according to DIN EN 14594 for positive pressure and normal pressure masks. The set pressure is displayed on the manometer directly at the filter.

### Compatible with all Dräger breathing air systems (e.g.):

- Dräger PAS Lite
- Dräger PAS Colt
- Dräger PAS Micro
- Dräger PAS AirPack
- Dräger ABIL

### Further advantages

- two connection options: for max. three (760 L/min) or max. five persons (1,080 L/min)
- included in the scope of supply: active carbon and particle filters for solid and liquid particles incl. humidity, oil droplets and smells
- optional: Pre-filter for heavy soiling
- robust, stable housing made of polyethylene

## TECHNICAL SPECIFICATIONS

Dimensions (H x W x D)	430 x 280 x 162 mm
Weight	4.5 kg - 6.5 kgs
Maximum capacity	760 / 1,080 L/min
Coalescing filter	Yes
Activated carbon filter	Yes
Maximum inlet pressure	16 bar
Inlet	F3000/3500: 1/4" BSP (female)
Outlet	3 / 5 x CEJN

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS F3500 P 760 (L/min) with pre-filter 3 x CEJN portable 6.0 kg	1	3359922

## Airline Hoses

For the new range of compressed line breathing apparatus you can choose from compressed air hoses of various lengths. The hoses are available with CEJN couplings and 1/4" external thread to allow other coupling systems to be used too.



### Airline hoses

Flexible hoses, suitable for heavy work

### Applications

These compressed hoses make for optimal conditions when working in confined spaces such as when cleaning the deck on a ship, tanks and working in sewers. Additionally, these hoses are well-suited to paint jobs because they are free of paint-affecting substances (e.g. silicone).

### Flexibility and low weight

What is special about these hoses is their flexibility and low weight. In highly polluted environments where there is little oxygen, the wearer can work with a high degree of breathing comfort and little additional physical stress.

### Benefits

- light, flexible hoses, suitable for heavy work
- electrical conductivity of the entire hose, including couplings (anti-static)

- the hose is free of paint-affecting substances (e.g. silicone)
- also suitable for use in difficult conditions: hoses do not kink and can withstand being stepped on and pulled
- for use at temperatures from -30°C to +60°C
- chemical resistant

### Electrostatic properties

- Cover 1 KΩ /m – 100 MΩ/m
- Tube 1 KΩ /m – 100 MΩ/m

### Hose coupling

- End 1 - Dräger standard Rectus 96KS series male coupling: Interchangeable with CEJN 341/342 series and Parker CJ series
- End 2 - Dräger standard Rectus 95KS series female coupling: Interchangeable with CEJN 341/342 series and Parker CJ series

## TECHNICAL SPECIFICATIONS

Hose material	Reinforcement: PVA Inside: NBR Outside: NBR/PVC
Colour	Black
Inside diameter	7,0mm ± 0,4mm
Outside diameter	16,4mm ± 0,6mm
Concentricity	Max 0,5mm
Weight	0,218g/m
Operating pressure	30 BAR (60 Bar burst pressure)
Operating temperature	-30°C to +100°C
Tensile strength	1000N minimum
Bend radius	1000N minimum
Approvals	EN14593-1:2005, EN14594:2005

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Compressed airline hoses 3 meter, CEJN couplings	1	3352463
Compressed airline hoses 5 meter, CEJN couplings	1	AL01260

## Airline Hoses

Description	Unit Sales	Articlenr
Compressed airline hoses 10 meter, CEJN couplings	1	AL01261
Compressed airline hoses 20 meter, CEJN couplings	1	AL01262
Compressed airline hoses 30 meter, CEJN couplings	1	3352467
Compressed airline hoses 45 meter, CEJN couplings	1	AL01263
Compressed airline hoses 50 meter, CEJN couplings		3352468

# Dräger ABIL R Valve System

Simple, but effective protection: the compressed airline system ABIL-R offers comfortable respiratory protection during long-term stationary applications.



**Dräger ABIL R**  
Low cost maintenance

#### Constant air inlet

Breathing resistance is low due to a constant air inlet.

#### Low weight

The ABIL-R weighs approximately 450 grams and is therefore especially light.

#### Can be combined with mask

The device can be combined with a full face mask or half mask and is particularly well-suited for the supply from stationary compressed air systems.

#### Optional output

The ABIL-R has an optional output for compressed-air tools.

#### Individually adjustable

Because the valve can be regulated, the air inlet of the device can be individually adjusted. At 8 bar operating pressure, 300 to 1000 liters per minute are supplied.

#### Without consumables

The compressed airline system is particularly cost-effective because it has a modular design and no consumables.

#### Suitable for narrow spaces

The device is well-suited for work in narrow spaces.

## TECHNICAL SPECIFICATIONS

Compressed air supply hose	max. 50 m
Breathing air	according to EN 12021, do not use oxygen or oxygen-enriched air
Temperature	- 10°C to + 60° C, in use
Operating pressure	7 to 10 bar
Air volume flow	300 L/min to 1000 L/min
Tensile strength	>1000 N
Approval	EN 139

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger ABIL-R-1	1	AL01265

# Dräger Automatic Switch Over Valve

Fully automatic switching from external air to SCBA air and from SCBA air to external air. Provides an uninterrupted air supply to the wearer.



### Warning device

A warning device warns that the wearer is now breathing from cylinder compressed air.

### Uninterrupted air supply

If the external air supply fails, then the unit will automatically switch to the compressed air breathing apparatus for its supply of air.

During the switch over operation the Dräger ASV maintains positive pressure within the facemask at all times.

### Low profile and light

Due to its compact design the Dräger PAS ASV can be used easily in confined spaces.

## Dräger Automatic Switch Over Valve

Uninterrupted airtsupply

## TECHNICAL SPECIFICATIONS

Weight	350 gr
Dimensions	130 x 54 x 32 mm
Supply pressures	Compressed Air Breathing Apparatus - Nominal 7.5 bar External air source -6 to 10 bar
Switching pressures	From external source -4.0 to 5.0 bar To external air source -5.0 to 5.8 bar
Warning device volume	90dba
Operating temperature range	-30°C to +70°C
Approvals	Approved to prEN14593 pt1 and EN139 For use with Compressed Air Breathing Apparatus approved to EN137 and EN402

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Automatic Switch Over Valve - PAS Colt	1	3354140
Dräger Automatic Switch Over Valve - Permanent fit Breathing Apparatus	1	3354142

## Poseidon PE 100

The Poseidon edition stands for an excellent price/performance ratio at very high quality. This unit range has been developed for reliable operation combining proven core components from Bauer with a simple and robust chassis. The PE 100 is by far the smallest and lightest compressor unit of the PE range. With its three drive variants petrol, three-phase and single-phase alternating current it is suitable for a wide variety of applications, whether ashore, in vehicles or on the high seas.



**Poseidon PE 100**  
Reliable operation

### Mobile and versatile in application

Whether as a breathing air compressor for diving groups, fire brigades and on ships, or for filling cartridges for competition marksmen, the possible applications of the PE 100 are almost unlimited. Due to its low weight, compact design and small dimensions, the PE 100 is easy to transport and fits comfortably into almost any car trunk. The petrol driven version can be operated without an electric power supply even in the remotest places. With an alternating current drive it is suitable for the normal house mains.

### Pure breathing air

In the new purification system P11, the sophisticated filter technology from Bauer is

used to provide an air quality markedly better than the strict safety limits of the breathing air standards DIN EN 12021.

### Quality and service

The compressor block of the PE 100 is manufactured by Bauer. Over 50,000 examples of this model have been sold over the last 15 years and perform their task worldwide with their legendary reliability. The sophisticated technology makes particularly long maintenance intervals possible. This is easy on the purse and helps to limit the annoying shutdown times of the compressor during necessary service works to a minimum.

## TECHNICAL SPECIFICATIONS

Weight	Approx. net 44 kgs
Dimensions	660 x 350 x 420 mm
Pressure	200/300 bar
Drive	3-phase 200/300 bar 400 V, 60 Hz
F.A.D.	100 l/min
C.F.M.	3,5
Filling rate	2,0
Drive kW	2,2
Drive HP	3,0

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Poseidon PE 100-TE (200 bar)	1	84053201
Poseidon PE 100-TE (300 bar)	1	84053202
Poseidon PE 100-TW (single phase, 230 V, 60 Hz)	1	84053203



# Poseidon PE 250 HE

Horizontal design, for a space-saving installation. The PE 250 HE horizontal model is by far the most compact high pressure breathing air compressors in its class.



## Poseidon PE250 HE

For space-saving installation

### Space-saving

Owing to the space-saving arrangement of block and drive, the HE range requires a minimum of floor space in spite of its high throughputs. The standard version comes already equipped with automatic condensate drain and easy-to-use control.

### Robust compressor block

- piston rings made of a newly developed hightech synthetic material offer outstanding wear values
- oil cooling in the final compression stage for minimal wear and tear and for a longer life
- interstage and afterstage coolers made of stainless steel against corrosion
- robust low pressure oil pump with oil filter for effective lubrication and extended oil change intervals

### Automatic operation

- a control in conjunction with the final pressure cutout controls the independent switching-off of the compressor
- convenience in use is achieved by means of an automatic condensate drain: the

condensate is drained when the unit is switched on and off, as well as at regular intervals during operation.

- elapsed time meter for reading off the pending maintenance and service intervals

### P-Purification system

- a filter technology perfected over a decade guarantees breathing air of superior in quality to DIN EN 12021
- our original cartridges safely remove humidity, oil and pollutants from the compressed air

### Control at a glance

- exclusive from BAUER and unique worldwide: the B-TIMER (optional) for monitoring required filter changes and maintenance intervals
- the minicomputer counts the operating hours and indicates reliably the remaining life time
- pending cartridge changes or maintenance intervals are conspicuously indicated

## TECHNICAL SPECIFICATIONS

Weight	Approx. net 230 kgs
Dimensions	1100 x 690 x 990 mm
Drive	3-phase, 400 V, 50 Hz
F.A.D.	250 l/min
R.P.M.	1450 min.
Filling rate	0.8 min.
Drive kW	5.5
Drive HP	7.5
Purification system Triplex®	P31 / P42

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Poseidon PE 250 HE	1	BK0PEHE250

## Poseidon PE 300 HE

Horizontal design, for a space-saving installation. The PE 300-HE horizontal model is by far the most compact high pressure breathing air compressors in its class.



**Poseidon PE300 HE**  
For space-saving installation

### Space-saving

Owing to the space-saving arrangement of block and drive, the HE range requires a minimum of floor space in spite of its high throughputs. The standard version comes already equipped with automatic condensate drain and easy-to-use control.

### Robust compressor block

- piston rings made of a newly developed hightech synthetic material offer outstanding wear values
- oil cooling in the final compression stage for minimal wear and tear and for a longer life
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### Control at a glance

- exclusive from Bauer and unique worldwide: the B-TIMER (optional) for monitoring required filter changes and maintenance intervals
- the minicomputer counts the operating hours and indicates reliably the remaining life time
- pending cartridge changes or maintenance intervals are conspicuously indicated

## TECHNICAL SPECIFICATIONS

Weight	Approx. net 250 kgs
Dimensions	1100 x 690 x 990 mm
Drive	3-phase, 400 V, 50 Hz
F.A.D.	300 l/min
R.P.M.	1800 min.
Filling rate	0.7 min.
Drive kW	7.5
Drive HP	10.0
Purification system Triplex®	P31 / P42

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Poseidon PE 300 HE	1	BKOPEHE300

## Bauer Junior II - E Compressor

The most compact highly mobile one of our diving compressor range. Due to its toughness and reliability the Junior has become a global classic. The Bauer Junior II offers an even more compact design and numerous improvements in details. The patented TRIPLEX® filter system guarantees purest breathing air according to DIN EN 12021 (formerly DIN 3188).



### Invest in Bauer Quality

The Bauer Junior II is a product based on more than 50 years of experience and strict Bauer. Quality Management according to DIN EN ISO 9001. This is the uncompromising quality down to the last detail that has made us the global market leader for breathing air compressor units.

### Easy Handling

- due to symbolic figures it is child's play to operate the compressor
- comprehensive documentation facilitates maintenance work

### Toughness

- durable, long-life compressor block
- new fan and pulley protection made of unbreakable
- UV-resistant special plastic, which improves cooling air flow for increased compressor efficiency
- filling device: stainless steel; filling hose: kevlar

### Safe Handling

- moving parts such as v-belt, pulley and fan have optimal protection
- the GS-sign certifies the observation of all relevant safety regulations

### Bauer Junior II Compressor

Uncompromising quality

### TECHNICAL SPECIFICATIONS

Medium	Air
Intake Pressure	Atmospheric
Intake Temperature	+5°C to +45°C
Ambient Temperature	+5°C to +45°C
Setting of safety valve	225 or 330 bar
Filling pressure	200 or / and 300 bar
Capacity	100 l/min measured at bottle filling 0 to 200 bar Tolerance ± 5% at +20°C Ambient Temperature
Speed	2300 1/min
Number of Compression stages	3
Number of Cylinders	3

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Bauer Junior II-EH Compressor 400V 50Hz	1	BKOJ3EH00

# Bauer Oceanus

For a professional performance, which offers toughness, mobility and greater air capacity. Bauer Oceanus is designed to go on vessels, diving boats and expeditions.



## Bauer Oceanus

Designed to go on vessels, diving boats and expeditions

### Durable and extremely tough

- for best possible resistance to corrosion frame, handle and safety-filling device are made of stainless steel. Filling hose is made of kevlar. Inter- and after coolers are made of galvanized steel.
- piston rings made of a newly developed high-tech synthetic material offer outstanding wear values
- the new low-pressure lubrication guarantees an even higher life span of all moving parts

### Extremely seaworthy

The large capacity of the oil sump allows operation in extreme inclinations of up to 30° 1).

