

DRAEGER GAS DETECTION

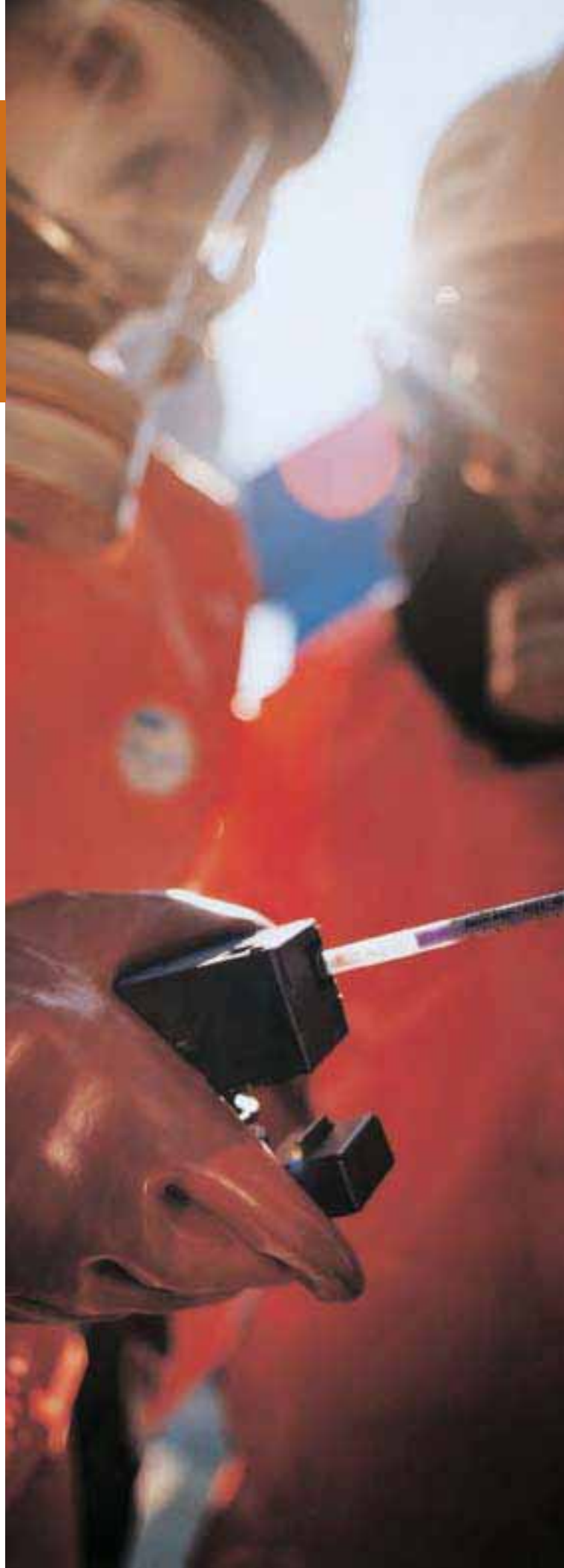
PIONEERING SOLUTIONS

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X-am 1100/1700/ 2000



THE DRÄGER X-AM 1100/1700/2000 ARE A NEW GENERATION OF PERSONAL GAS DETECTORS WHICH HAVE BEEN SPECIALLY DESIGNED FOR PERSONAL MONITORING. THESE GAS DETECTORS RELIABLY MEASURE COMBUSTIBLE GASSES AND VAPORS, AS WELL AS O₂, CO AND H₂S. THEIR ERGONOMIC DESIGN, MOBILE PHONE DIMENSIONS AND LIGHT WEIGHT MAKE THEM THE PERFECT COMPANION IN YOUR DAILY WORK. RELIABLE MEASUREMENT TECHNOLOGY, LONG SENSOR LIFE AND EASY OPERATION GUARANTEE MAXIMUM SAFETY AT AN EXTREMELY LOW COST OF OWNERSHIP.



Dräger X-am 1100:
The ideal 4-gas detector for industrial shutdowns.

The instrument's light weight and mobile phone size - unique in today's market - guarantee users a high level of comfort and convenience. By design, the instruments are easy to use, thanks to the practical two-button control panel and easy to understand display icons.

The X-am 2000 is available in 1 to 4 gas configurations with a 1000 hour data logger. This monitor is not life limited and has user replaceable sensors, unmatched for a monitor of this type. The optional T4 NiMH battery pack will be covered by a two-year warranty.

The X-am 1700 is a dedicated 4 gas detector but with a limited 2 year life. An event logger with a 65,000 event capacity is standard. This monitor is suited for personal monitoring applications where minimal maintenance resources are available.

The X-am 1100 is also a dedicated 4 gas detector with event logger, but a 120 day life. This monitor is great for shutdowns and construction applications.

The new bump-test station will allow for complete function tests in less than 15 seconds. Automatic recognition of the monitor starts the process as soon as the monitor is placed in the cradle. The monitor can also be configured to automatically

perform a complete calibration when placed in the test station. Records of the tests are stored in the instrument's data or event logger.

The Dräger E-Cal automatic test, calibration, and documentation system is also an ideal complement to the instrument, saving time and minimizing the workload.

For improved safety when facing unknown gas hazards the catalytic EX sensor, calibrated to methane, responds quickly to explosive gases. It also offers a high level of sensitivity to combustible organic vapors, thus providing dependable warnings in the event of explosive hazards.

Dräger-Sensors® stand for innovative technology at the highest level. These Dräger X-am monitors feature the latest series of powerful electrochemical Dräger-Sensors® from the miniaturize XXS generation.

The Dräger X-am 1100/1700/2000 monitors are tough: water and dust resistant to IP 67, the instruments remain fully functional and ready for use even after being dropped in water. The integrated rubber protection and shockproof sensors ensure additional resistance to impact and vibration. These Dräger monitors also have certified protection against electromagnetic and RFI interference.



Dräger X-am 1700:
4-gas detector for two years of personal air monitoring.



Dräger X-am 2000:
Robust 1- to 4-gas detector for personal monitoring

SPECIFICATIONS

Gases Detected	Combustible Gases, O ₂ , CO and H ₂ S.
Size	1.85 x 5.08 x 1.22 inch (7 x 129 x 31 mm)
Weight	7.8 oz (220 g)
Approvals	ATEX: II 2G EEx ia d IIC T4/T3 - I M2 EEx ia d I UL: Cl. I Div. 1 Group A,B,C,D - Cl. II E,F,G T.-Code T4/T3 CSA*: Cl. I Div. 1 Group A,B,C,D - Cl. II E,F,G T.-Code T4/T3 IECEX: Ex ia d I/IIC T4/T3 CE-mark: Electromagnetic compatibility (directive 89/336/EEC

*pending

ORDER INFORMATION

X-am 2000 Monitor - unlimited life with data logger	
X-am 2000 EX, O ₂ , CO, H ₂ S w/ alkaline battery pack	8318910
X-am 2000 EX, O ₂ , H ₂ S w/ alkaline battery pack	8318890
X-am 2000 EX, O ₂ , CO w/ alkaline battery pack	8318880
X-am 2000 EX, CO w/ alkaline battery pack	8318790
X-am 2000 EX, H ₂ S w/ alkaline battery pack	8318780
X-am 2000 EX, O ₂ w/ alkaline battery pack	8318770
X-am 2000 EX w/ alkaline battery pack	8318750
X-am 1700 Monitor - 2 year life with event logger	
X-am 1700 EX, O ₂ , CO, H ₂ S w/ alkaline battery pack	8318730
X-am 1100 Monitor - unlimited life with event logger	
X-am 1100 EX, O ₂ , CO, H ₂ S w/ alkaline battery pack	8318710
Accessories	
NiMH battery pack T4	8318704
NiMH battery pack T4 with charger module and power pack	8318785
Alkaline battery pack T3/T4 (without alkaline batteries)	8318703
Alkaline battery for alkaline power supply 8318703 (2 required)	4543708
Dräger Bump Test Station for X-am 1100/1700/2000	8319131
Mixed gas cylinder, 2.5 vol.-% CH ₄ , 100 ppm CO; 25 ppm H ₂ S, 17 vol.-% O ₂	4594655
Deluxe Instrument Case	8318755

X-am 3000 Monitor



THE X-AM 3000 MONITOR IS A SMALL AND INNOVATIVE MEASURING DEVICE FOR COMBUSTIBLE GASES, O₂, CO AND H₂S IN INDUSTRIAL GAS DETECTION APPLICATIONS. GO ABOUT YOUR JOB CONFIDENTLY KNOWING THAT THE X-AM 3000 WILL MEASURE AND ALERT YOU TO DANGEROUS GASES AND VAPORS.