### Safe handling

Moving parts such as v-belt, pulley and fan are fully protected.

### Resistance to corrosion

The use of stainless steel and kevlar for frame and filling device ensures extreme resistance to corrosion.

### Weight

The light weight and compact unit is portable by a single person and fits in every boot.

1. Max. allowable inclination of petrol version 20° only due to Honda engine.
2. Available with switch over device 330 / 225 bar or 225 bar/330 bar alternatively.
3. With telescopic intake tube and HONDA motor with telescopic intake tube and HONDA motor.

## TECHNICAL SPECIFICATIONS

Weight net	47 kgs
Dimensions	790 x 350 x 420 mm
Type max. 330 bar 2)	OCEANUS - B
Drive	4 - stroke petrol 3)
FAD l/min *)	140 *) cylinder filling from 0 to 200 bar
min -1	2300
Filling rate min **)	1.4 **) filling rate for 1 l cylinder capacity from 0 to 200 bar
Engine kW	4.0
Engine HP	5.5

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Bauer Oceanus	1	BK00CE00

# Dräger Aerotest Simultan HP

Dräger Aerotest Simultan HP is used to determine the quality of respiratory air in high-pressure applications. In combination with the new Dräger Oil Impactor the system offers a unique quality level for the monitoring of compressed air.



## Dräger Aerotest Simultan HP

All necessary components in one complete system

### Monitored breathing air

By using the Dräger Aerotest Simultan HP, the quality of the breathing air from a compressor or a compressed air cylinder can be tested. The application of the test system ensures the reliable testing in accordance with the purification standard EN 12 021. The Aerotest product family is based on the well known Dräger-Tubes® - a reliable and quick test method to detect and measure possible toxic gases. The Dräger Aerotest Simultan HP enables the quantitative detection of various potentially harmful substances, e.g. carbon monoxide, carbon dioxide, water vapor and oil in dispersing compressed air. The values can either be determined individually or simultaneously.

### Fast and simple application

Using normal tools, the measuring instrument can be connected via a G 5/8 connector to the high-pressure air network. It takes five minutes until the Aerotest displays an indication about the degree of contamination of the filled breathing air.

### The Dräger Oil Impactor

The new Dräger Oil Impactor is especially designed to detect oil aerosols in compressed air. It is a system that, besides measurements of normal oils, enables the measurement of synthetic oils independent of the oil type and viscosity. Quantitative results are easily visible via a tiered structure.

### Always ready for use

All components of the Dräger Aerotest Simultan HP are arranged in a carrying case and therefore always ready for use.

## TECHNICAL SPECIFICATIONS

Dimensions (L x W x H)	350 x 300 x 85
Weight	approx. 3.0 kgs
Supply Pressure	200/300 bar
Connection	G 5/8
Flow	0.2 and 4.0 L/min

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Aerotest Simultan HP	1	6525951

## Dräger SPC 3800

Chemical protective suits are used whenever and wherever a person's skin has to be protected from the harmful effects of hazardous liquids. If there is a risk that the entire body may come into contact with solid or liquid chemicals, complete coveralls are the only way to ensure full protection.



**Dräger SPC 3800**  
Splash protection

### Light and comfortable

The Dräger SPC 3800 (Splash Protective Clothing) is a light and comfortable, liquid-tight protective suit. It is made of Tychem® F material and is designed for disposable use. The donning and doffing procedures are especially easy because of the zipper concept from shoulder to shoulder at the back protected by a double flap which is made of the same Tychem® F material. Furthermore, the zipper does not interfere with the wearer's work and provides perfect protection during the operation and decontamination phase.

### You choose

The Dräger SPC 3800 will be available in the colours grey and orange. The grey version is equipped with heat-sealed laminated safety gloves. The orange version has Butyl gloves attached. The feet are protected by flexible socks with cuffs which are also made of the Tychem® F material. Dräger also offers a suit with a modified sock that optimises conductivity.

### Flexible use

The handling and wearing comfort is provided by the thin flexible form. Thereby, the face cuff

can be alternatively worn on or underneath the double sealing frame of the mask. The Dräger SPC 3800 uses the same face cuff as the Dräger CPS 7800. Due to the separate packaging, the user can very easily identify if a suit has already been used. The one-piece coveralls with liquid-tight heat-sealed seams are optimized for use with full face masks together with a breathing apparatus, powered air purifying respirator or compressed airline equipment.

### Reliable protection

These coveralls provide protection against ultra-fine dusts and powders, against many inorganic acids and alkalis as well as a broad spectrum of organic chemicals in liquid form. The Dräger SPC 3800 is CE certified and classified according to category III as chemical protective suit type 3, 4, 5 and 6. Furthermore, the suit meets all requirements of the SOLAS approval. The main customer groups are within industrial applications and the shipping market. The coveralls are available in six sizes (S, M, L, XL, XXL, XXXL).

## TECHNICAL SPECIFICATIONS

Material	Tychem® F
Sizes	Size M: body height from 1.68 m to 1.76 m Size L: body height from 1.74 m to 1.82 m Size XL: body height from 1.80 m to 1.88 m Size XXL: body height from 1.86 m to 1.94 m
Weight	840 g
Color	orange
Zipper with double flap	horizontal on backside
Gloves	Butyl® gloves
Temperature	-73 °C to +98 °C
Approvals	EN 14605 Category III, Type 3 and 4, EN ISO 13982-1 Category III, Type 5, EN 13034 Category III, Type 6 EN 1073-2, EN 14126, EN 1149-1, SOLAS

# Dräger SPC 3800

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger SPC 3800, size M	1	R57375
Dräger SPC 3800, size L	1	R57376
Dräger SPC 3800, size XL	1	R57377
Dräger SPC 3800, size XXL	1	R57378

## Dräger SPC 2400

Chemical protection overalls are always used when it is important to protect a person's skin from harmful influences or hazardous, liquid substances. The Dräger SPC 2400 Flexothane provides light protection against low concentrations of acids, logs and ammonia. Resistant to crude oil, machine oil, petroleum, benzine and diesel.



**Dräger SPC 2400**  
Chemical protection overall

### Features

The splash-proof or liquid-tight Dräger SPC 2400 chemical protection overalls are light and comfortable splash protection clothing, made from textile that is water-vapour permeable or PVC-layered.

The one-piece overalls, with heat-sealed seams, are designed for use with disposable masks, filter masks, full-face masks with compressed air breathing apparatus, or compressed air line systems.

Both overalls are washable, thus making them reusable. Washing by hand is recommended, however the Dräger SPC 2400 Flexothane can also be washed by machine at a low washing movement.

The overalls are CE certified and classified as chemical protection types 4 and 3.

### Dräger SPC 2400 Flexothane

The one-piece overall is equipped with a hood with drawstring, sleeves with elasticated ends and cuffs, as well as reflective strips on the upper arms. The ends of the legs can be adjusted using press studs.

The zip fastener runs vertically on the front of the overall, and is protected by a double flap. This overall offers protection against crude oil, machine oil, petroleum, lubricants, etc. The light, water-vapour-permeable material offers a high degree of comfort and maintains its flexibility, even at very low temperatures.

### Dräger SPC 2400 PVC

The one-piece overall is equipped with an elasticated hood with a special fastening beneath the chin. The sleeves have elasticated ends and cuffs. The elasticated leg ends have a tie bar and cuffs that can be adjusted using hook and loop fastener strips. Furthermore, the elbow and knee areas are reinforced.

The vertical zip fastener with triple protection is located on the front. This overall provides protection when cleaning, e.g. when using a high-pressure cleaner or when cleaning tanks. The robust material also offers protection when using cleaning agents, low concentrations of acids and base, and inorganic salts.

## TECHNICAL SPECIFICATIONS

Dräger SPC 2400 - Flexothane	
Weight	0.7 kg
Color	Red /dark-blue
Material	Water-vapour-permeable textile
Washability	Restricted machine wash (max. 40° C)
Approvals	NEN-EN 14605 (type 4)
Dräger SPC 2400 - PVC	
Weight	2 kg
Color	Yellow
Material	Water-vapour-permeable textile
Washability	Handwash max. 30° C
Approvals	NEN-EN 14605 (type 3)



# Dräger SPC 2400

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger SPC 2400 Flexothane, size M, 164 - 182 cm, chest size: 96 - 104 cm	1	R54522
Dräger SPC 2400 Flexothane, size L, 170 - 188 cm, chest size: 104 - 118 cm	1	R54523
Dräger SPC 2400 Flexothane, size XL, 170 - 188 cm, chest size: 112 - 120 cm	1	R54524
Dräger SPC 2400 Flexothane, size XXL, 176 - 194 cm, chest size: 120 - 128 cm	1	R54998
lIR gloves, size 10 (1 pair)	1	R53531
lIR gloves, size 11 (1 pair)	1	R53560

# Dräger Workmaster-Pro Himex

For emergency response to hazardous materials, it is essential to prevent dangerous chemicals causing permanent injury to personnel or damage to property and the environment. Such responsible work demands equipment that matches the responsibility.



**Dräger Workmaster-pro Himex**  
For emergency response

## Applications

The Dräger WorkMaster pro-ET chemical protective suit protects the equipment wearer from gaseous, liquid, aerosol and solid chemicals. The breathing apparatus is worn outside the suit.

## Features

The suit material consists of high-quality HIMEX® substrate fabric, which features extremely high mechanical strength and chemical resistance and also withstands darting flames.

The components of the protective suit can be put together to suit specific applications with the help of a modular system and can be matched to the wearer to achieve maximum comfort in the various work situations. A choice of different suit sizes is available in both BLUE and ORANGE. The protective gloves and safety boots are chemical-proof, easily replaceable and joined to the suit.

## Full integration

The visor of the permanently integrated fullface mask consists of composite safety

glass. A ventilation system can also be integrated into the suit, and helps to keep the body cool and remove moisture. The wearer benefits from the agreeable conditions inside the suit and can thus enjoy substantially improved comfort. In addition, the suit can be connected to an external source such as a compressed air respirator.

HIMEX® is a registered trademark of Drägerwerk AG, Lübeck.

The Dräger WorkMaster pro-ET (ET = Emergency Team) chemical protective suit is a gas-tight, reusable, single-piece chemical protective suit compliant with EN 943-1:2002, Type 1b.

It is also tested and approved to EN 943-2:2002, Type 1b - (ET) and thus complies with the latest vdf guideline 08/02:2002-11(3). Furthermore, the suit has the European MED Steering Wheel approval (Marine Equipment Directive) of the "GL LUXEMBOURG" and the Japanese marine approval "NIPPON KAIJI KYOKAI".

## TECHNICAL SPECIFICATIONS

Sizes	M from 160 cm - 175 cm L from 170 cm - 185 cm XL from 180 cm - 190 cm XXL from 185 cm - 200 cm
Weight	with hood approx. 6.5 kg with integrated full-face mask approx. 7 kgs (without ventilation system)
Color	outside / inside - blue / grey - orange / grey
Temperature	in use -40 °C to +60 °C in storage -5 °C to +25 °C
Suit material	(substrate fabric) with HIMEX®/hybrid material

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Workmaster-Pro Himex size M	1	R29400/M
Dräger Workmaster-Pro Himex size L	1	R29400/L
Dräger Workmaster-Pro Himex size XL	1	R29400/X
Dräger Workmaster-Pro Himex size XXL	1	R29400/XX

## Dräger CPS 7900



### Dräger CPS 7900

Gas suit, tailor-made for use under extreme conditions

Tailor-made for use under extreme conditions: The gas-tight Dräger CPS 7900 provides excellent protection against industrial chemicals, biological agents, and other toxic substances. Its innovative material qualifies the CPS 7900 equally well for work in explosive areas and for handling cryogenic substances.

#### Protection in a class of its own

The chemical protective suit Dräger CPS 7900 was developed to protect its wearer when handling toxic or hazardous materials and to provide much needed support for a variety of dangerous tasks. The suit material D-mex offers unique resistance to various substances as well excellent protection against mechanical effects, liquefied gases, and flash fires. The Dräger CPS 7900 meets and exceeds the requirements of international standards of fire departments, search and rescue organizations, and industry for reusable protection suits.

#### D-MEX: 5-Fold safety

The suit's innovative and unique material D-mex™ consists of five layers. An especially sturdy elastomer layer as well as a barrier layer resistant to chemicals is on the inside as well as the outside. This allows the suit to retain its full protective capacity even when the material on the outside becomes damaged. Its electrostatic properties make it possible to use the suit in all explosive areas. If a spark occurs in spite of this remarkable fabric, the flame-retardant and self-extinguishing material protects its wearer from serious burns. The flexibility of D-mex™ even makes it possible to handle liquefied gases such as ammonia at a contact temperature of -80°C.

#### Outstanding wearing comfort

The chemical protective suit reduces the stress during the already difficult work in hazard zones and danger areas. With its new, ergonomic cut and five available sizes, the suit

offers its wearers with a body height of 1.50 m to 2.10 m the highest degree of mobility during a wide variety of activities and tasks. Moreover, the clearly lighter weight and better drape of the suit material adjusts to the wearer's movements and offers the full range of flexibility.

#### Ready at any time

Innovative materials and new service concepts made it possible to significantly reduce time and expenses for regular testing and expenses. In addition, the suit can be easily cleaned and disinfected. This means the time and expense spent over the 15 years of service life of the suit is much less.

#### Ready for the extraordinary

Accessories are available to customize the chemical protective suit to meet your specific needs and requirements, thereby expanding your range of application options. Including pressure gauge holder, height adjustment, anti-fog visor and D-Connect.