The most convenient feature of the X-am 3000 is the optional built-in remote sample pump. Everything is in one package for your confined space applications. Simply attach the pump adapter and hose and you're ready to measure gases in a confined space. Additionally, the small profile of the X-am 3000 makes it easy to take into a confined space or wear on one's body all day.

The X-am 3000 is very easy to use. The large display continuously displays the level of gas measured. The three large buttons on the front of the unit turn it ON and OFF, acknowledge alarms, and access frequently required features such as fresh-air calibration. Additional functions and features are accessed through plain text password-protected menus.

Distinctive alarms means that you will always know when a hazardous level of gas is present. The two high intensity visual red alarm lights, a loud audible alarm and a standard vibrating alarm demand attention, even in high noise areas. Different alarm cadences distinguish between pre and main

alarms. The large easy-to-read display quickly indicates the gases measured, their concentrations, and other relevant data to the user. An optional internal datalogger records all of the gas measurements and events for documentation purposes.

The X-am 3000 may be small in size, but it is designed for use in the most demanding industrial environments. The rugged polymer housing is resistant to many corrosive chemicals as well as the bumps and drops that one may encounter in confined space entry or an industrial environment. All joints and openings are sealed or have gaskets to prevent the ingress of dirt or water. If required, an optional rubber boot provides additional protection to the X-am 3000.

With the convenient internal sampling pump, the X-am 3000 is very well suited for confined space entry applications such as those found in the water/waste water industry, petrochemical plants and other applications.





SPECIFICATIONS

Gases Detected	Combustible Gases, O ₂ , CO and H ₂ S.
Size	3.5 x 5.5 x 2.1 inch (89 x 140 x 55 mm)
Weight	19.4 oz. (550 g)
Approvals	UL: Class I, Division 1, Groups A-D, T4 CSA: Class I, Division 1, Groups A-D, T4 MSHA: permissible gas detector ATEX: EEx iad IIC T4 (-25 to + 55°C)



ORDER INFORMATION

The following part numbers include: Instrument w/pump, noted sensors, NiMH battery, battery charger, service tool, calibration and pump adapters, 10ft. tubing, water-stop filter, calibration gas cylinder, regulator, rubber boot, and carry case.

X-am 3000 LEL, O ₂ , CO, H ₂ S Confined Space Kit	4543721
X-am 3000 LEL, O ₂ , H ₂ S Confined Space Kit	4543720
X-am 3000 LEL, O ₂ , CO Confined Space Kit	4543719
X-am 3000 LEL, O ₂ Confined Space Kit	4543740

The following part numbers include: Instrument, noted sensors, NiMH battery, battery charger, service tool, calibration adapter and instruction manuals. Pump units include pump adapter, 10ft. tubing and water-stop filter.

X-am 3000 LEL, O ₂ , CO & H ₂ S with internal pump	4543718
X-am 3000 LEL, O ₂ & H ₂ S with internal pump	4543717
X-am 3000 LEL, O ₂ & CO with internal pump	4543716
X-am 3000 LEL, O ₂ with internal pump	4543739

X-am 3000 LEL, O ₂ , CO, & H ₂ S	4543715
X-am 3000 LEL, O ₂ & H ₂ S	4543714
X-am 3000 LEL, O ₂ & CO	4543713
X-am 3000 LEL, O ₂	4543738

Alkaline Battery Pack	4543583
Internal Datalogger	4543625

Protective Rubber Boot	4543619
Leather Carrying Case	4543618
Nylon Carrying Case	4543617

X-am 3000 is available for rental.



X-am 7000 Monitor



THE X-AM 7000 MONITOR COMBINES ELECTROCHEMICAL (EC), CATALYTIC OXIDATION (CAT), PHOTO IONIZATION (PID) AND INFRARED (IR) SENSING TECHNOLOGY FOR A TOTAL OF UP TO 5 SENSORS. YOU CAN CHOOSE FROM OVER 25 DIFFERENT ELECTROCHEMICAL DRAEGER-SENSORS, 2 DIFFERENT CATALYTIC SENSORS, A PID SENSOR AND 3 DIFFERENT IR SENSORS. THE X-AM 7000 IS THE SMALLEST GAS MONITOR IN THE WORLD THAT CAN UTILIZE ALL OF THESE TECHNOLOGIES IN ONE COMPACT PACKAGE. THE MULTIPLE GAS MEASUREMENT AND INTERNAL PUMP CAPABILITIES MAKE THIS UNIT AN IDEAL CHOICE FOR CONFINED SPACE ENTRY APPLICATIONS LIKE THOSE FOUND IN REFINERIES, CHEMICAL PLANTS, UTILITY PASSAGE WAYS, AND PAPER MILLS.



The X-am 7000 Monitor has many "strengths". The strong internal pump can draw gases from well over 150 ft. (45 m). This is useful for deep ship holds, large storage silos or reaction towers in refineries. The integrated rubber boot and strong advanced-polymer enclosure of the X-am 7000 with withstands the toughest industrial environments, providing good resistance against dust, RFI interference, rain, and extreme temperatures. Loud audible and bright visual alarms warn the user that hazardous levels of gas are present. The standard NiMH battery pack will last well in excess of an 8-hour shift and the optional high capacity battery will allow operation times of greater than 20 hours.

Another strength of the X-am 7000 is the optional IR Sensor. The infrared combustible gas (IR-Ex) sensor measures a wide range of hydrocarbons. However, unlike catalytic sensors, the IR sensor will

measure hydrocarbons in inert backgrounds (without oxygen). The IR-Ex is very good at measuring heavier hydrocarbons (like turpentine, kerosene and jet fuels) from ppm to %LEL levels. Gases that poison catalytic sensors such as H_2S , halogenated hydrocarbons, and silicones have no effect on the IR-Ex Sensor making it ideal for industries that make or use these types of compounds. Gases like methane and propane can be measured in ppm, %LEL, and %Vol. measurement ranges (with the same instrument), which make the X-am 7000 well suited for the natural gas industry.

The IR- CO_2 sensor makes the X-am 7000 the ideal choice for breweries, carbonated beverage bottlers, and bulk gas handlers who need to measure Carbon Dioxide. The IR- CO_2 sensor detects from low ppm levels to %Vol. concentrations of CO_2 .



The smart PID sensor measuring a wide range of VOC's up to 5,000 ppm, depending on the gas selected. It has 20 compounds pre-programmed in its library and 3 user programmable entries available. This sensor is well suited for confined space entry, area monitoring and HazMat applications.