#### Never again gasping for a breath

Breathing air is a scarce commodity when it comes to runs involving toxic materials or hazardous atmospheres. The route to the deployment location and the decontamination location must be bridged. The actual tasks must be completed. This is followed by a careful decontamination so that suits can be removed. The amount of air available in a compressed air breathing apparatus often is insufficient to cover both activities. For this reason the suit can be equipped with optional pass thrus.

### TECHNICAL SPECIFICATIONS

Sizes

Size S for body heights of 1.50 m to 1.65 m  
 Size M for body heights of 1.60 m to 1.75 m  
 Size L for body heights of 1.70 m to 1.85 m  
 Size XL for body heights of 1.80 m to 2.00 m  
 Size XXL for body heights of 1.95 m to 2.10 m

Color

Blue or orange

Zipper

Closes at top or bottom

Cover flap with hook and loop fastener or snaps

## Dräger CPS 7900

Integrated boots or socks	Safety boots in size 43 to 50 Gas-tight socks in 3 sizes from 40 to 50
Gloves	Previous EN combination in size 9 to 11 New EN combination in size 10 to 11
Approvals	EN 943-1:2002 EU, EN 943-2:2002, BS 8467, EN 1073-2, EN 14126, SOLAS (pending), EX-PROTECTION

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CPS 7900, Blue or Orange	1	R29500

## Dräger CPS 7800

The reusable gas-tight Dräger CPS 7800 (type 1b) provides excellent protection against gaseous, liquid, aerosol and solid hazardous substances even in explosive areas. Due to its innovative material and the new suit design it offers increased flexibility and comfort when entering confined spaces and working with cryogenic substances.



**Dräger CPS 7800**  
Chemical protective suit for industrial use

### Reliable protection

The Dräger CPS 7800 (Typ 1b) protects against a multitude of possible dangers when dealing with hazardous substances. The novel antistatic material D-mex™ offers excellent chemical resistance and protection against mechanical influences. The Dräger CPS 7800 exceeds the requirements of international industry standards for reusable protective suits.

### D-mex™: 5-fold safety

D-mex™, the unique suit material, consists of five layers and its reliability has been proven during hazardous substance deployments by the fire service. Tear-proof textile forms the middle layer; on the inside and outside there is a particularly robust elastomer layer, as well as a chemically high-resistant barrier layer. With this design, the suit retains its full protection performance even if the outer material is damaged.

### Fitted, flexible and comfortable

The Dräger CPS 7800 increases the wearing comfort even during difficult work in hazardous areas. With its ergonomic cut and five sizes to choose from it offers the highest degree of flexibility for wearers ranging from 1.50 m to 2.05 m in height. In addition, the light and soft suit material adapts ideally for a full range of movement. Offered as an option, individually adjustable braces provide even greater wearing comfort to the user and an improved fit of the suit. A newly designed fit means you don the Dräger CPS 7800 with more ease, can put on and remove the suit by

yourself, and shut the zip fasteners without assistance.

### Always ready

Time and expense for regular testing could be reduced significantly through innovative materials and new service concepts. The suit can also be cleaned and disinfected automatically without complications. This reduces the effort required to keep the suit ready for use over its lifetime of up to 15 years. An unused suit with face cuff can even be stored for five years without servicing. If repair or maintenance is required, this can be performed by the service technician. Of course, DrägerService is equally happy to perform these tasks.

### Ready for the extraordinary

With optional accessories, the Dräger CPS 7800 can be adapted to be even more individual to meet your specific requirements and in turn extend your deployment options further. The suit is available with an integrated Panorama Nova full face mask or face cuff. Stress reduction, especially during prolonged use, can be achieved by equipping the suit with ventilation systems. The Dräger CPS 7800 features an optional ventilation system with the integrated regulating valve PT 120 L that can be connected to different breathing air sources. The suit can also be printed with a customer-specific design, if desired. The Dräger CPS 7800 training suit permits you to perform exercises in realistic scenarios outside contaminated areas with the same equipment characteristics.

## TECHNICAL SPECIFICATIONS

Suit material	D-mex™
Sizes	Size S for body heights from 1.50 m to 1.65 m Size M for body heights from 1.60 m to 1.75 m Size L for body heights from 1.70 m to 1.85 m Size XL for body heights from 1.80 m to 1.95 m Size XXL for body heights from 1.90 m to 2.05 m
Color	Blue or orange
Integrated boots or socks	Safety boots in sizes 43 to 50 Gas-tight socks in 3 sizes from 40 to 50

## Dräger CPS 7800

Face connection	Face cuff (gas-tight) Integrated full face mask
Gloves	Previous EN combination (Viton) in sizes 9 to 11 Previous EN combination (Viton/Butyl) in sizes 9 to 11 New EN combination (Silvershield/Tricotril) in sizes 10 to 11
Weight	With face cuff and socks approx. 3.5 kg without ventilation system With face cuff and boots approx. 5.4 kg without ventilation system With full face mask and socks approx. 4.3 kg without ventilation system With full face mask and boots approx. 6.2 kg without ventilation system
Temperature	in use -30 °C tot +60 °C in storage -30 °C tot +60 °C
Approvals	EN 943-1:2002, EN 943-2:2002 (ET), EN 1073-1/2, EN 14126, EN 14593, vfdb 08/01:2006-11, BS 8467, SOLAS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CPS 7800, Blue or Orange	1	R29650/L
Dräger CPS 7800, Blue or Orange	1	R29650/M
Dräger CPS 7800, Blue or Orange	1	R29650/XL
Dräger CPS 7800, Blue or Orange	1	R29650/XXL

## Dräger CPS 6800

If you are looking for protection against cryogenic hazardous substances and low concentrations of acids and alkalis then the Dräger CPS 6800 chemical protective suit is the right choice. The new and innovative suit design is more flexible and allows you to comfortably enter confined spaces.



### Dräger CPS 6800

Chemical protective suit for industrial use

#### Outstanding protection

With its external self-contained breathing apparatus the gas-tight Dräger CPS 6800 protects against gaseous, aerosol-based, liquid and solid hazardous substances. The Umex suit material guarantees mechanical strength and provides maximum wearing comfort. The outstanding flexibility of the material makes the reusable suit ideal for handling cryogenic media and working in cold environments.

#### Snug, flexible and comfortable

The Dräger CPS 6800 guarantees wearing comfort, even during difficult work in hazardous areas. The CPS 6800 provides maximum freedom of movement with its innovative ergonomic cut in five different suit sizes. In addition, the light and soft suit material adapts perfectly to your movements and offers outstanding flexibility. Optional individually adjustable braces provide the user with even more wearing comfort and ensure a better fit.

#### Perfectly adapted to your needs

The Dräger CPS 6800 is equipped with a radio pocket and has a gas-tight Polyurethane

(PUR) closure system. Safety gloves and safety boots are connected to the suit in a gas-tight manner and can be easily replaced. As an alternative to the securely attached safety boots, the suit can also be equipped with securely attached and gas-tight socks. Alongside the integrated full face mask, the Dräger CPS 6800 also allows for the fitting of a flexible, gas-tight face cuff. This allows you to easily switch between full face masks for a single suit. The integrated PT 120 L control valve gives the Dräger CPS 6800 an optional ventilation system for easy connection to various air sources. This allows the wearers to cool themselves down in order to reduce humidity in the suit.

#### Always ready for use with low service expenses

Regular inspection expenses have been considerably reduced by the new service concept. Any repairs and maintenance work can of course be carried out by Dräger – but equally, be independently performed by your own service personnel. The suit can be easily cleaned and disinfected over its service life of up to ten years.

### TECHNICAL SPECIFICATIONS

Suit material	Umex-material
Sizes	Size S for body heights from 1.50 m to 1.65 m Size M for body heights from 1.60 m to 1.75 m Size L for body heights from 1.70 m to 1.85 m Size XL for body heights from 1.80 m to 1.95 m Size XXL for body heights from 1.90 m to 2.05 m
Color	Red
Integrated boots or socks	Safety boots in sizes 43 to 50 Gas-tight socks in three sizes from 40 to 50
Face connection	Face cuff (gas-tight) Integrated full face mask
Gloves	Butyl gloves in sizes 9 to 11 Viton® / Butyl in sizes 9 to 11 Viton® gloves in sizes 9 to 11 Foil gloves with Tricotril® overgloves in sizes 10 and 11

## Dräger CPS 6800

Weight	Size S for heights between 1.50 m and 1.65 m Size M for heights between 1.60 m and 1.75 m Size L for heights between 1.70 m and 1.85 m Size XL for heights between 1.80 m and 1.95 m Size XXL for heights between 1.90 m and 2.05 m
Temperature	in use -30 °C tot +60 °C (for short-term exposure up to - 80 °C) in storage - 5 °C to + 25 °C
Approvals	EN 943-1:2002, EN 1073-1:1998 / EN 1073-2:2002, EN 14126:2003, EN 14593-1:2005, EN 14594:2005, ISO 16602:2007, SOLAS

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CPS 6800, size L, in transport bag: Including face cuff, safety boots size 43 and gloves size 10	1	R62021
Dräger CPS 6800, size XL, in transport bag: Including face cuff, safety boots size 46 and gloves size 11	1	R62022



## Dräger CPS 5900

The Dräger CPS 5900 is the ideal disposable, gas-tight chemical protective suit for hazmat incidents. Where complete protection against hazardous gases, liquids and particles is of the utmost priority, this lightweight garment is the suit of choice.



**Dräger CPS 5900**  
Disposable chemical protective suit

### The right level of protection

The Dräger CPS 5900 provides excellent protection against a broad range of industrial chemicals as well as warfare agents. Specifically designed for low risk operations, it can be used in a variety of applications such as when taking measurements or transferring hazardous substances in non-explosive atmospheres. As the first chemical protective suit to be approved to NFPA 1994, class 2 and EN 943 part 1&2 (ET), the Dräger CPS 5900 also complies with the requirements of the SOLAS convention (pending). As a result, it fulfills the most demanding international standards of fire fighters and industrial users for limited use, gas-tight protective suits. Where the potential risks might include mechanical stress and flash fire, the heavy duty Dräger CPS 7900 protective suit should be worn.

### Offering even more comfort

Featuring the new Dräger cut, the Dräger CPS 5900 offers improved ergonomics and optimized compatibility with various types of personal protective equipment including the latest breathing apparatus, helmets and other forms of PPE. It can also be worn with twin cylinders or closed circuit breathing

apparatus. Available in 5 sizes, the suit is designed to fit both male and female users from 1.50 m to 2.10 m in height. Made of Zytron 500, the softest laminate material on the market, each seam has been sewn and then hot-air taped internally and externally. The material and production quality allow for a ten-year shelf life.

### Meeting your needs

- Fully encapsulating suit for maximum protection
- Wide front entry on left side for easy donning & doffing
- Zipper fastener (bottom up)
- Double flap zipper protection
- Flexible and foldable two-layer visor offers almost natural field of vision
- Integrated gas-tight socks with boot flaps for use with multiple boot sizes
- Fixed gloves combine butyl outer with laminate inner lining for increased protection against chemicals and punctures
- Kevlar over-glove for additional cut protection
- Integrated waist belt for size adjustment
- Optional with connector for external air supply to extend decontamination phase

## TECHNICAL SPECIFICATIONS

Sizes	Size S: Body height from 1,50 m to 1,65 m Size M: Body height from 1,60 m to 1,75 m Size L: Body height from 1,70 m to 1,85 m Size XL: Body height from 1,80 m to 2,00 m Size XXL: Body height from 1,95 m to 2,10 m
Approvals	NFPA 1994: 2007, EN 943-1:2002, EN 943-2:2002 (ET), SOLAS II-2, Reg.19 (pending)

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CPS 5900, size M, 160 - 175 cm	1	R57782
Dräger CPS 5900, size L, 170 - 185 cm	1	R57783
Dräger CPS 5900, size XL, 180 - 200 cm	1	R57784

# Dräger CPS 5800

The Dräger CPS 5800 is a limited-use chemical protective suit for industrial applications and operations on board that involve a gaseous, liquid or solid hazardous substance.



**Dräger CPS 5800**  
Disposable chemical protective suit

**Comprehensive Protection**

For emergencies or for routine work such as maintenance, repairs and tank cleaning – appropriate protection is always required. With its external self-contained breathing apparatus the gas-tight Dräger CPS 5800 (type 1b) protects against a multitude of substances. The suit meets the highest international requirements of industry, fire departments and shipping. Therefore it fulfills EN 943-1+2:2002, and the SOLAS requirements, so that it is approved for the use on board ships. As a limited-use protective suit its resistance against mechanical influences and flames is not as high as the one from the reusable Dräger CPS 7800.

**Comfortable to wear**

With the proven Dräger design, this suit is very comfortable to wear and is equipped with the flexible Dräger face cuff. The suit is made

of Zytron® 500, a very soft laminate material. All seams are welded in- and outside. This high quality material and the manufacturing techniques provide a long service life of up to ten years.

**Features**

- large opening for donning / doffing (diagonally across the front); with no additional assistance required
- zipper with external chain and a downward direction of fastening
- double flap with continuous hook and loop fastener strap protects zip fastener soft Dräger face cuff
- integrated gas-tight socks with boot flaps for use with multiple boot sizes fixed gloves combine butyl outer with laminate inner lining for increased protection against chemicals and punctures
- Dräger pressure relief valve for discharging air from the suit

**TECHNICAL SPECIFICATIONS**

Temperature	- 30 °C to + 60 °C - 20 °C to + 25 °C	in use in storage
Weight	2,2 kg	
Approvals	EN 943-1:2002 EN 943-2:2002 (ET) SOLAS II-2, Reg. 19 ISO 16602:2007	EU requirements for gas-tight protective suits for industrial applications EU requirements for gas-tight protective suits for use by firefighters Requirements for use on seagoing vessels International requirements for chemical protective suits

**ORDER INFORMATION**

Description	Unit Sales	Article nr
Dräger CPS 5800, size L, 170 - 185 cm	1	R57788
Dräger CPS 5800, size XL, 180 - 190 cm	1	R57789

# Parka Work Jacket

If you are looking for good protection against bad or cold weather, this Parka work jacket is a good choice. Due to the removable lining, this dress is also ideal in spring and autumn.



## Features

- flame retardant
- two loops for gas detection / radio equipment
- two chest pockets
- concealed detachable hood

## Washing instruction

- maximum wash temperature is 40°C. The lifetime is influenced by the type and dosage of detergents.
- do not bleach
- tumble dry not possible
- no ironing allowed
- dry cleaning not possible

## Parka Work Jacket

Waterproof and low exhalation

## TECHNICAL SPECIFICATIONS

Type	Full Option waterproof Parka jacket
Color	Navy - Yellow
Sizes	S - XXXL
Material	99% cotton / 1% antistat - 250 gr/m2
Approvals	rain tight according to EN 343 + A1: 2007 reflections according to EN 471 + A1: 2007 en GO RT 3279: 2008 anti-static according to EN 1149 - 5: 2008 chemical resistant according to EN13034: 2005 + A1: 2009 flame retardant according to EN ISO 14116: 2008

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Parka work jacket, size S	1	07115050
Parka work jacket, size M	1	07115051
Parka work jacket, size L	1	07115052
Parka work jacket, size XL	1	07115053
Parka work jacket, size XXL	1	07115054
Parka work jacket, size XXXL	1	07115055

# Coverall

The safest garment against flash fire. The safety boots need to be ordered separately.



## Features

- FR reflective tape
- central zip with press studs at top
- two zipped chest pockets
- two side swing pockets with trouser access
- two hip patch pockets with rule pocket on right leg
- pen pocket on left sleeve
- length leg: 84 cm, 79 cm, 74 cm
- including logo

## Coverall

The safest garment against flash fire

## TECHNICAL SPECIFICATIONS

Type	Flamebuster Nordic
Color	Dark Blue
Sizes	46 - 62
Material	99% cotton / 1% antistat - 350 gr/m2
Approvals	EN340, EN1149, EN ISO 11611, EN ISO 11612, IEC 61482-2

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Coverall, size 46	1	SG03211
Coverall, size 48	1	SG03212
Coverall, size 50	1	SG03213
Coverall, size 52	1	SG03214
Coverall, size 54	1	SG03215
Coverall, size 56	1	SG03216
Coverall, size 58	1	SG03217
Coverall, size 60	1	SG03218
Coverall, size 62	1	SG03219

# Overall

Well protected at work in hazardous environments. The overall is chemical resistant. The safety boots need to be ordered separately.



### Features

- fixed hood
- zip under double flap with snaps
- 100% waterproof
- windproof
- very strong
- raglan sleeves
- PVC coated
- unlined lining
- acid resistant
- impermeable

### Washing instruction

- maximum wash temperature is 30°C hand wash
- do not bleach
- tumble dry not possible
- no ironing allowed
- dry cleaning not possible

### Chemtex Overall

Safe working at high-risk areas

### TECHNICAL SPECIFICATIONS

Type	Botlek
Color	Green J40
Sizes	M - XXL
Material	ChemTex: double PVC coated polyester fabric; $\pm 360 \text{ g / m}^2$
Approvals	EN 465, EN 343 class 3/1

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Overall, size M	1	SG03332
Overall, size L	1	SG03331
Overall, size XL	1	SG03333
Overall, size XXL	1	07110004

## Safety helmets

For optimal protection of the head, a safety helmet should be adjusted to the size of the head of the user. The usefulness of the helmet duration is determined by , among others , cold, heat, chemicals, sunlight and incorrect use.



### Safety helmet

For comfort, performance and style

#### EVO2® industrial safety helmet

EVO2® features a traditional 6-point polyethylene harness and OneTouch™ slip ratchet. The EVO2® offers the most economical top level protection. Conforms to EN397.

#### Tough HDPE shell

In tests the EVO2® proved far tougher than the EN397 standard required and far tougher than any of its competitors.

#### Harness

Traditional 6-point polyethylene harness.

#### Chamlon™ sweatband

Egyptian cotton core with porous PU coating for maximum sweat absorption. PH neutral, dermatologically tested.

#### 3D precision fitting

Never before has such a precise fit been attainable on an industrial safety helmet, using the unique 1-2-3 point harness depth settings.

#### Adjustment

OneTouch™ Slip Ratchet.

#### Electrical insulation

Meets the EN50365 Class 0 10KV standard. This standard is applicable to electrically insulated helmets used for working live or close to live parts on installations not exceeding 1000Vac or 1500Vdc.

#### Universal slots

Enables firm fitting of a range of Surefit™ safety visors and ear defenders.

#### Optional: Branding

Extra large area for logos on the front, sides, and rear.

#### Instruction of use

- fit helmet on head and fasten strap to ensure fit
- for adequate protection this helmet must be worn with peak facing forward
- ensure the helmet is adjusted to the size of the user's head
- after use the helmet may be cleaned with the use of soap and warm water and dried with soft cloth

#### Limitations of use

Any helmet subjected to severe impact should be replaced immediately. Please check instruction of use from the manufacturer.

### TECHNICAL SPECIFICATIONS

Type	Safety helmet JSP EVO2 / MK7
Size	53 to 63 cm
Color	White, yellow, red or blue
Ventilation	No
Weight helmet	350 gr
Material helmet	Polyethylene HPDE (High Density Polyethylene)
Inner system	6-point harness
Approval	Safety helmet: EN 397 (-30°C, 440V, MM)

## Safety helmets

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety helmet JSP EVO2, red	1	SG03106
Safety helmet JSP EVO2, white	1	SG03104
Safety helmet JSP EVO2, yellow	1	SG03107
Safety helmet JSP EVO2, blue	1	SG03108

## Safety helmet with integral visor



**Safety helmet with integral visor**  
For comfort, performance and style

For optimal protection of the head, a safety helmet should be adjusted to the size of the head of the user. The usefulness of the helmet duration is determined by , among others , cold, heat, chemicals, sunlight and incorrect use.

### Features

#### Attachments

Universal slots enable firm fitting of Surefit Contour™ ear defenders and a range of Surefit™ safety visors for complete above the head protection, meaning all your protection is to hand and easy to deploy.

#### Comfort

Extremely comfortable terylene webbing moulds to the individual shape of the wearer's head. A rain channel directs rain away from wearer's face.

#### Short peak

Reduced peak available for better vision whilst working at heights.

#### Adjustment

Easyjust® slip ratchet.

#### Electrical Insulation

The Mk7 helmet is now available with the EN 50365 Class 0 10KV standard. This standard is applicable to electrically insulated helmets used for working live or close to live parts on installations not exceeding 1000Vac or 1500Vdc.

#### Retractspec™

The helmet with integral visor ensures that eye protection is on hand when needed and

never lost, whilst removing the need for additional eye protection. Protects to EN166.1.F.

#### Electrical insulation

Meets the EN50365 Class 0 10KV standard. This standard is applicable to electrically insulated helmets used for working live or close to live parts on installations not exceeding 1000Vac or 1500Vdc.

#### Optional: Branding

Extra large area for logos on the front, sides, and rear.

#### Instruction of use

- fit helmet on head and fasten strap to ensure fit
- for adequate protection this helmet must be worn with peak facing forward
- ensure the helmet is adjusted to the size of the user's head
- after use the helmet may be cleaned with the use of soap and warm water and dried with soft cloth
- not suitable for use over other eyewear

#### Limitations of use

Any helmet subjected to severe impact should be replaced immediately. Please check instruction of use from the manufacturer.

### TECHNICAL SPECIFICATIONS

Type	Safety helmet JSP MK7
Size	53 to 64 cm
Color	Yellow or white
Ventilation	Yes
Weight helmet	390 gr
Material helmet	Polyethylene HPDE (High Density Polyethylene)
Inner system	6-point harness
Approvals	Safety helmet: EN 397 Safety visor: EN166.1.F



# Safety helmet with integral visor

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety helmet JSP MK7, white, including safety class	1	SG03105
Safety helmet JSP MK7, yellow, including safety class	1	07105020

## Safety helmet with integrated goggle

Safety helmet made of polyamide, complete with PC safety glasses.



### Features

Initial quality polyamide shaped helmet with built-in folding safety glasses. The helmet is equipped with comfortable 4-point interior and two knobs for size adjustment.

### Optional

Your logo can be placed in the helmet.

### Safety helmet

With integrated eye protection

### TECHNICAL SPECIFICATIONS

Type	Safety helmet Iris 2
Size	53 to 63 cm
Color	White or Yellow
Weight helmet	410 gr
Material helmet	polyamide
Weight goggle	65 gr
Material goggle	transparent polycarbonate
Inner system	4-point with woven straps, with (2x) knob
Approvals	safety helmet: EN 397 (-20°C, 440V, MM) safety goggle: 2-1, 2 (OBX), 2 BKN 9-EN 166 389-B

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety helmet with integrated goggle, blue	1	SG03100
Safety helmet with integrated goggle, transparent	1	SG03101
Safety helmet with integrated goggle, orange	1	SG03102
Safety helmet with integrated goggle, yellow	1	SG03103

# Safety Shoe

Low work shoe with loop and hook fastener closure and a steel toe.



## Features

- hook and loop fastener closure
- Buk oiled leather
- ergo-Tex lining
- clima-stream<sup>®</sup> system insole
- PPS cushioning system
- MPH XN sole technology
- EN 345 S2

## Meets the requirements S2

- closed heel
- antistatic
- energy absorption capacity in the heel area
- waterproof and water absorbent

## Safety Shoe

Hook and loop fastener

## TECHNICAL SPECIFICATIONS

Type	Atlas Ergotex 400 S2 hook and loop fastener
Color	Black / blue
Weight	1.2 kg
Sizes	40 - 48

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Shoes S2, size 40	1	07107039
Safety Shoes S2, size 41	1	07107040
Safety Shoes S2, size 42	1	07107041
Safety Shoes S2, size 43	1	07107042
Safety Shoes S2, size 44	1	07107043
Safety Shoes S2, size 45	1	07107044
Safety Shoes S2, size 46	1	07107045
Safety Shoes S2, size 47	1	07107046
Safety Shoes S2 hook and loop fastener, size 48	1	07107047

## Safety Shoes Loafer

The safety shoe has a sporty appearance and ensures maximum security and a perfect fit.



### Features

- a lightweight, anti-static PU sole which is heat resistant to 110 C
- resistant to oils and acids
- equipped with the Tunnel System which provides optimal cushioning
- full grain leather / nappa
- nappa / leather lining

- dual density PU sole
- EN 345 S2

### Meets the requirements S2

- closed heel
- anti-static
- energy absorption capacity in the heel area
- waterproof and water absorbent

### Safety Shoes S2 Loafer

#### TECHNICAL SPECIFICATIONS

Type	Bata Rotterdam / Concho Loafer S2
Color	Black
Sizes	40 - 48

#### ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Shoes S2 Loafer, size 40	1	07107048
Safety Shoes S2 Loafer, size 41	1	07107049
Safety Shoes S2 Loafer, size 42	1	07107050
Safety Shoes S2 Loafer, size 43	1	07107051
Safety Shoes S2 Loafer, size 44	1	07107052
Safety Shoes S2 Loafer, size 45	1	07107053
Safety Shoes S2 Loafer, size 46	1	07107054
Safety Shoes S2 Loafer, size 47	1	07107055
Safety Shoes S2 Loafer, size 48	1	07107056

## Safety Boots - Chemical resistant

Safety boots protect the feet during work in a hazardous environment.



### Features

- with steel toe cap and steel midsole
- sole is oil-, grease-, lye and acid resistant
- anti-static and anti-slip sole
- remains flexible at low temperatures (down to -20 ° C)
- extra ankle protection
- reflective dot on the heel

### Safety Boots

Chemical resistant

### TECHNICAL SPECIFICATIONS

Type	Dunlop S5
Color	Black
Sizes	41 - 46

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Boots S5, size 40	1	SG03510
Safety Boots S5, size 41	1	SG03511
Safety Boots S5, size 42	1	SG03512
Safety Boots S5, size 43	1	SG03513
Safety Boots S5, size 44	1	SG03514
Safety Boots S5, size 45	1	SG03515
Safety Boots S5, size 46	1	SG03516
Safety Boots S5, size 48	1	SG03518
Safety Boots S5, size 50	1	SG03519

## Safety Boots - Cherokee - S3

We operate in a world where getting the best value for money is in the DNA of the companies we deal with. There is a need for 'basic' footwear, stripped from all things that could be regarded as 'luxury', but with all major safety and comfort properties 'on board'.



### Features

- ankle support
- slip resistance
- S3
- non-metallic
- lightweight

- fine leather quality
- extra rigid leather parts
- easy access zip
- anti-perforation textile Enigma T-system
- oil hydrocarbons resistant
- anti-static

### Safety Boots Cherokee

Slip resistance, S3

### TECHNICAL SPECIFICATIONS

Manufacturer / Type	Roots / Cherokee
Color	Black
Sizes	38 - 50
Boot height	22.8 cm (9")
Toecap	Multi-layer fiber glass 200J
Midsole	Texon anti-perforation midsole S3
Sole	Inner sole soft PU / outsole hard PU
Heat resistance sole	Up to 170°C
Slip resistant modulus	0.41
Scuff cap	Direct injected PU
Weight (EU43 / UK9)	1.72 kgs
Kennedy grating (dry/wet)	0.78 / 0.43
Scaffolding board (dry/wet)	0.95 / 0.71
Approvals	EN ISO 20345:2011 S3, EN 12568:2010, EN ISO 20344/345 CSA-Z195-09, ASTM F2413-11

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Boot, size 38	1	07107138
Safety Boot, size 40	1	07107140
Safety Boot, size 41	1	07107141
Safety Boot, size 42	1	07107142
Safety Boot, size 43	1	07107143
Safety Boot, size 44	1	07107144
Safety Boot, size 45	1	07107145
Safety Boot, size 46	1	07107146
Safety Boot, size 47	1	07107147
Safety Boot, size 48	1	07107148
Safety Boot, size 50	1	07107149

## Dräger Protective Eyewear x-pect 8000

State-of-the-art protective spectacles and goggles - this is the Dräger X-pect 8000 protective eyewear collection: combining the best possible wearer comfort, high safety and an attractive design, providing special protection for the most important sensory organ: your eyes.