SPECIFICATIONS

Smart PID Sensors	VOC's
Smart EC Sensors	O ₂ , H ₂ S, CO, CL ₂ , NH ₃ , NO ₂ , SO ₂ , HCN, CO ₂ , NO, H ₂ , H ₂ S-HC, CO-HC, PH ₃ -HC, Organic Vapors, Hydrides, Amines, Mercaptans and Combustible Gases (Ex).
Smart IR Sensors	Combustible Gases (Ex) or Carbon Dioxide (CO ₂)
Smart CAT Sensors	Standard 100 %LEL Combustible Gas or 100% Vol. CH ₄
Size	5.9 x 5.5 x 2.9 inch (150 x 140 x 75 mm)
Weight	2.4 lbs. (1.09 kg) with standard battery
Approvals	UL: Class I, Division 1, Groups A-D, T4 CSA: Class I, Division 1, Groups A-D, T4 ATEX: II2G EEx ia d IIC T4 I M2 ia d I

ORDER INFORMATION

The following Kits include the X-am 7000 Monitor with Internal Pump, integrated rubber boot, carrying strap, standard NiMH battery pack, noted sensors (with 5 year warranty), single-unit battery charger system, calibration adaptor, pump adapter with water stop filter, and instruction manuals.

X-am 7000 Ex / O ₂	4552916
X-am 7000 Ex / O ₂ / CO	4552917
X-am 7000 Ex / O ₂ / H ₂ S	4552198
X-am 7000 Ex / O ₂ / CO / H ₂ S	4552199
X-am 7000 IR-CO ₂	4552204
X-am 7000 IR-CO ₂ / O ₂	4552205
X-am 7000 IR-Ex / O ₂	4552200
X-am 7000 IR-Ex / O ₂ / CO / H ₂ S	4552203
Leather Carrying Case	8317683
Nylon Transport Case	8317684

X-am 7000 is available for rental.



MiniWarn



THE MINIWARN MONITOR IS A MULTIPLE GAS-MEASURING DEVICE THAT IS WELL SUITED TO A WIDE VARIETY OF INDUSTRIAL GAS DETECTION APPLICATIONS. THE FLEXIBILITY OF THE MINIWARN PRODUCT LINE ALLOWS EVERY USER TO OPTIMALLY CONFIGURE AN INSTRUMENT TO MEET THEIR NEEDS. CHOOSE FROM OVER 25 DIFFERENT PLUG-AND-PLAY DRÄGER-SENSORS®, 3 INTERCHANGEABLE BATTERY PACKS, AND A WIDE VARIETY OF OPTIONS AND ACCESSORIES TO MEET YOUR EXACT GAS MONITORING REQUIREMENTS.

The most important feature of the MiniWarn is ease-of-operation. The three buttons on the front of the unit turn it ON and OFF, acknowledge alarms, and access frequently required features such as battery levels and fresh-air calibration. All other functions and features are accessed through plain text password-protected menus.

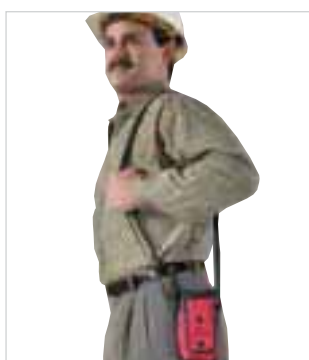
The small profile of the MiniWarn (even when equipped with its external 30 ft draw sample pump) makes it easy to take into a confined space or wear on one's body all day. The rugged polymer housing is lighter than metal and resists dirt and liquids as well as many corrosive chemicals that one may encounter in an industrial environment. All joints and openings are sealed or have gaskets to prevent the ingress of dirt or water.

The 360° visual red alarm light and loud audible alarm provide an attention getting warning when gas concentrations have reached hazardous levels. The large easy-to-read display quickly indicates the gases, their concentrations, and other relevant data to the user.

Confined space entry is the most popular application for the MiniWarn monitor such as those occurring in the utilities, petrochemical plants, and underground mines. Such applications are especially convenient with MiniWarn's easily attached and compact motorized remote sample draw pump.



Nylon Transport Case



Nylon Carrying Case

SPECIFICATIONS

Sensors Accepted

H₂S, CO, O₂, Cl₂, NO₂, SO₂, NH₃, HCN, CO₂, NO, H₂, H₂S-HC, CO-HC, PH₃-HC, Organic Vapors, Hydrides, Amines, Mercaptans and Combustible Gas (Ex)

Size 3.1 x 5.6 x 2.3 inch (78 x 143 x 58 mm)

Weight 15.8 oz. (450 g) with NiCd battery

Approvals UL: Class I & II, Division 1, Groups A-G, T4
CSA: Class I & II, Division 1, Groups A-G, T4
MSHA: Permissible Gas Detector
ATEX: EEx ia d IIC T4

ORDER INFORMATION

The following MiniWarn Kits include the MiniWarn Monitor with NiCd battery pack, noted sensors, single-unit battery charger system, calibration adapter, and instruction manuals.

Features XS Sensors with 3 year Warranty

MiniWarn Ex/O ₂	4552693
MiniWarn Ex/O ₂ /H ₂ S	4552692
MiniWarn Ex/O ₂ /CO	4552691
MiniWarn Ex/O ₂ /CO/H ₂ S	4552690

Features XS-R Sensors with 5 year Warranty

MiniWarn Ex/O ₂	4552752
MiniWarn Ex/O ₂ /H ₂ S	4552754
MiniWarn Ex/O ₂ /CO	4552753
MiniWarn Ex/O ₂ /CO/H ₂ S	4552755

For other sensor selections, see pages 14-15.



Remote Sampling Pump

Remote Sample Pump	6408112
Leather Carrying Case	6408134
Nylon Carrying Case	4552746
Pelican® Transport Case	4523069
Alkaline Battery Pack	6408116
Nylon Transport Case	4594631
Computer Based Training CD	4552773

MiniWarn is available for rental.

Pac Ex 2



THE PAC EX 2 IS EASILY WORN ON ONE'S BELT FOR RELIABLE PROTECTION AGAINST COMBUSTIBLE GASES AND OXYGEN. IT IS WELL SUITED FOR PERSONAL PROTECTION OR ESTABLISHING "HOT PERMITS" IN AREAS WHERE COMBUSTIBLE GAS AND OXYGEN LEVELS ARE POTENTIAL HAZARDS. THE OPTIONAL REMOTE SAMPLING PUMP EXTENDS THE APPLICATIONS OF THIS MONITOR TO CONFINED SPACE ENTRY.

The robust polymer housing withstands the use and abuse expected in demanding industrial applications. A loud audible alarm and bright visual alarm alert the user of hazardous levels of gas. Two levels of alarm indicate increasing concentrations of combustible gas and high or low oxygen levels. The standard vibrating alarm warns users in high noise background environments. The exact concentration of gas is displayed on the large, easy-to-read LCD readout. Using either the standard nickel metal-hydrate or optional alkaline battery packs, the Pac Ex 2 Monitor operates for over 12 hours.

The Pac Ex 2 Monitor is operated with only three buttons making it extremely simple and easy to use. The standard internal data logger will record gas exposures and events (on/off, alarms, etc.) for a period of 40 hours. A unique feature of the Pac Ex 2 combustible gas sensor is its ability to measure a wide range of gases and the ability to measure methane in 0-100 %LEL and 0-100 %Vol. ranges.

Along with confined space entry, other popular uses include emergency response and leak detection applications. The Pac Ex 2 Monitor is ideal for use in natural gas extraction, transmission, and distribution, petrochemical plants, shipping, underground mines and other industries that face the dangers of combustible gases and oxygen.



SPECIFICATIONS

Measuring Ranges

Combustible Gases; 0-100 %LEL
 Methane: 0-100 %LEL, 0-5.0 %Vol.,
 0-100 %Vol.
 Oxygen: 0-25.0 %Vol.