**Dräger X-pect 8000 protective eyewear**  
Avoiding irreparable damage

### Avoiding irreparable damage

Our eyes are particularly prone to injury when working with liquids or in environments containing dust particles or fragments. Chemical burns, lacerations or invasive foreign bodies can often cause long term damage, as e.g. impaired vision or even the complete loss of vision in one or both eyes. In a matter of seconds, irreparable damage may occur, thus dramatically changing the rest of our lives.

A simple solution is available. Often all that is needed is to wear well-fitting, stable protective glasses or goggles which offer effective eye protection against injury. However, protective eyewear is only effective if used properly by the wearer.

### Dräger X-pect 8000

In developing our Dräger X-pect 8000 protective eyewear collection, we focused on providing the best possible wearer comfort and high safety, combined with an attractive, modern design. Wearer comfort Dräger's X-pect 8000 protective eyewear is characterised by superior quality and ergonomically designed lightweight materials. Many models can be individually adapted to fit any face shape by adjusting the side arms. Part of the ergonomic design is the unrestricted field of vision. Excellent wearer comfort is also ensured in combination with other personal protective equipment such as ear protection or respiratory protection.

### Safety

The Dräger X-pect 8000 collection is certified in accordance with EN 166:2001 and is CE compliant. This means that all spectacles meet high quality requirements. Additionally many models from the Dräger X-pect 8000 series offer the highest UV protection available and the best optical class for continuous work. Most models feature an anti-scratch and anti-fog coating to ensure clear vision in the most arduous of situations.

### Design

What could be better? Effective protection combined with an attractive stylish or sporty design. Dräger's X-pect 8000 protective eyewear is characterised by a modern and sporty look, making them extremely popular among users in industry, trade or for private use.

### A suitable model for each type of application

Whether in the laboratory, during grinding, machining or painting operations, or when working with gases, vapors or smoke – Dräger's X-pect 8000 protective eyewear collection provides effective protection for your eyes. A suitable model is available for all applications for professional or private use:

- cover spectacles (designed to be worn over corrective glasses)
- spectacles
- goggles

## TECHNICAL SPECIFICATIONS

Model	8110 / 8120 / 8510
Lens material	PC / PC / PC
Frame material	PC / Nylon / PVC
UV	yes / yes / yes
Lens color	clear / clear / clear
Anti-scratch	- / yes /yes
Anti-fog	- / - /yes
Weight (g)	45 / 43 / 101

# Dräger Protective Eyewear x-pect 8000

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-pect 8110, Cover spectacles	1	R58247
Dräger X-pect 8120, Cover spectacles	1	R58248
Dräger X-pect 8510, Goggles	1	R58373



# Dräger Protective Eyewear x-pect 8320

The new generation: spectacle Dräger X-pect 8320. This safety goggle stands for fantastic design, ultra light and highest comfort for intensive use.



**Dräger x-pect 8320**  
Protective eyewear

### Robust lightweight

The material of the X-pect 8320 goggles is very robust due to the applied polycarbonate material, but is also the lightest weight in its class. The break-resistant polycarbonate provides long life and high comfort when intens use.

### Soft nose piece

Featuring a soft nose piece provides the X-pect 8320 goggles high wearing comfort - even in extreme conditions such as heat and cold.

### Scratch and anti-fog

The X-pect 8320 goggles have a special scratch resistant coating and anti-fog coating to ensure clear vision in heavy use or harsh environments.

### Flexible eyeglass legs

The X-pect 8320 spectacles has flexible legs for minimal pressure against the head and a high wearing comfort.

### Large field of view

The panorama window of the X-pect 8320 goggles offers a wide field of view - comfortable and easy to use.

### Sporty appearance

The "wrap-around" design of the Dräger X-pect 8320 and the optimal curve of 9.5 provide effective eye protection and high comfort. Also, the goggles have a distinctive modern and sporty look, which makes it very popular among users, both in industry and private.

### UV resistant

The X-pect 8320 offers the highest UV protection available and the best optical class (class 1) for prolonged use. Also, the safety glasses according to EN 166:2001 and CE standards. This means that all glasses meet the highest quality standards.

## TECHNICAL SPECIFICATIONS

Type	Dräger x-pect 8320
Lens material	PC, polycarbonate
Frame material	PC, polycarbonate
UV	yes
Lens color	clear
Anti-scratch	yes
Anti-fog	yes
Weight	21 gr

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger x-pect 8320 protective eyewear	1	R58268

# Neox Handgloves

Medium-duty chemical protection.



## Recommended Usage

- chemical plants
- agriculture

- petrol refining
- cleaning and maintenance
- soft, comfortable and absorbent

## Neox hand gloves

Great protection

## TECHNICAL SPECIFICATIONS

Dimensions	Length: 355 mm Thickness: 0.75 mm
Size	10
Color	Black
Approvals	Chemical resistant according to: EN388/EN374 & EN511

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Neox <sup>®</sup> Handgloves, 36 cm	1	SG03182
Neox <sup>®</sup> Handgloves, 30.5 cm	1	07103011

# Frotté Handgloves

Medium heat protective handgloves.

## Recommended Usage

- chemical plants
- agriculture

- petrol refining
- cleaning and maintenance
- soft, comfortable and absorbent



## Frotté handgloves

Great protection

## TECHNICAL SPECIFICATIONS

Size	10
Fabric	Frotté
Manchet style	Knitted manchet
Color	Natural

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Frotté Handgloves	1	SG06152

# Rain Trousers

Lightweight and comfortable, flame retardant rain trousers. The rain jacket needs to be ordered separately.



## Features

- reflection bands
- high frequency welded seams

- adjustable snaps
- lightweight and comfortable

## Rain trousers

Flame retardant

## TECHNICAL SPECIFICATIONS

Type	Microflex flame retardant trousers
Color	Blue
Sizes	S - XXL
Material	50% polyamide / 50% polyurethane - 170 gr/m <sup>2</sup>
Approvals	EN340, EN 343, EN 1149-5, EN ISO14116

## ORDER INFORMATION

Description	Unit Sales	Article nr
Rain trousers, size S	1	07115060
Rain trousers, size M	1	07115061
Rain trousers, size L	1	07115062
Rain trousers, size XL	1	07115063
Rain trousers, size XXL	1	07115064

# Rain Jacket

Lightweight and comfortable, flame retardant rain jacket.



## Features

- reflection bands
- high frequency welded seams
- adjustable snaps
- lightweight and comfortable
- zipper under storm flap with press studs
- adjustable press stud on sleeves
- two patch pockets
- hood with drawstring, hidden in collar
- including logo

## Rain jacket

Flame retardant

## TECHNICAL SPECIFICATIONS

Type	Microflex flame retardant jacket
Color	Blue
Sizes	S - XXXL
Material	50% polyamide / 50% polyurethane - 170 gr/m2
Approvals	EN340, EN 343, EN 1149-5, EN ISO14116

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Rain jacket, size S	1	07115066
Rain jacket, size M	1	07115067
Rain jacket, size L	1	07115068
Rain jacket, size XL	1	07115069
Rain jacket, size XXL	1	07115070
Rain jacket, size XXXL	1	07115071

## Safety harness

The safety harnesses offer all the necessary elements for a complete fall protection system and allows the user to choose components based on personal preference and job constraints. In addition to offering economical compliance, these safety harnesses are built with quality and reliability, fall protection gear you can trust.



### Features

- large back plate: for easy and efficient donning
- fall indicator: clear indicator which shows that the harness should be retired
- contrasting leg and shoulder straps: for easy and rapid donning

- covered identification labels: protects labels during the life of the harness

### Applications

- (maintenance) activities on board of a vessel or a rig.

### Safety harness

D-rings at front and back

### TECHNICAL SPECIFICATIONS

Brand	PROTECTA
Type	AB17511UNI / AB17711UNI
Size	Universal
D-ring locations	Back / Back & Front
Body belt	No
Leg strap buckle type	Pass through buckle
iSafe equipped	No
Physical weight	0.95 kg (2.1 lbs) / 1.05 kg (2.3 lbs)
Approvals	CE, EN361

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety harness, d-ring on back, universal size	1	SG04251
Safety harness, d-ring on back & front, universal size	1	SG04251

## Shock absorbing lanyard

A shock absorbing lanyard in combination with a safety harness offers all the necessary elements for a complete fall protection system. It allows the user to choose components based on personal preference and job constraints. In addition to offering economical compliance, these safety harnesses are built with quality and reliability, fall protection gear you can trust.



### Shock absorbing lanyard

With scaffold hook and twist-lock karabiner

#### Features

- protected identification label
- blue webbing
- scaffold hook (B)
- protective sleeve
- shock absorbing element
- automatic twist-lock karabiner (A)

#### Shock absorbing element

- absorbing strap
- engaging force > 2kN
- impact force reduction < 6 kN

#### Webbing

- polyester
- width: 45 mm
- strength > 2500 daN

#### Karabiner

- opening: (A): 17 mm / (B): 50 mm
- (A): high strength steel
- (B): high strength forged steel
- strength: (A) > 2500 daN / (B) > 2300 daN

#### Applications

(maintenance) activities on board of a vessel or a rig.

### TECHNICAL SPECIFICATIONS

Brand	PROTECTA
System breaking strength	> 15 kN
Net weight	1.15 kg
Lenght	1.75 m
Approvals	CE, EN355:2002

### ORDER INFORMATION

Description	Unit Sales	Articlennr
Shock absorbing lanyard, 1.75 m with scaffold hook and twist-lock karabiner	1	SG04232
Safety harness, d-ring on back & front, universal size	1	SG04252
Safety line, 20 meters, Ø 10.5 mm, weight 1.6 kg, including swivel hook	1	SG04231

## Rescue Tripod, aluminium

Aluminium rescue tripod with adjustable legs. This aluminium rescue tripod is designed for rapid set up to be used with a Bracket Assembly on the rescue tripod leg and a Pulley Wheel complete with karabiner, so an Fall Arrest Block can be used.



### Rescue Tripod

Designed for rapid set up

#### Aluminium Rescue Tripod

Aluminium rescue tripod with adjustable legs to EN 795 Class B. This aluminium rescue tripod is designed for rapid set up to be used with a Bracket Assembly on the rescue tripod leg and a Pulley Wheel complete with karabiner, so an IKAR HRA Device can be used.

Maximum user rating 2 persons or 1 person and a load winch to 250 Kg SWL. The rescue tripod is adjustable in height from 1.44 to 2.42 m. The set up diameter of the legs ranges from 0.99 to 1.55 m. The weight of the rescue tripod is 19 kgs.

#### Fall Arrest Block

Fall Arrest Block HRA24 with an integral recovery mechanism, 15.0 m steel rope lifeline in an aluminium housing to EN360:2002 and EN1496

This aluminium housed fall arrest block is a sturdy, low maintenance device fitted with a steel rope lifeline, terminated with a steel double action hook. The attachment anchorage point on the fall arrest block is an open steel handle, suitable for connection via a Standard Karabiner type connector, or a Standard Karabiner type connector with an Anchorage Sling, or a Large Karabiner.

In addition to connecting the fall arrest block with recovery mechanism via the steel handle, it can also be used in conjunction with a DB-A2 aluminium tripod, to protect the user when ascending and descending a vertical shaft i.e. entry into a sewer system.

This fall arrest block also has a built in recovery mechanism, which is engaged by pulling a pin on the side of the block and engaging a winding handle. This then allows

the device to be used to lift or lower a casualty post fall, or if they have become incapacitated in a confined space.

The lifeline in this fall arrest block has been tested in a simulated fall over an edge and passed the German draft amendment EN360. However, not all "edges" will react in the same way as the tested steel edge, so when using this fall arrest block, every effort must be made to ensure that in the event of an arrested fall, the lifeline does not pass over an edge.

The dimensions of this block are: 630 x 275 x 110 mm. The weight of the block is: 16.0 kgs.

#### 41-54 Mounting Bracket

Mounting bracket for attaching a load winch 41-Z7 onto an aluminium tripod. This mounting bracket is bolted onto one leg of the tripod and then allows the Load Winch to be attached to the tripod. The weight of the bracket is 1.0 kgs.

#### Pully Wheel

Swing cheek pulley and karabiner for attaching a HRA lifeline. This swing cheek pulley is clipped onto the eye bolt at the top of the tripod with the HRA lifeline passing through it. The pulley is made from stainless steel and comes complete with screw gate karabiner. The weight of the bracket is 1.1 kgs.

#### Standard Karabiner

Standard karabiner hook with screw gate for attaching fall protection equipment to a suitable anchorage point to EN362. This standard karabiner hook is made from heat treated steel and has a gate opening size of 19 mm. The weight of the karabiner hook is 0.16 kgs.

### ORDER INFORMATION

Description	Unit Sales	Article n°
Rescue Tripod, aluminium, basic	1	SG04201
Stopmax/Ikar Rescue block: length 24 meters excl holder/adapter	1	SG04205
Stopmax/Ikar Rescue block: length 12 meters excl holder/adapter	1	SG04204



# Emergency Tank Shower

Emergency Tank Shower incorporating a 1,200 litre tank with galvanised mild steel rectangular hollow section frame and White GRP outer casing.



**General information**

An integral immersion heater, controlled by a dual safety thermostat, maintains the water in the insulated tank at a constant temperature to deliver a guaranteed flow of warm water for up to 15 minutes even when the mains supply has been disrupted.

**Usage of the shower**

The shower is activated when the casualty stands on the optional Foot Panel or pushes the panic bar. A version is available with the Eye/Facewash Fountain mounted internally. Alternatively the Eye/Facewash can be omitted.

**Available color**

Also available with GRP casing in Green. Also available with stainless steel frame.

**Types**

Export Model EXP-MH-14K/1200. Insulated models available, without heating STD-J-14K/1200, EXP-J-14K/1200.

**NOTE**

An Earthquake proof version of this model is available which has been designed to conform to the California Building Code 1998 Chapter 16, Division 1.

**Emergency Tank Shower**  
1,200 litre tank

**TECHNICAL SPECIFICATIONS**

Manufacturer / Model	STD-MH-14K/1200
Dimensions	3666 (H) x 1310 (W) x 1310 (D)
Tank size	1,200 litre
Weight	300 kgs, approx. dry weight
Water inlet	2" flange
Water pressure	2 bar G
Heating	optional to specs
Cooling	optional to specs

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Emergency Tank Shower	1	On request

## Emergency Safety Shower with Eye/Facewash Fountain - indoor

An unheated emergency safety showers and eye/facewash modes designed specifically for export. With low level water inlet.



### Features

The main shower valve is situated directly above the water inlet and is complete with

bleed pipe to drain water from the standpipe to reduce overheating by solar radiation. Available in galvanised or stainless Steel.

### Emergency safety shower with eye/facewash fountain

Indoor usage - unheated

### TECHNICAL SPECIFICATIONS

Manufacturer / Model	Hughes / EXP-18G/45G
Inlet connection size & type	1 1/4 inch BSP female
Piping and valve materials	Galvanised carbon steel piping, brass valves
Shower operation	Pull rod.
Eyebath operation	Lift lid or press optional foot treadle
Operating pressure	2 bar G minimum
Flow at operating pressure	Shower: 75 liters per minute Eyebath: 20 liters per minute
Dimensions	750 (d) x 340 (w) x 2300 (h) mm
Weight	18 kgs

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety shower with eyebath - indoor	1	SG04622

# Emergency Safety Shower with Eye/Facewash Fountain - outdoor

Emergency Safety Shower with Eye/Facewash Fountain, trace tape heated and pre-insulated. Available in Galvanised or Stainless Steel. Available with extra heating.



## Features

This shower is ideal for export and intended for use throughout industry where there is a possibility of water inside the shower freezing or overheating.

The shower is jacketed and pre-insulated and this models is suitable for usage in zone 1 & 2 as well in non-flameproof areas.

## Emergency safety shower with eye/facewash fountain

Outdoor usage - heated

## TECHNICAL SPECIFICATIONS

Manufacturer / Model	Hughes / EXP-AH-5G/45G
Inlet connection size & type	1 1/4 inch BSP male
Piping and valve materials	Galvanised mild steel pipework, brass valves
Shower operation	Pull rod.
Eyebath operation	Lift lid or press optional foot treadle
Operating pressure	2 bar G minimum
Flow at operating pressure	Shower: 75 liters per minute Eyebath: 20 liters per minute
Dimensions	850 (d) x 340 (w) x 2310 (h) mm
Weight	34 kgs
Heating type	Chemelex trace tape
Heater load	57 watts
Optional electrical equipment suitable for use in areas classified as	non-flameproof or zone 1 & 2, gas groups IIA & IIB, temp class T3
Electric supply	240 or 110V, single phase, 50Hz

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety shower with eyebath - outdoor	1	SG04621

# Barikos Eye Wash Bottle

The Barikos eye wash bottle is a maintenance-free wash bottle. In sealed state the eye wash fluid can be kept ready for use two years.



## Properties

Eyewash bottle with 620 ml of water. The water is sterilized by gamma radiation. The contents of the bottle can be stored for two years, as long as the bottle is unopened. The expiry date is mentioned on the seal. After use the bottle is to be replaced by a new one.

The Barikos eye wash bottle is an easy to use squeeze bottle, specially designed for this

purpose. The spray is soft, broad and effective. The used and polluted water exits through special openings in the bottle design.

## Optional

There are special wall mounts available to have a clear and clean storage of the eye rinse bottles.

## Barikos eye wash bottle

Low maintenance eye wash bottle

## TECHNICAL SPECIFICATIONS

Dimensions	100 x 250 x 50 mm
Material	PVC wall container with transparent cover.
Content	620 ml water
Approval	DIN12930

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Barikos eye wash bottle 620 ml	1	SG04604
Barikos holder for 1 bottle	1	SG04602
Barikos holder for 2 bottles	1	SG04603
Barikos wire wall bracket	1	SG04601

# Portable eyewash, face and body shower unit

Portable emergency Eye, Face and Body Shower unit.



**Features**

- Incorporating an Optiflex Hand Shower with reinforced hose connected to a 14 litre stainless steel cylinder When pressurised to 8 bar via a schraeder tyre valve this unit will deliver a copious quantity of water for two minutes

- Fitted with pressure gauge and dual action safety valve to prevent over pressurisation and to allow user to vent the cylinder for cleaning and maintenance
- 1.5 metre long flexible hose

**Portable emergency unit**  
Eyewash, face and body shower

**TECHNICAL SPECIFICATIONS**

Manufacturer	Hughes Safety Showers
Model No.	STD-38G
Water Capacity	14 liter
Flow rate	7 l/minute
Duration of discharge	2 minutes
Tank materials	Stainless Steel
Stored pressure or cartridge type	Stored pressure
Storage pressure	8 bar
Cylinder test pressure	13.8 bar
Working Pressure (at discharge)	6.9 bar at 15 degrees C
Eye diffuser c/w cap & chain	Confirmed
Dimensions	725 x 220 mm (h x w)

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Portable eyewash, face and body shower unit	1	04130013

## Tobin eyewash bottles

An eyewash should be quick, simple and safe to use. The unique shape of Tobin's eyewash bottle insures that even a temporarily blinded and confused person can identify it as a safe eyewash.



### Tobin eyewash bottles

For a quick, simple and safe use

#### Applications

Suitable when space is a problem or where several eyewash stations are required in the same area. Supplied with bottles, wall screws etc.

#### Features

- provides 6 minutes washing time
- the bottle is made from blow-moulded plastic, filled with 1 liter of 0.9% saline, heat sealed, and then sterilised.
- it has a 3 year shelf life and remains sealed and sterile until use.
- the bottle hangs from a wall mounted rack by its cap. To open, simply break off the cap. An unopened bottle can be removed or replaced in the stand at will. An opened bottle cannot be replaced in the stand.
- the eye is washed by a soft flow consisting of six tiny streams. The gentle flow prevents chemicals or foreign bodies being driven further into damaged soft tissue

- the fact that the bottle is single use is a very important safety feature. Once the bottle has been opened, the liquid is no longer sterile. The round ended bottle is designed to prevent people saving unused liquid or refilling the bottle with other liquid. When empty the bottle has a hole at both ends, making it unsuitable for further use.
- tobins eyewash bottle has a round base and cannot stand alone. This is a particularly important safety feature that removes the temptation to take bottles from the stand and place them close to bottles with other contents. Mix-ups should never occur.
- it's important that everyone knows where the bottles are when an accident occurs.

#### Optional

Also available with a wall unit and two bottles of 1 liter each.

### TECHNICAL SPECIFICATIONS

Contents	1 liter sterile saline solution of 0.9%
Dimensions	390 x 200 x 100 mm
Usage	Disposable, single use
Storage temperature	between 2 °C and 35°C
Shelf life	An unopened bottle has a shelf life of 3 years
Expiry date	Each bottle shows the recommended expiry date

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Tobin: two eye wash bottles, each 1 liter	1	SG04605
Tobin: wall display for cabinet	1	04135013
Tobin: wall display and two eye wash bottles of 1 liter each	1	SG04606

# Disinfection of drinkwater in tanks and piping

The safety of drinking water cannot always be taken for granted. Hadex® is a safe, effective and easily applied product that keeps the drinking water in good condition. Drinking water treated with Hadex® remains fit for consumption.



**Disinfection of drinkwater**  
Especially suitable for tanks and piping

**Application**

It is especially intended for disinfecting drinking water in tanks and piping.

**Features**

- Hadex® is a safe, effective and easily applied product:
- food grade
- it is easily stored
- it has a very long shelf life: at least eighteen months under normal conditions (t =25 °C) and at least three years if stored cool (t = < 6 °C)
- it facilitates swift and accurate dosing

- Hadex® starts disinfecting immediately

- available in 1, 2.5, 10 and 25 litre cannisters

**Dosing**

Hadex® is ready for immediate use as delivered. Because it is a very pure, stable and safe product, it facilitates swift and accurate dosing. As it is a liquid product it mixes quickly and easily with water. Hadex® can be dosed manually and automatically by use of the specially designed Hadex® Dosing Unit. Next to continuous dosing, Hadex® can also be used for shock treatment, cleaning all drinking water piping.

**TECHNICAL SPECIFICATIONS**

Manufacturer / Model	Hadex
Available weight	1, 2.5, 10 and 25 liters cannisters
Approvals	Dutch Ministry of Health (Ctgb registration No. 9574N) Dutch Directorate General for Shipping and Maritime Affairs - Shipping Inspection, Division NSI (Netherlands) DOT (United Kingdom) Norwegian Institute of Public Health (NIPH) Norwegian Maritime Authority (NMD) Germanischer Lloyd (Gy) NATO

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Disinfection of drinking water, 1 liter	1	SG04671
Disinfection of drinking water, 2.5 liters	1	SG04672

# Freshwater Salinometer SL8005

The salinometer measures and supervises the salinity (salt content) by conductivity measurement in fresh water. The measured value is displayed as ppm and by comparing the measured value to a user defined alarm setpoint value, relay outputs are available to indicate if salinity is above or below the alarm setpoint value.



## Freshwater Salinometer SL8005

Measures and supervises the salinity in water

### Features

- Salinity Monitor for Freshwater
- Measuring range: 0-200 ppm
- High salinity warning
- Display for salinity and alarm level
- 4-20 mA output
- Built-in self-test
- Temperature compensation 0-100 °C
- Wall or panel mounting

### Typical use

In areas where fresh water generation or purification is taking place and level of salinity in the fresh water must be monitored as well as in areas where a set level of salinity is requested in a process. Salinometers are used in: Freshwater Generators, Boilers, Reversed Osmosis Fresh Water Systems (RO) and other systems where salinity has to be supervised.

### Main supply

85 - 265 V AC, 50/60 Hz, 10 VA typ. - 15 VA max. Mains supply must be protected against

overcurrent by an external 250 mA slow-blow fuse.

### Alarm function

User defined alarm setpoint value (0 - 199 ppm) is set using "+" and "-" buttons. When measured value exceeds alarm setpoint, change-over relay contacts A and B are activated. Alarm relay B may be enabled/disabled from the front by pressing a button.

### Test

Full electronics test when power is switched on and during run-time a test-button is available for testing the salinometers. The test-button will disable the electrode and feed an internal 10ppm signal to the salinometer (note that this will be seen as an actual measurement, and alarms will respond to this). Connection to electrode is monitored and error in this reported on the front (malfunction + LED + display = "- - -").

## TECHNICAL SPECIFICATIONS

Mains supply	85-265 V AC, 50-60 Hz, 10 VA typ. - 15 VA max.
Mains current	Mains supply must be protected against overcurrent by an external 250 mA slow-blow fuse
Power consumption	Max. 10.0 W
Range of salinity	0 - 200 ppm, displayed as "000" to "199" and "HI" if value exceeds 200 ppm
Alarm level	User defined alarm setpoint value (0 - 199 ppm)
Cable connections	1-2: Mains power input 3-5: Alarm relay A (change over function NO-C-NC) 6-8: Alarm relay B (change over function NO-C-NC) 11-15: Electrode 16-17: 4-20 mA output
Relay contacts	2 x Change-over relay contacts - capable of handling 4A (85 - 265 V AC or 24 V DC) load. Relays must be protected against overcurrent by an external 4 A slow-blow fuse
Protection	IP65

## ORDER INFORMATION

Description	Unit Sales	Articlenr
Freshwater Salinometer SL8005	1	Op aanvraag



# Heat Detector Testers SOLO 423/424 Series

Using the unique Cross Air Technology, air is heated and blown across the cup ensuring the heat source is directed at the sensor and not the plastic components or casing.



**General**

Available in both 110 / 120 and 220 / 240 volt versions the Solo 423 and 424 are the professionals' choice where cables and leads are acceptable. Unconstrained by energy availability they provide the quickest of test times and are, perhaps, most suitable for the highest temperature detectors.

**Features**

- Suit Fixed temperature, up to 90°C
- Quickest activation times
- Lightweight
- Easy to use
- Universal design suits the widest range detectors
- Fur use at height, angles and low level
- Supplied with 5 mtr cable

**Heat Detector Testers SOLO 423/424 Series**

Professionals' choice

**TECHNICAL SPECIFICATIONS**

Dimensions	115 x 115 x 80 mm
Frequency	50/60 Hz
Weight	1200 grams
Max height	9 meters
Power	~ 70 W

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Heat Detector Tester SOLO 424	1	SG04482

## Smoke Detector Testers SOLO 330

Testing equipment must be proven to be safe for the engineer and the system, it needs to be cost-effective, versatile, portable, approved by all detector manufacturers and in compliance with international codes and standards. The Solo Range meets all of these requirements.