Size

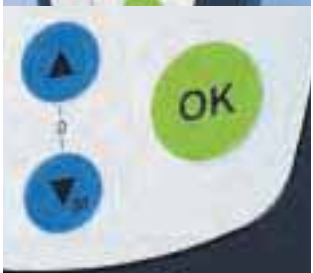
4.9 x 2.5 x 1.4 inch (124 x 64 x 357 mm)

Weight

11.2 oz. (320 g)

Approvals

UL: Class I, Division 1, Groups A-D, T4
 CSA: Class I, Division 1, Groups A-D, T4
 MSHA: Permissible Gas Detector
 ATEX: IIG2 EEx iad IIC T4 Tamb 55°C
 I M 2 EEx ibd Tamb 55°C



ORDER INFORMATION

Pac Ex 2 Monitor: Combustible Gases and Oxygen, includes standard charger	4530402
Pac Ex 2 Monitor: Combustible Gases, includes standard charger	4530401
Rubber Boot	8316116
Leather Carrying Case	8316117
Hard-Sided Transport Case	4056442
Remote Sample Pump	8316350
Hand Aspirator System	6801933
Telescopic Probe	8313025
Alkaline Battery Pack	8316111
Deluxe Charging Module Charges instrument, or battery and data communication port	8316345

Pac Ex 2 is available for rental.

Pac 3000/5000/7000 Monitor



Shown Actual Size

THE PAC 3000 AND 5000 MONITORS ARE 2-YEAR MAINTENANCE-FREE GAS DETECTION AND MEASURING DEVICES FOR HYDROGEN SULFIDE (H_2S), CARBON MONOXIDE (CO) OR OXYGEN (O_2). THE SMALL SIZE MAKES IT VERY COMFORTABLE AND EASY TO WEAR ON A BELT, LAPEL, OR BREAST POCKET ALL DAY. THE PAC 5000 MONITOR IS EQUIPPED WITH A CONTINUOUS CONCENTRATION DISPLAY. THE PAC 3000 SHOWS ONLY THE GAS FORMULA UNTIL THE MEASURED VALUE EXCEEDS THE ALARM POINTS. THE PAC 7000 OFFERS MORE FEATURES AND CAPABILITIES.

A unique feature of the Pac 3000 and 5000 is the Bump Test Mode. When activated, it requires the user to bump test the monitor by exposing it to gas. In the Pac 5000, the test is internally recorded for documentation purposes. The Bump Test Mode can be activated from the instrument's key pad or programmed with PC based software to occur at regular user-defined intervals.

The robust, rubber-coated, weather-proof, polymer housing withstands the use and abuse expected in demanding industrial applications. The instrument operates with only two buttons making it extremely simple and easy to use.

A loud audible alarm, two bright visual alarms and a strong vibrating alarm alert the user to hazardous concentrations of gas. Two levels of alarm indicate increasing concentrations. The Pac 5000 is equipped with an event logger that will store up to 60 alarm activations and other events which can be retrieved with Draeger software.

Applications for the Pac 3000 and 5000 Monitors include the protection of workers and contractors at oil and gas extraction sites, petrochemical plants, steel mills, and mines. The maintenance free design and simple operation is also popular for fire departments and utilities doing CO home inspections.

The Pac 7000 offers the same great monitoring capability as the other Pac units with the added features of on-board calibration and real time datalogging. The Pac 7000 sensors have a 2-year warranty, and are expected to operate more than 3 years. The sensor is field replaceable by the user. The Pac 7000 will show TWA, STEL and MAX values at the touch of a button and measure CO to 2000 ppm. The unit will operate 5-10 months 24/7 using a replaceable Lithium alkaline battery. All of this in the same compact, light weight package as the rest of the Pac family.



SPECIFICATIONS

Gases Measured	H ₂ S, CO, O ₂ & other toxics
Size	2.5 x 3.3 x 1.0 inch (64 x 84 x 25 mm)
Weight	3.8 oz. (106 g)
Operational Life	2 years
Approvals	UL / ULc: Class I, Division 1, Groups A-G T4 MSHA: Permissible gas detector ATEX: I/II 1/2G EEx ia I/IIC, T4

ORDER INFORMATION

Pac 3000 CO	0-500 ppm	4543840
Pac 3000 H ₂ S	0-100 ppm	4543841
Pac 3000 O ₂	0-25 %Vol.	4543842
Pac 5000 CO	0-500 ppm	4543846
Pac 5000 H ₂ S	0-100 ppm	4543847
Pac 5000 O ₂	0-25 %Vol.	4543848
Pac 7000 CO	0-1999 ppm	8318970
Pac 7000 H ₂ S	0-100 ppm	8318971
Pac 7000 O ₂	0-25 %Vol.	8318972
Pac 7000 CO ₂	0-5 %Vol.	8318975
Pac 7000 CL ₂	0-20 %Vol.	8318978
Pac 7000 HCN	0-50 %Vol.	8318973
Pac 7000 NH ₃	0-300 %Vol.	8318979
Pac 7000 NO ₂	0-50 %Vol.	8318977
Pac 7000 PH ₃	0-20 %Vol.	8318974
Pac 7000 SO ₂	0-100 %Vol.	8318976
Bump Test Station		8317410
Leather Carrying Case		4543836
Interface Cradle with cable & software		8318587

Pac 3000 and Pac 5000 are available for rental.

Pac III



Shown Actual Size

THE PAC III DELIVERS THE MOST VALUE OF ANY SINGLE GAS MONITOR AVAILABLE. THE MOST SENSORS AVAILABLE, THE LOUDEST AUDIBLE ALARM, THE BRIGHTEST VISUAL ALARM, THE LARGEST DISPLAY, AND THE EASIEST TO USE ALL IN ONE SMALL PACKAGE.

The size and design make it very comfortable and it is easily worn on a belt, lapel, or shirt pocket all day. The robust, chrome-plated polymer housing withstands the use and abuse expected in a wide variety of industrial applications, while providing unsurpassed RFI protection.

A loud audible alarm and bright visual alarm alert the user to hazardous levels of gas. Two levels of alarm indicate action levels at increasing concentrations. The concentration of gas is displayed on the LCD readout. This instrument is operated with only three buttons making it extremely simple and easy to use.

Draeger offers 28 different intelligent electrochemical sensors for the Pac III. The Standard and Hygiene instrument versions will accept any of these sensors and they can be interchanged as your requirements change. All Dräger-Sensors® provide fast and accurate response to the targeted gases and vapors. The Basic version comes dedicated to one specific gas, but offers many other Pac III features at an attractive price.

Applications for the Pac III Monitor include the protection of workers and contractors at chemical plants, oil platforms, steel mills, mines and almost any other industrial or working environment.



Computer Download Kit

SPECIFICATIONS

Sensors Accepted:

H₂S, CO, O₂, CL₂, NO₂, SO₂, NH₃, HCN, NO, CO₂, HF/HCL, H₂, H₂O₂, N₂H₄, H₂S-HC, CO-HC, PH₃-HC, Organic Vapors, Hydrides, Amines, and Odor

Size	2.6 x 4.3 x 1.3 inch (67 x 116 x 32 mm)
Weight	7.0 oz. (200 g)
Approvals	UL: Classes I & II, Division 1, Groups A-G, T6 CSA: Class I, Division 1, Groups A-D, T6 MSHA: Permissible Gas Detector ATEX: EEx ia IIC T4/T6

ORDER INFORMATION

The Pac III Standard and Hygiene will accept any of the Dräger-Sensors® listed above. Versions shown below come standard with a 9-Volt alkaline battery pack, sensors must be ordered separately. See pages 14-15.