### General

Codes and standards require functional tests to introduce (simulated) smoke through the detector vents and into the sensing chamber. The Solo 330 dispenser is the most popular device for achieving this, benefiting as it does, from a cup big enough for the great majority of detectors but still small enough not to be obstructive and unwieldy.

### Features

- UL Listed
- Spring loaded mechanism for effective, economic aerosol delivery
- Clear Cup for viewing detector led
- Easy to use
- Universal design suits the widest range of detectors
- For use at height, angles and low level
- Lifetime Warranty

### Smoke Detector Testers SOLO 330

Meets all of the requirements

### TECHNICAL SPECIFICATIONS

Dimensions	115 x 115 x 80 mm
Frequency	50/60 Hz
Weight	1200 grams
Max height	9 meters

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Solo: Smoke Detector Tester SOLO 330 test cup	1	SG04483
Solo: A3 smoke detector testgas 350 grm/tin	1	SG04484

## JEM ZR35 Fog machine

The JEM™ ZR35 is a mid-sized fog machine designed to deliver superior and uninterrupted performance in demanding professional applications. Via its powerful 1,500 W heat exchanger, the JEM ZR35 produces a fantastic peak output ideal for mid to large-sized venues.



### JEM ZR35 Fog machine

The most specified fog machine in the world

#### General

The rugged yet weight optimized JEM ZR35 also features variable output control for more subtle effects and is fully up-to-date with digital remote, DMX and RDM. The entire JEM ZR range is compatible with a wide range of JEM Pro fog fluids. As machines designed and built to last, the JEM ZRs will continue to perform with great output and low consumption.

#### Features

- 1,500 W heat exchanger
- 50 ml in 30 seconds peak performance
- 800 m<sup>3</sup>/min fog output
- variable output control for subtle effects
- 8-9 minute warm-up time
- digital remote, DMX and RDM
- compatible with a wide range of JEM Prof fog fluids
- floor standing or truss mounting (bracket included)
- powerCON TRUE1
- 4-liter bottle (also compatible with a 5-liter bottle)

### TECHNICAL SPECIFICATIONS

Dimensions	590 (l) x 395 (w) x 264 (h) mm
Weight, dry	15.5 kgs
Weight, filled	19.1 kgs
Coverage volume	800 m <sup>3</sup> per minute
Fluid consumption	140 ml per minute
Control options	integrated digital remote control, DMX, optional: analog remote control
Control parameters	continuous or timer-controlled output
Fog	variabele output control, 0-100%
Installation	mounting: standing or hanging
AC power	220-240 V nominal, 50/60 Hz
Maximum ambient temperature	40° C
Construction	Housing: Steel & aluminium, color: black
Approvals	EN 60335-1+A15, EN 62233, EU EMC: EN 61000-6-3, EN 61000-6-1

### ORDER INFORMATION

Description	Unit Sales	Articlenr
JEM ZR35 Fog machine	1	AT08-00-0

## Cyalume lightstick

Easy to use safety lightstick.

### General

The 6'0" EASY-LIGHT is a pure European product. Thanks to its elegant design, it is a good alternative to the 6'0" GLOWSTICK. The

"alligator" -hook helps to clip this lightsticks on many supports. Combine the 6'0" EASY-LIGHT with a lanyard and it becomes a glowing pendant.



Cyalume lightstick  
Safety lightstick

### TECHNICAL SPECIFICATIONS

Dimensions	150 x 11 mm
Weight	133 grams
Colour	Green
Approvals	EN 71 1-2-3

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Cyalome stick	1	SG06153

# Cyalume lightstick

## GRP storage cabinet: DMO-01

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Fireman's equipment (5 complete sets incl. SCBA)
- Survival suits (up to 40 pcs depending on size)
- Life jackets (up to 70 pcs depending on type)
- Emergency response team equipment
- Helideck crash equipment (incl. ladder & grab hook)

### Options

- Shelves / bulkhead / clothing bar
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lighting (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-01

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	1800 x 800 x 2030 mm (LxWxH)
Aperture dimensions	1610 x 750 x 1760 mm (LxWxH)
Angle of door opening	90°
Weight	95 kgs
Material	GRP
Color	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-01	1	SG02010
Add. costs DMO-01: FE layout	1	SG02013
Add. costs DMO-01: Shelves / bulkhead	1	SG02012

## GRP storage cabinet: DMO-01

Description	Unit Sales	Articlenr
Add. costs DMO-01: Fire retardent	1	SG02011
GRP FS Cabinet: DMO-01 - Roller Shutter	1	SG02035
Add. Costs DMO-01 (RS): FE layout	1	SG02038
Add. Costs DMO-01 (RS): Shelves / bulkhead	1	SG02037
Add. costs DMO-01 (RS): Fire retardent	1	SG02036

## GRP storage cabinet: DMO-05

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Fireman's equipment (2 complete sets incl. SCBA)
- Fireman's clothing (4 sets)
- Survival suits (up to 20 pcs depending on size)
- Life jackets (up to 35 pcs depending on type)
- Emergency response team equipment

- Helideck crash equipment (incl. ladder & grab hook)

### Options

- Shelves / bulkhead / clothing bar
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lighting (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-05

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	1035 x 800 x 2030 mm (LxWxH)
Aperture dimensions	810 x 750 x 1750 mm (LxWxH)
Angle of door opening	90°
Weight	57,5 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-05	1	SG02025
Add. costs DMO-05: Shelves	1	SG02002
Add. costs DMO-05: Fire retardent	1	SG02026
GRP FS Cabinet: DMO-05 Roller Shutter	1	SG02045
Add. costs DMO-05 (RS): Fire retardent	1	SG02046



## GRP storage cabinet: DMO-07

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Moveable fire extinguisher (50 kgs DP / 45ltr F)

- Ventilation

- Flame retardant version

- Heaters (conventional / ATEX approved)

- Lettering

### Options

### GRP storage cabinet: DMO-07

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	1000 x 1050 x 1580 mm (LxWxH)
Aperture dimensions	780 x 990 x 1410 mm (LxWxH)
Angle of door opening	90°
Weight	55 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-07	1	SG02075
Add. costs DMO-07: Fire retardent	1	SG02076
Add. costs DMO-07: Shelves	1	SG02002

## GRP storage cabinet: DMO-09

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Fire hydrant cabinet (4 hoses / spray nozzles / spanners)
- Survival suits (up to 20 pcs depending on type)
- Life jackets (up to 30 pcs depending on type)
- Fireman's clothing (4 sets folded)
- SCBA storage (2 sets + spare cylinder)
- Chemical protection equipment

- Electrical safety kit
- Fall protection equipment / descent units (donut type)

### Options

- Shelves
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-09

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	825 x 602 x 1277 mm (LxWxH)
Aperture dimensions	610 x 550 x 1010 mm (LxWxH)
Angle of door opening	90°
Weight	30 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-09, single door	1	SG02015
Add. costs DMO-09: Shelves	1	SG02002
Add. costs DMO-09: Fire retardent	1	SG02016

# GRP storage cabinet: DMO-11

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



## Room to store

- Basket stretchers / Scoop stretchers
- First aid kit
- Stretcher blankets
- Safety torches
- Radio's
- Rescue materials

## Options

- Shelves
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lighting (conventional / ATEX approved)
- Lettering

## GRP storage cabinet: DMO-11

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	800 x 600 x 2400 mm (LxWxH)
Aperture dimensions	615 x 545 x 2175 mm (LxWxH)
Angle of door opening	90°
Weight	50 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-11, single door	1	SG02020
Add. costs DMO-11: Shelves	1	SG02002
Add. costs DMO-11: Fire retardent	1	SG02021
GRP FS Cabinet: DMO-11 Roller Shutter	1	SG02040
Add. costs DMO-11(RS): Fire retardent	1	SG02041

## GRP storage cabinet: DMO-12

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Basket stretchers / Scoop stretchers
- First aid kit
- Stretcher blankets
- Safety torches
- Radio's
- Rescue materials

### Options

- Shelves
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lighting (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-12

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	800 x 300 x 2400 mm (LxWxH)
Aperture dimensions	615 x 245 x 2175 mm (LxWxH)
Angle of door opening	90°
Weight	40 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-12, single door	1	SG02050
Add. costs DMO-12: Fire retardent	1	SG02051
GRP FS Cabinet: DMO-12 (RS) Roller Shutter	1	SG02055
Add. Costs DMO-12 (RS): Fire retardant	1	SG02056

## GRP storage cabinet: DMO-21

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Personal grab bag

### Options

- Shelve

- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-21

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	280 x 280 x 170 mm (LxWxH)
Angle of door opening	90°
Weight	1.36 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM Cabinet: DMO-21	1	03120204

## GRP storage cabinet: DMO-33

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Eyewash bottles
- Safety torches
- Escape masks
- Descent units (donut type)

### Options

- Shelve
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-33

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	600 x 300 x 600 mm (LxWxH)
Aperture dimensions	525 x 225 x 260 mm (LxWxH)
Angle of door opening	90°
Weight	11 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM Cabinet: DMO-33 Single Door	1	SG02060
Add. costs DMO-33: Fire retardent	1	SG02061

## GRP storage cabinet: DMO-35

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Fire extinguisher (1 pcs DP/F/CO2)
- Survival suit (1 pcs)
- Life jacket (4 pcs inflatables)
- Escape masks (up to 10 pcs depending on type)

- Emergency Escape Breathing Apparatus

### Options

- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-35

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

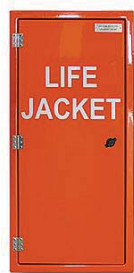
Dimensions	475 x 250 x 980 mm (LxWxH)
Aperture dimensions	335 x 210 x 830 mm (LxWxH)
Angle of door opening	90°
Weight	12,5 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM storage cabinet: DMO-35, single door	1	SG02030
Add. costs DMO-35: Fire retardent	1	SG02031

## GRP storage cabinet: DMO-36

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- SCBA c/w cylinder and spare cylinder
- Emergency Escape Breathing Apparatus (2pcs)
- Survival suits (up to 2 pcs depending on type)
- Life jackets (up to 4 pcs depending on type)
- Chemical protection equipment

- Fall protection equipment / descent units (donut type)

### Options

- Shelf
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-36

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	475 x 350 x 980 mm (LxBxH)
Aperture dimensions	475 x 310 x 830 mm (LxWxH)
Angle of door opening	90°
Weight	15 kgs
Material	GRP
Color	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM Cabinet: DMO-36 Single Door Size: 980 x 475 x 350 mm (h x w x d)	1	SG02070
Add. Costs DMO-36: Fire retardant	1	SG02071



## GRP storage cabinet: DMO-37

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Fire extinguisher (1 pcs DP/F/CO2)
- Survival suit (1 pcs)
- Life jacket (4 pcs inflatables)
- Escape masks (up to 10 pcs depending on type)

- Emergency Escape Breathing Apparatus

### Options

- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-37

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	380 x 278 x 810 mm (LxWxH)
Aperture dimensions	230 x 210 x 650 mm (LxWxH)
Angle of door opening	90°
Weight	10 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM storage cabinet: DMO-37, single door	1	SG02105
Add. costs DMO-37: Fire retardent	1	SG02106

## GRP storage cabinet: DMO-55

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IPX6 as certified by TÜV. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Helideck crash equipment (excl. ladder/ rescue hook)
- Fall protection equipment / descent units (donut type)

### Options

- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

### GRP storage cabinet: DMO-55

IPX6 rated and TÜV certified

### TECHNICAL SPECIFICATIONS

Dimensions	1024 x 500 x 600 mm (LxWxH)
Aperture dimensions	910 x 359 x 560 mm (LxWxH)
Angle of door opening	90°
Weight	20 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	CE / TÜV

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-55 Hinged Lid	1	SG02110
Add. Costs DMO-55: Fire retardant	1	SG02111

## GRP storage cabinet: DMO-130

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- Grab bags
- Safety torches
- Filter masks

- Escape masks

### Optional

- Lettering

### GRP storage cabinet: DMO-130

To store e.g. grab bags, safety torches

### TECHNICAL SPECIFICATIONS

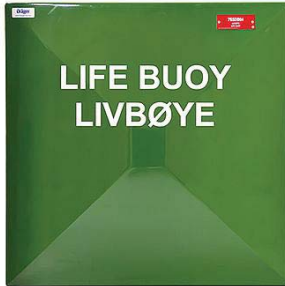
Dimensions	136 x 280 x 280 mm (DxWxH)
Aperture dimensions	120 x 200 x 200 mm (DxWxH)
Angle of door opening	100°
Weight	3 kgs
Material	GRP
Color	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IP55
Door catch	Stainless steel
Door handle	Protex fastener
Hinges	SS 316
Seal	Neoprene
Reinforcement	Core material
Lettering	White
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-130	1	SG02080
Add. costs DMO-130, fire retardant	1	SG02081

## GRP storage cabinet: DMO-131

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- 2.5 kgs or 4.5 kgs lifebuoy
- Throwing line
- Safety light

### Optional

- Lettering

### GRP storage cabinet: DMO-131

To store lifebuoy

### TECHNICAL SPECIFICATIONS

Dimensions	125 x 900 x 900 mm (DxWxH)
Aperture dimensions	125 x 900 x 900 mm (DxWxH)
Angle of door opening	100°
Weight	27,5 kgs
Material	GRP
Color	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IP55
Door catch	Stainless steel
Door handle	SS 316
Hinges	SS 316
Seal	Neoprene
Reinforcement	Core material
Lettering	White
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-131	1	SG02085
Add. costs DMO-131, fire retardant	1	SG02086

## GRP storage cabinet: DMO-132

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- PPE equipment
- Breathing apparatus
- Fire hoses and nozzles

### Optional

- Lettering
- Straps
- Shelve
- Ventilator

### GRP storage cabinet: DMO-132

To store PPE, BA, fire hoses and nozzles

### TECHNICAL SPECIFICATIONS

Dimensions	285 x 485 x 810 mm (DxWxH)
Aperture dimensions	275 x 410 x 740 mm (DxWxH)
Angle of door opening	100°
Weight	12,5 kgs
Material	GRP
Color	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IP55
Door catch	Stainless steel
Door handle	Protex fastener
Hinges	SS 316
Seal	Neoprene
Reinforcement	Core material
Lettering	White
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-132	1	SG02090
Add. costs DMO-132, fire retardant	1	SG02091

## GRP storage cabinet: DMO-133

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- PPE equipment
- Electrical rescue kit
- BA set
- Fire hoses and nozzles

### Optional

- Lettering
- Shelve
- Ventilator

### GRP storage cabinet: DMO-133

To store PPE or BA sets

### TECHNICAL SPECIFICATIONS

Dimensions	350 x 675 x 1075 mm (DxWxH)
Aperture dimensions	Not available
Angle of door opening	100°
Weight	20 kgs
Material	GRP
Color	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IP55
Door catch	SS316
Door handle	SS 316
Hinges	SS 316
Seal	Neoprene
Reinforcement	Core material
Lettering	White
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-133	1	SG02095
Add. costs DMO-133, fire retardant	1	SG02096

## GRP storage cabinet: DMO-134

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.