Pac III Standard	4530010
Pac III Hygiene (with datalogger)	4530011
Pac III Hygiene Kit (with download kit)	4530311
Leather Carrying Case	4530286
Nylon Transport Case	4594631
Pelican Transport Case	4056442
Computer Download Kit (hardware and software)	4530312

Pac III is available for rental.



Leather Carrying Case

Electrochemical (EC) Sensors



THE SENSOR IS THE HEART OF ANY GAS DETECTION INSTRUMENT. DRAEGER SAFETY IS ONE OF THE FEW MANUFACTURERS OF GAS DETECTION INSTRUMENTS WHO ALSO MAKE THEIR OWN SENSORS AND WE HAVE MORE EXPERIENCE WITH THIS TECHNOLOGY THAN ANYONE ELSE. OVER MANY YEARS, DRÄGER-SENSORS® HAVE PROVEN THEMSELVES, EVEN UNDER THE MOST DIFFICULT CONDITIONS. OUR LATEST GENERATIONS OF SENSORS, THE EXTRA STABILITY (XS), PROVIDE OUTSTANDING PERFORMANCE IN A WIDE RANGE OF INDUSTRIAL APPLICATIONS.

Dräger-Sensors® XS feature:

- The largest selection of sensors and widest range of gases measured
- Interchangeability between the Pac III, MiniWarn and Multiwarn II Monitors
- The longest warranties offered by any manufacturer
- Fast and accurate response to changing gas concentrations
- Extra stability sensors that drift less and require less frequent calibration
- Superior operating temperature range (-40 to +105°F / -40 to +40°C) and stability due to an internal thermal compensating device
- Calibration and alarm information stored on a memory chip inside the sensor
- A wide operating pressure range (20.7 to 38.4 in Hg / 700 to 1300 mbar) due to a unique mechanical design of the sensor
- The ability to withstand and recover from high concentration exposures
- Calibration intervals of 6-12 months

Dräger-Sensor® XS-R

The XS-R sensors offer the longest warranties and require the least maintenance of any sensor in the industry. The Draeger-Sensors® XS-R for CO, H₂S and O₂ are covered by an unequalled 5-Year Warranty! Yes, even our O₂ sensor continuously detects oxygen for a period of 5 years! This is far better than what other manufacturers can offer. Calibration is only required on a yearly basis which greatly reduces down time and maintenance costs. The XS-R series offers the best cost of ownership through their unsurpassed stability and longevity.

Dräger-Sensor® XS

There are 30 different XS sensors currently available that will measure over 50 different toxic gases and vapors. This is possible through our patented three-electrode sensor technology and internal filter media that maximizes response to the gas of concern while greatly reducing responses to other gases that may be present. The superior stability and accuracy of Dräger-Sensors® is especially evident on the reactive gas and exotic gas sensors where longer lives and less frequent calibration is required. The large selection of Dräger-Sensors® allows you to meet a wider range of gas detection applications with your Pac III, MiniWarn or Multiwarn II Monitors. The CO, H₂S and O₂ version of the Dräger-Sensors® XS are provided with a long 3-year warranty.

Dräger-Sensor® XS-2

Our XS-2 Sensors offer the same advanced technology of the other Dräger-Sensors® in a value priced package. Available for CO, H₂S and O₂, these sensors come with a standard 2-year warranty. Even this series of Dräger-Sensors® offers superior performance and stability over other sensor brands.



Dräger-Sensor® XS-R



Dräger-Sensor® XS-2

TOXIC GAS AND VAPOR SENSOR SELECTION

The following table contains measurable gases, the corresponding sensor, the measuring range, and display resolution or display value.

Gas	Sensor	Range	Part No.	Resolution
Acetaldehyde	OV (XS)	0-200 ppm	6809115	1 ppm
Acetylene	OV (XS)	0-100 ppm	6809115	1 ppm
Acrylonitrile	OV-A (XS)	0-100 ppm	6809522	0.1 ppm
Ammonia	NH ₃ (PS2)	0-300 ppm	6809045	1 ppm
Ammonia	NH ₃ (XS)	0-200 ppm	6809145	1 ppm
Arsine	Hydride (XS)	0-10.0 ppm	6809135	0.01 ppm
Bromine	CL ₂ (XS)	0-20.0 ppm	6809165	0.01 ppm
Butadiene	OV (XS)	0-100 ppm	6809115	1 ppm
Butyl Mercaptan	Odorant (XS)	0-40.0 ppm	6809200	0.1 ppm
Carbon Dioxide	CO ₂ (XS)	0-5.0 %Vol.	6809175	0.1 %Vol.
Carbon Monoxide {2-year warranty}	CO (XS2)	0-2000 ppm	6810365	1 ppm
Carbon Monoxide {3-year warranty}	CO (XS)	0-2000 ppm	6809105	1 ppm
Carbon Monoxide {5-year warranty}	CO (XS-R)	0-2000 ppm	6810258	1 ppm
Carbon Monoxide (High Concentration)	CO-HC (XS)	0-10,000 ppm	6809120	1 ppm
Chlorine	CL ₂ (XS)	0-20.0 ppm	6809165	0.01 ppm
Chlorine Dioxide (Pac III only)	ClO ₂ (XS)	0-20.0 ppm	6811360	0.01 ppm
Diborane	Hydride (XS)	0-1.00 ppm	6809135	0.01 ppm
Diethylamine	Amine (XS)	0-100 ppm	6809545	1 ppm
Diethyl Ether	OV (XS)	0-200 ppm	6809522	1 ppm
Dimethylamine	Amine (XS)	0-100 ppm	6809545	1 ppm
Dimethyl Sulfide	Odorant (XS)	0-40.0 ppm	6809200	0.1 ppm
Dimethyl Disulfide	Odorant (XS)	0-40.0 ppm	6809200	0.1 ppm
Ethanol	OV (XS)	0-300 ppm	6809115	1 ppm
Ethyl Mercaptan	Odorant (XS)	0-40.0 ppm	6809200	0.1 ppm
Ethylene	OV (XS)	0-100 ppm	6809115	1 ppm
Ethylene Oxide	OV (XS)	0-200 ppm	6809115	1 ppm
Formaldehyde	OV (XS)	0-200 ppm	6809115	1 ppm
Fluorine	CL ₂ (XS)	0-20.0 ppm	6809165	0.01 ppm
Germane	Hydride (XS)	0-20.0 ppm	6809135	0.01 ppm
Hydrazine (Pac III only)	Hydrazine (XS)	0-3.00 ppm	6809190	0.01 ppm
Hydrazine "D" (Pac III only)	N ₂ H ₄ -D	0-3.00 ppm	6810295	0.01 ppm
Hydrogen	H ₂ (XS)	0-2000 ppm	6809185	1 ppm
Hydrogen 0.4 %Vol.	H ₂ (XS)	0-4.0 ppm	6811365	0.1 %Vol.
Hydrogen Chloride (Pac III only)	HF/HCl (XS)	0-30.0 ppm	6809140	0.1 ppm
Hydrogen Cyanide	HCN (XS)	0-50.0 ppm	6809150	0.1 ppm
Hydrogen Fluoride (Pac III only)	HF/HCl (XS)	0-30.0 ppm	6809140	0.1 ppm
Hydrogen Peroxide (Pac III only)	H ₂ O ₂ (XS)	0-20.0 ppm	6809170	0.1 ppm
Hydrogen Selenide	Hydride (XS)	0-1.00 ppm	6809135	0.01 ppm
Hydrogen Sulfide {2-year warranty}	H ₂ S (XS2)	0-100 ppm	6810370	1 ppm
Hydrogen Sulfide {3-year warranty}	H ₂ S (XS)	0-100 ppm	6809110	1 ppm
Hydrogen Sulfide {5-year warranty}	H ₂ S (XS-R)	0-100 ppm	6810260	1 ppm
Hydrogen Sulfide (High Concentration)	H ₂ S-HC (XS)	0-1000 ppm	6809180	1 ppm
Hydrogen Sulfide (Sensitivity Revised)	H ₂ S (XS2-SR)	0-100 ppm	6810575	1 ppm
Iso-Propyl Alcohol	OV (XS)	0-300 ppm	6809115	1 ppm
Methanol	OV (XS)	0-200 ppm	6809115	1 ppm
Methyl Amine	Amine (XS)	0-100 ppm	6809545	1 ppm
Methyl Mercaptan	Odorant (XS)	0-40.0 ppm	6809200	0.1 ppm
Nitric Oxide	NO (XS)	0-100 ppm	6809125	1 ppm
Nitrogen Dioxide	NO ₂ (XS)	0-50.0 ppm	6809155	0.1 ppm
Oxygen 100% Vol.	O ₂ -100%	0-100 %Vol.	6809550	0.1 %Vol.
Oxygen {2-year warranty}	O ₂ (XS2)	0-25.0 %Vol.	6810375	0.1 %Vol.
Oxygen {3-year warranty}	O ₂ (XS)	0-25.0 %Vol.	6809130	0.1 %Vol.
Oxygen {5-year warranty}	O ₂ (XS-R)	0-25.0 %Vol.	6809130	0.1 %Vol.
Phosgene (Pac III only)	COCl ₂	0-3.00 ppm	6808582	0.01 ppm
Phosphine	Hydride (XS)	0-10.0 ppm	6809135	0.01 ppm
Phosphine (High Concentration)	PH ₃ -HC (XS)	0-1000 ppm	6809535	1 ppm
Propylene	OV (XS)	0-100 ppm	6809115	1 ppm
Propylene Oxide	OV (XS)	0-200 ppm	6809115	0.1 ppm
Silane	Hydride (XS)	0-10.0 ppm	6809135	0.01 ppm
Styrene	OV-A (XS)	0-100 ppm	6809522	1 ppm
Sulfur Dioxide	SO ₂ (XS)	0-50.0 ppm	6809160	0.1 ppm
*Tetrahydrothiophene	Odorant (XS)	0-40.0 ppm	6809200	0.1 ppm
Triethylamine	Amine (XS)	0-100 ppm	6809545	1 ppm
Vinyl Acetate	OV (XS)	0-100 ppm	6809115	1 ppm
Vinyl Chloride	OV (XS)	0-100 ppm	6809115	1 ppm

E-Cal Systems



THE NEW DRAEGER E-CAL SYSTEM MAKES CALIBRATING YOUR DRAEGER GAS DETECTION INSTRUMENTS EASY WHILE SAVING TIME AND MONEY. THE E-CAL SYSTEM AUTOMATICALLY CALIBRATES UP TO 10 GAS MONITORS AND DOCUMENTS THE ENTIRE PROCESS MAKING IT IDEAL FOR ISO-9001 COMPLIANCE.

The E-Cal Station also bump tests, downloads stored information, charges the instrument, and changes instrument configurations with the included CC-Vision® software. This computer control ensures that the calibration is done properly every time according to Draeger's exacting specifications. The E-Cal system supports different calibration gases, even mixed gases and many non-standard gases. You can start with as little as a single drop-in instrument module and expand as your needs grow. Instrument modules can work alone as remote bump test or calibration modules using the adapter. The E-Cal system makes use of "parallel" processing to simultaneously process instruments yielding significant savings in gas, time, and money.

The New E-Cal System Features:

- Simultaneous automatic calibration of up to 10 instruments at once saving time and money
- Automatic bump testing, calibration, documentation, datalogging, and charging at each station
- CC-Vision® Software provides state-of-the-art asset management and complete ISO-9001 compliance for your instrument program
- The E-Cal System is closed and self-purging allowing operation without an expensive fume-hood. With optional purge module you can exhaust gas more than 75 feet away
- Modules can function independently with or without a PC as "bump" stations or as mixed gas autocal stations for smaller users
- Compatible with Draeger instruments



SPECIFICATIONS

Dimensions

Master Station (L x W x H)	12.3 x 12.1 x 2.5 in (295 x 290 x 60 mm)
MiniWarn Module (L x W x H)	12.3 x 5.6 x 2.5 in (295 x 135 x 60 mm)
Multiwarn II Module (L x W x H)	12.3 x 10.0 x 2.5 in (295 x 240 x 60 mm)
Pac III Module (L x W x H)	12.3 x 5.6 x 2.5 in (295 x 135 x 60 mm)
Pac X000 Module (L x W x H)	12.3 x 10.0 x 2.5 in (295 x 240 x 60 mm)
X-am 1/2/5000 Module (L x W x H)	12.3 x 5.6 x 2.5 in (295 x 135 x 60 mm)
X-am 3000 Module (L x W x H)	12.3 x 10.0 x 2.5 in (295 x 240 x 60 mm)
X-am 7000 Module (L x W x H)	12.3 x 10.0 x 2.5 in (295 x 240 x 60 mm)

COMPUTER REQUIREMENTS

Computer System	IBM Compatible PC
Processor	Pentium I or faster
Available RAM	Minimum 16 MBytes
Operating System	Microsoft Windows 95, Windows 98, Windows NT, Window 2000, Windows XP
Connections	Two available serial ports, 1 available USB port with appropriate adapters, or combination

ORDER INFORMATION

Master Station 2 USB (with inputs for 2 gas bottles)	8319452
Master Station 12 (with inputs for up to 12 gas bottles)	8319412
Master Station 6 (with inputs for up to 6 gas bottles)	8319456
Module Adapter (for single instrument)	8319409
MiniWarn E-Cal Module	8316552
Multiwarn II E-Cal Module	8316553
Pac III E-Cal Module	8316554
Pac Ex 2 E-Cal Module	8316539
Pac X000 Module	8318589
X-am 1/2/5000 E-Cal Module	8318754
X-am 3000 E-Cal Module	8317719
X-am 7000 E-Cal Module	8317705
Computer Download Kit (hardware & software)	4530312



Calibration Gases



ALL GAS DETECTION SENSORS REQUIRE PERIODIC CALIBRATION OR BUMP TESTING. DRAEGER OFFERS A FULL RANGE OF CALIBRATION GAS MIXTURES IN VARIOUS CONCENTRATIONS AND RELATED SUPPLIES.

TOXIC GAS

The following gases are most commonly requested and recommended calibration gases for TWA measurements. Other gases and concentrations are available, contact Draeger Safety for the full selection of calibration gases.