### Room to store

- PPE equipment
- Escape masks
- Life jacket

- Survival suit

### Optional

- Lettering

### GRP storage cabinet: DMO-134

To store PPE equipment, escape masks, life jacket or survival suit

### TECHNICAL SPECIFICATIONS

Dimensions	245 x 385 x 535 mm (DxWxH)
Aperture dimensions	235 x 370 x 515 mm (DxWxH)
Angle of door opening	100°
Weight	7,5 kgs
Material	GRP
Color	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IP55
Door catch	SS316
Door handle	SS 316
Hinges	SS 316
Seal	Neoprene
Reinforcement	Core material
Lettering	White
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-134	1	SG02100
Add. costs DMO-134, fire retardant	1	SG02101

## T-card cabinet: DMO-135

The T-card cabinet is being used for evacuation purposes on board of a platform.



### Features

- Polyester laminate construction, 3 mm thick
- High gloss outside finish (RAL6002)
- Inside fibre structure finish (RAL6002)
- 2 Stainless steel hinges
- 2 Stainless steel fasteners
- Perspex window

- 148 Card slots, including t-cards

### Optional

- Fire retardancy
- An other (RAL) colour
- EPDM seal

### T-card Cabinet

148 slots including t-cards

### TECHNICAL SPECIFICATIONS

Dimensions	973 x 453 x 120 mm (HxWxD)
Aperture dimensions	575 x 410 x 115 mm (HxWxD)
Angle of door opening	100°
Weight	10 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
Door handle	Protex fastener
Hinges	SS 316
Reinforcement	Core material
Lettering	White
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
T-card Cabinet: DMO-135	1	SG02003



## Firehose Safety Cabinet, polyester: DMO-136

Safety cabinet to store fire hose, branch pipe and Storz coupling spanners. If quality, finish and design are important, the best choice is a polyester cabinet.



### Features

Dräger has a diverse range of fire hose cabinets. The outside is finished to a high gloss (RAL 3000). The inside is finished fibre structure also in RAL 3000. All the cabinets are finished off with stainless steel hinges and fasteners.

### Accessories

- Fire hose
- Spray nozzle

- Coupling
- Coupling spanner
- All accessories need to be ordered separately

### Specific requirements

All the cabinets can be finished off to your own specific requirements. For example, rivets (aluminium\stainless) stainless nuts, bolts and other various hardware.

### Safety Cabinet, polyester

Fire hose, branch pipe and spanner cabinet

### TECHNICAL SPECIFICATIONS

Dimensions	640 x 540 x 170 mm (LxWxD), type AP-V07
Aperture dimensions	540 x 490 x 155 mm (LxWxD), type AP-V07
Angle of door opening	100°
Weight	7 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
Door handle	Protex fastener
Hinges	SS 316
Reinforcement	Core material
Lettering	White
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Firehose Safety Cabinet, type AP-V07	1	03110007
Firehose Safety Cabinet, type AP-V08	1	03110008
Fire hose - Storz - Syn / LM / N66 / 2,0" 20 meter, Red	1	SG00542
Unifire spray V-12 Nozzle, jet / foam	1	SG01011
Storz-arm: LM-N66-2" Bi (RA), with rubber seal	1	SG00727
Storz-arm: LM-N66-2" Bi (RA), with rubber seal	1	SG00892

## Safety Cabinet for fireman's axe: DMO-137

Cabinet to store firemen's axe. Fireman's axe needs to be ordered separately.



### Features

- Outside finished to a high gloss ral 3000
- Inside is finished fibre structure
- Comes standard with perspex window
- Bracket for fire axe
- 3 Stainless steel hinges

- 2 Stainless steel fasteners

### Optional extras

- Fire retardancy
- An other (RAL) colour
- EPDM seal

### Safety Cabinet

To store fireman's axe

### TECHNICAL SPECIFICATIONS

Dimensions	1020 x 420 x 100 mm (HxWxD)
Aperture dimensions	1000 x 380 x 90 mm (HxWxD)
Angle of door opening	100°
Weight	10 kgs
Material	GRP
Colour	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
Door handle	Protex fastener
Hinges	SS 316
Reinforcement	Core material
Approvals	CE

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Cabinet for fireman's axe, excluding axe	1	SG02005
Fireman's axe, 900 mm, Wood	1	SG03805
Leather pouch for fire axe 900 mm	1	SG03806

## (Fire extinguishing) Equipment cabinet JBWE/A-70

These polyethylene cabinets can be used for multi purposes such as storage of fire or safety equipment. Deliverable in various sizes, with a green or red door.



### Applications

- storage and transshipment
- (international) shipping
- inland shipping
- marine
- offshore
- petrochemical industry

### Features

- truck or wall mounting

- suitable for 6 kg fire extinguishers
- rubber seal and polycarbonate windows
- left or right hinged mounting
- buckle web strap
- plastic toggles, lynch pins and hinge pins as standard
- fire extinguisher label supplied loose

### Optional

- strap for securing the extinguisher

### Fire Extinguisher Cabinet JBWE/A-70

Deliverable with red or green door

### TECHNICAL SPECIFICATIONS

Type	Jonesco
Dimensions	300 x 700 x 253 mm
Color	Cabinet : Black Door: Red or green

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Extinguisher Cabinet JBWE-70, red door	1	SG02423
Safety Cabinet JBWA-70, green door	1	SG02421

## (Fire extinguishing) Equipment cabinet JBXE-83

These polyethylene cabinets can be used for multi purposes such as storage of fire or safety equipment. Deliverable in various sizes, with a green or red door.



(Fire extinguishing) equipment cabinet JBXE-83

For dry powder, foam or CO<sub>2</sub> extinguishers

### Applications

- (international) shipping
- inland shipping
- marine
- offshore
- petrochemical industry

### Features

- made from environmental friendly and fully recyclable PE
- strong and light weight design
- resistant to UV and most chemicals
- high impact strength

- cabinet suitable for all types of portable extinguishers up to 12 kg
- wall mounting
- fitted with poly carbonate window
- door seal rubber/epdm
- left or right hinged door
- plastic toggle, lynch pin and hinge pin as standard

### Installation

Holes for fixation of the cabinet to be drilled during installation.

### TECHNICAL SPECIFICATIONS

Type	Brandblusapparaat kast JBXE-83
Dimensions	830 x 330 x 265 mm
Color	Cabinet : Black Door: Red or green

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Polyethylene fire extinguisher cabinet JBXE-83, red door	1	SG02432

## (Fire extinguishing) Equipment cabinet JBDE/A-72

Wall cabinet to hold all sorts of safety equipment such as emergency escape masks, filters, protective clothing (helmets, gloves, overalls), first aid materials. The cabinets can be delivered with a red or green door.



**Applications**

- (international) shipping
- inland shipping
- marine
- offshore
- petrochemical industry

**Features**

- wall cabinet made from environmental friendly
- fully recyclable PE
- strong and light weight design

- resistant to UV and most chemicals
- high impact strength
- wall mounting
- fitted with poly carbonate window
- door seal rubber/epdm
- left or right hinged door
- plastic toggle, lynch pin and hinge pin as standard

Cabinet suitable for all sorts of safety materials

**(Fire extinguishing) equipment cabinet JBDE-72**

To store a fire extinguisher and hose with supplies

**TECHNICAL SPECIFICATIONS**

Dimensions	720 x 540 x 270 mm
Color	Cabinet : Black Door: Red

**ORDER INFORMATION**

Description	Unit Sales	Articlenr
Fire Extinguisher Cabinet JBDE-72, red door	1	SG02426
Safety Cabinet JBDA-72, green door	1	SG02425

## (Fire extinguishing) Equipment cabinet JBDE/A-85

These polyethylene cabinets can be used for multi purposes such as storage of fire or safety equipment. Deliverable in various sizes, with a green or red door.



### Applications

- (international) shipping
- inland shipping
- marine
- offshore
- petrochemical industry

### Features

- transport and wall cupboard for 2 fire extinguishers to 12 kg or 1 and various extinguishing fire

- material color and UV resistant
- the cabinet is fitted with rubber seals
- equipped with 1 twist closure
- very strong and lightweight material
- resistant to most chemicals and oils
- made of (recyclable) PE
- very suitable for placing in the open
- provided with rubber seal

### Optional

- strap for securing the extinguisher

### (Fire extinguishing) equipment cabinet JBDE/A-85

For 12 kilo dry powder or 9 liter foam or fire hose and supplies

### TECHNICAL SPECIFICATIONS

Type	Jonesco
Dimensions	Outside: 850 x 540 x 375 mm Inside: 760 x 530 x 300 mm
Color	Cabinet : Black Door: Red or green

### ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Extinguisher Cabinet JBDE-85, red door	1	SG02436
Safety Cabinet JBDA-85, green door	1	SG02435



# Index

## A

Accessories	184
Airline breathing equipment	348
Alcohol screening devices	284

## B

Breathing air compressors (movable)	359
Bridge set	170

## C

Chemical splash suits	365
Control systems	262
Couplings and spanners	52
Covers for all fire extinguishers	107

## D

Detection of Flammable Gases and Vapours	273
Detection of Toxic Gases and Oxygen	268
Diphoteryne sterilize products	171
Disinfection of drinking water	406
Dräger Aerotest Simultan HP	364
Dräger breathing apparatus	296
Dräger calibration and bump testing	243
Dräger compressed air cylinders	310
Dräger configuration and evaluation software	259
Dräger detector tube pumps	249
Dräger emergency escape breathing devices	320
Dräger filter masks and cartridges	335
Dräger fire protection deluge valves	57
Dräger fire spray nozzles	59
Dräger firefighting monitors	56
Dräger foam proportioning equipment	58
Dräger full face masks for breathing apparatus	307
Dräger fumigation kit	257
Dräger gas tight suits	369
Dräger gaseous fire suppression systems	60
Dräger tubes	252
Dräger X-am® pump	241
Drugs screening devices	292

## E

Electronic Distress Flare	150
Emergency defibrillator	175
Eye wash bottles and holders	403

## F

Fire blanket	106, 176
Fire hoses	42

Fire plan holder	70
Fireman's accessories	92
Fireman's clothing	71
Fireman's helmets	85
First aid kit and backpack	173
Foam making liquid 1%	61
Foam making liquid 3%	63
Foam making liquid 6%	67
Fogmachine	410
Freshwater salinometer	407

## G

GRP DMO cabinets	413
------------------	-----

## H

Hand flares	159
Helicopter deck accessories	209
Helicopter rescue equipment - according to CAP 437	186

## I

Immersion suits	130
Inflatable life jackets (double chamber)	122
Inflatable life jackets (single chamber)	113
International shore connection	54

## L

Life boat set	169
Life jacket lights	143
Lifebuoy brackets	154
Lifebuoy lights and MOB light	156
Lifebuoys and lines	151
Lightstick	411
Line throwing device	167

## M

Man Over Board Personal Locator	148
MOB lights and smoke signals	165
Monitors (foam and water)	55
Movable CO2 extinguishers	37
Movable foam extinguishers	39
Movable powder extinguishers	32
Multi-gas detection equipment	227

## O

Oxygen resuscitator	172
---------------------	-----

## P

Parachute signal rocket	161
Portable CO2 extinguishers	19
Portable foam extinguishers	21
Portable powder extinguishers	7

Portable water extinguishers	29
Portable wet chemical extinguishers	31

## R

Rain clothes	395
Rigid life jackets	111

## S

Safety gloves	393
Safety goggles and face shields	390
Safety harness and lines	397
Safety helmets	381
Safety jackets and overalls	378
Safety shoes and boots	386
Safety showers and eye wash-stations	400
Single-gas detection equipment	213
Smoke and heat detectors	408
Smoke signal	163
Spray nozzles and branch pipes (foam)	50
Spray nozzles and branch pipes (water)	45
Standard cabinets	426
Stretchers	178
System components	282

## T

Thermal protective aid suits	142
Thermal protective blanket	177
Transport suits	141
Tripod and fall protection equipment	399

## V

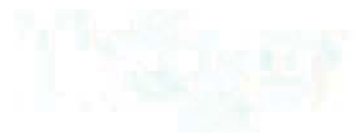
Voice communication	314
---------------------	-----

## W

Wall brackets for fire extinguishers	109
Wireless Solutions	260
Work life jackets	129
Work suits	136







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