Chemical	Concentration	Cylinder	Part No.
Ammonia (NH ₃)	50 ppm in N ₂	58L/500 psi	4594957
Carbon Dioxide (CO ₂)	2.5 %Vol. in Air	103L/1000 psi	4595193
Carbon Monoxide (CO)	50 ppm in Air	103L/1000 psi	4502153
Chlorine (Cl ₂)	5 ppm in N ₂	58L/500 psi	4594964
Ethylene (for OV Sensor)	100 ppm in Air	103L/1000 psi	4594645
Hydrogen Chloride (HCL)	10 ppm in N ₂	58L/500 psi	4594658
Hydrogen Cyanide (HCN)	10 ppm in N ₂	58L/500 psi	4594962
Hydrogen Sulfide(H ₂ S)	25 ppm in N ₂	58L/500 psi	4502155
Nitric Oxide (NO)	25 ppm in N ₂	58L/500 psi	4552020
Nitrogen Dioxide (NO ₂)	10 ppm in N ₂	58L/500 psi	4594977
Phosphine (PH ₃)	0.5 ppm in N ₂	58L/500 psi	4597057
Sulfur Dioxide (SO ₂)	10 ppm in N ₂	58L/500 psi	4597050

COMBUSTIBLE GASES

Chemical	Concentration	Cylinder	Part No.
Hydrogen	50 %LEL (2.0 %Vol.) in Air	103L/1000 psi	4594627
Methane (CH ₄)	50 %LEL (2.5 %Vol.) in Air	103L/1000 psi	4557019
Methane (CH ₄)	40 %Vol. in N ₂	34L/500 psi	4594625
Pentane	50 %LEL (0.75 %Vol.) in Air	80L/750 psi	4510057
Propane	35 %LEL (0.75 %Vol.) in Air	58L/500 psi	4594624

MULTI-COMPONENT CALIBRATION GASES

Chemical/Concentration	Cylinder	Part No.
Methane 50 %LEL / CO, 100 ppm / H ₂ S 25 ppm / in Air	58L/500 psi	4594943
Methane 50 %LEL / CO, 100 ppm / in Air	103L/1000 psi	4594945
Pentane 30 %LEL / CO, 100 ppm / H ₂ S 25 ppm / Air	58L/500 psi	4594944
Pentane 30 %LEL / CO, 100 ppm / in Air	103L/1000 psi	4594947

CYLINDER REGULATORS

Chemical	Max Press	Part No.
Standard Regulator, suitable for most calibration gases	1000 psi	4557020
Trigger Control Regulator, allows both calibration and bump testing	1000 psi	4594640
Demand Valve Regulator, for use with sampling pumps	1000 psi	4595641
Reactive Gas Regulator, for use with NH ₃ Gas	500 psi	4594952

BUMP TEST GASES (Cylinder regulator not required)

Chemical/Concentration	Cylinder	Part No.
Hydrogen Sulfide (H ₂ S)/25 ppm in N ₂	11L/155 psi	4594634
Carbon Monoxide (CO)/100 ppm in Air	11L/155 psi	4595632
Methane (CH ₄)/50 %LEL in Air	11L/155 psi	4594633
Methane, 50 %LEL / CO, 100 ppm / 17% O ₂ / bal N ₂	11L/155 psi	4594635
Methane, 50 %LEL / CO, 100 ppm / H ₂ S, 25 ppm / 17% O ₂ / bal N ₂	11L/155 psi	4594636

Draeger Software



Gas-Vision®

Document gas and vapor exposures measured with Draeger instruments equipped with internal data loggers. Quickly and easily determine TWA and STEL exposures. Create graphs and spreadsheets from this data for documentation and reporting purposes with included graphical and tabular report generators. Gas-Vision® is also a complete management tool that will manage the stored exposure data for you. Search previous reports by date, gas measured, or person monitored and get only the information you need including serial numbers and sensor calibration dates for the monitors used.



CC-Vision®

Calibrate, configure, and document all maintenance of your Draeger instruments with CC-Vision® Software. A complete maintenance record can be automatically created and stored when calibrating your Draeger monitor with CC-Vision®. CC-Vision® speeds up your maintenance while drastically reducing the amount of paperwork. This tool is ideal for ISO 9001 or similar quality documentation. All serial numbers, installed sensors, and configurations are automatically stored with CC-Vision's on-board report generation and management system. CC-Vision® also allows the point-and-click setup of your instruments via a "Browser"-type interface, including: alarm levels, menus, and sensor status. Training technicians and users is made much easier and requires less use of complicated written manuals. Save certain configurations to a disk and later download them to your instrument for rapid configuration. CC-Vision® also makes possible the new tamper-proof "end-user" no features mode for more reliable field operations.

ORDER INFORMATION

Gas-Vision® (exposure documentation)	8314034
CC-Vision® (calibrate and configure, single unit version)	6408515

Support Material

Gas Detection Selection Guide

This booklet lists the most common industrial chemicals and whether there is a Dräger-Tube®, CMS-Chip, and/or Dräger-Sensor® available for detecting this substance. The Selection Guide also includes a list of the Draeger Detection products available with measuring ranges and order information. Contact our Customer Service Department for a free copy of this valuable field guide for health and safety professionals.

Dräger-Tube®/CMS Handbook

Everything you wanted to know about Dräger-Tubes® and Dräger-CMS Chips in one book. Measurement Data, Operating Conditions, Reaction Principles, Cross Sensitivity and Range Extension information is given in one handy to use format. The new 13th edition includes color pictures of the Tubes prior to use and with a positive indication. The Tube Handbook also contains general detector tube and chemical information and is a good reference source for any health and safety professional.

Dräger-Sensor® Handbook CD

A complete library of information on the Draeger-Sensors® that are available for use in your microPac, microPac Plus, Pac III, Pac Ex 2, X-am-3000, MiniWarn, or MultiWarn II Monitors. Included is information on environmental conditions, cross-sensitivities, and calibration. It also contains valuable reference information on gas detection and safety topics such as the NIOSH Pocket Guide to Chemical Hazardous.



VOICE® on draeger-safety.com

Determine the best Draeger detection tool for your application with VOICE® software. Search from over 1000 different substances by chemical name, chemical formulas, trade names, CAS Numbers, UN/DOT Numbers, and other synonyms. Once the chemical is located, VOICE will tell you what Draeger devices are available for measurement. Electronic Instruction Sheets for all Dräger-Tubes® are included.

ORDER INFORMATION

Dräger-Tube®/CMS Handbook (13th edition)	9092086
Draeger-Sensor® Handbook CD (1st edition)	4595444

Training Software



EVEN THOUGH DRAEGER EQUIPMENT IS SIMPLE TO OPERATE, THE NEW EQUIPMENT MUST BE UNDERSTOOD BY ALL WHO USE THEM. TO MAKE YOUR JOB EASIER, DRAEGER SAFETY HAS CREATED TRAINING TOOLS IN MS POWER POINT TO AID IN THE IMPLEMENTATION OF YOUR NEW EQUIPMENT. THESE PROGRAMS CONTAIN OPERATING TRAINING MODULES, A COMPETENCY TEST, HELPFUL MAINTENANCE TIPS, AND A GUIDE TO ACCESSORIES AND OPTIONS.

ORDER INFORMATION



Draeger-Tube® /accuro® Pump Training CD	4056835
Draeger CMS Operator Training CD	4056637
Clan-Lab Simultest Kit Operator Training CD	4056657
Civil Defense Simultest Operator Training CD	4056666
Haz-Mat Simultest Operator Training CD	4056561
Pac III Operator Training CD	4530369
Pac Ex 2 Operator Training CD	4530403
MiniWarn Operator Training CD	4552761
Multiwarn II Operator Training CD	4523075
X-am 3000 Operator Training CD	4543701
X-am 7000 Operator Training CD	4552286

Computer Based Training (CBT) Programs

Computer Based Training programs identify the monitor components, alarm signals and display icons. When it comes to operating the monitor, the CBT contains a "virtual instrument" that mimics the exact operation of the gas detector. This is supplemented with video clips that will guide you through performing all of the operator functions of the monitor. At the end of the training course there is a competency test. If a satisfactory grade is not achieved, the program will take the user back through the CBT course. When a passing grade is achieved, a certificate is printed. Training records can be reviewed and are able to be exported to a database for documentation of the training.

ORDER INFORMATION

Multiwarn II Computer Based Training CD	4523082
MiniWarn Computer Based Training CD	4552773
Pac Ex 2 Computer Computer Based Training CD	8317852
Pac III Computer Computer Based Training CD	8317853

Dräger-Training

Let our experienced and knowledgeable trainers teach your staff. We provide basic operation training, service and maintenance levels for your technicians and application safety courses like confined space entry or emergency response.

Call Draeger-Service for more information.

Multi-IMS Monitor



THE DRAEGER MULTI-IMS ANALYZER IS A TRULY PORTABLE ANALYZER DESIGNED TO DETECT, IDENTIFY, AND MEASURE A WIDE VARIETY OF CHEMICAL WARFARE AGENTS (CWA) AND TOXIC INDUSTRIAL CHEMICALS / MATERIALS (TICS / TIMS). THESE GASES AND VAPORS ARE CONTINUOUSLY MEASURED WITH DETECTION LIMITS BELOW THE ESTABLISHED LIMIT VALUES.

The sensing technology is based on Open Loop Ion Mobility Spectrometry complemented by two semi-conductor cells to further refine the signal. The internal sample pump provides extremely quick response and recovery times. The Open Loop design means there are no molecular sieve packs requiring routine replacement. The ionization source does not require a periodic wipe test. The Draeger Multi-IMS is a more reliable and lower maintenance method of measuring chemical warfare agents and toxic industrial chemicals.

The large LCD readout provides identification of the agent and alarm indications. Large pictorial icons appear in the display in an alarm condition. Upon alarm, the icon is accompanied by a "threat scale" of low / medium / high showing the relative dosage measurement. Alarm limits are devised to alert for pre-programmed chemicals and compounds in low concentrations. Both

audible and visual alarms are included on the Multi-IMS. All operations are performed with three large buttons on the face of the analyzer.

The analyzer is small, lightweight and very ergonomic. The robust polymer housing is rugged enough for the most demanding situations and missions. The Multi-IMS meets military specifications for vibration, shock and electro-magnetic interference. An internal datalogger automatically records all measurements for documentation purposes. A simple test using a simulant is performed before each mission to verify functionality.

Applications for the Multi-IMS Monitor include all first responders, medical personnel, emergency managers, and others who are involved with Homeland Security issues.



SPECIFICATIONS

Size	3.9 x 8.7 x 1.8 inch (100 x 220 x 45 mm)
Weight	27 oz. (770 g)
Lower Detection Limits	Nerve Agents: < 0.01 mg / m ³ Blister Agents: < 0.5 mg / m ³ Blood Agents: < 10 mg / m ³

ORDER INFORMATION

Multi-IMS Monitor Kit	8319240
Includes: Analyzer, with Li-Ion battery pack, spare battery pack, battery charger, spare particulate filters, carrying bag, chemical test simulant and instructions in a hard sided transport case.	

Dräger Multi-PID 2



THE DRÄGER MULTI-PID 2 IS THE NEXT GENERATION OF RELIABLE PHOTOIONIZATION DETECTION FOR VOLATILE ORGANIC COMPOUNDS (VOCs). ITS INNOVATIVE PID TECHNOLOGY COMBINES HIGH SENSITIVITY AND ROBUSTNESS WITH SUITABILITY FOR VARIOUS APPLICATIONS LIKE SOIL, WATER OR JAR HEADSPACE SCREENING, LEAK DETECTION AND CONFINED SPACE MEASUREMENTS.

Wide Measuring Range

Equipped with a standard 10.6 eV UV-lamp the Dräger Multi-PID 2 covers a measuring range from 0 to 2,000 ppm. An optional dilution probe extends the measuring range up to 20,000 ppm.

Extensive Gas Library

The built-in gas library holds up to 70 substances. Another 60 substances are identified and can be substituted in the library. For additional, customer specific compounds the response factor can be quantified by Dräger's application laboratory.

Large Display

The backlit display with its large font is easy to read. All information is displayed on one screen. The language setting of the display and menu structure can be selected between English, German, French and Spanish.

Easy To Use

The new ergonomic design makes the Dräger Multi-PID 2 easy to operate, even when wearing heavy duty gloves. The three button menu navigation makes the use of the instrument very simple.

Various Warning Functions

The Dräger Multi-PID 2 is equipped with a loud audible alarm and a LED to warn if dangerous levels (e.g. peak, STEL or TWA) of substances are reached. Additionally, a pump and flow alarm are integrated in the instrument.

Dedicated Calibration Key

Immediate access to the calibration functions is realized with a dedicated calibration key. This allows the user to perform a calibration without entering the password protected main menu.

Built-in Datalogger

An internal datalogger is included in the instrument. The software package "GasVision" allows the easy evaluation of the measured data. The datalogging feature allows the operator to record 15,000 sampling points which can be downloaded to a PC.

Several Charger Options

The off-line charger can charge a second battery pack independent of the Dräger Multi-PID 2. Furthermore, the unit can be charged via a car cigarette lighter adapter.

Worldwide Approvals

Dräger Multi-PID 2 can be used worldwide with these approvals: ATEX, ENTELA NRTL and CE-mark.



Dräger Multi-PID 2: Ideal for detecting VOCs at very low levels.



SPECIFICATIONS

Photoionization Monitor for detecting volatile organic compounds in ambient air

Size (H x W x D, max.)	230 x 110 x 80 mm, width at handle 67 mm; 9" x 4.25" x 3", width at handle 2.6"	
Weight	860 g; 1.9 pounds	
Ambient conditions	Temperature	0 to + 40 °C, + 32 to + 105 °F
	Humidity	0 to 95 %RH, not condensing
Typical battery life	NiCd	8 hours, rechargeable battery
Audible alarm	95 dB (A) at a distance of 30 cm; 1ft.	
Approvals	ATEX	II 2G EEx ib IIC T4; 0 Ta + 40 °C
	ENTELA NRTL	Class I, Div 1, Group A, B, C, D T4
	CE-mark	electromagnetic compatibility (directive 89/336/EEC)

ORDER INFORMATION

Dräger Multi-PID 2*	8317660
Dräger Multi-PID 2 Kit*	4521101
Charger USA, 110 V AC	6405428
Carrying Case	8317664
Calibration Gas (100 ppm isobutylene)	4594642
Calibration Gas Regulator	4594641
Computer Cable Kit	8317667
Spare Battery Pack	8317670
11.7 eV Detector Lamp	6405423
12 V DC Car Adapter	6405421

* Each instrument includes: 10.6 eV detector lamp, rechargeable battery, 17 cm (6.7") reinforced Teflon sample probe, wrist strap, multi-tool for lamp changing, user's manual, laminated user reference card, water/particle filters (10 pcs.)

** Kit includes: Multi-PID 2 Analyzer (8317660) and Charger (6405428)

CMS Analyzer



ACCURATE GAS MEASUREMENTS ARE MADE EASIER WITH THE DRÄGER-CMS®. THIS NEW GENERATION SPOT-CHECK DETECTION DEVICE IS LITERALLY AS EASY AS 1-2-3 TO OPERATE. SIMPLY INSERT ONE OF THE OVER 50 CHEMICAL SPECIFIC CMS CHIPS AND FOLLOW THE INSTRUCTIONS ON THE DISPLAY AS TO WHEN TO MOVE THE SLIDE SWITCH. TWA LEVELS ARE TYPICALLY ANALYZED IN 1-2 MINUTES. UPON COMPLETION OF THIS PROCESS, THE CONCENTRATION IS INDICATED ON THE LCD DISPLAY. EVERY CHIP USES THE EXACT SAME PROCEDURE SO TRAINING IS MINIMAL.

The system is based on Draeger's 60+ years of dry chemical reaction technology used in Dräger-Tubes®, however, the CMS includes a mass flow controller to take a precise air sample and the color change is measured with a photo-optical system eliminating any human subjectivity. Accuracies of +/- 4 to 10% of measured values are achieved for most gases and vapors.

CMS does not require gas calibration. All measurement and calibration information is stored on a bar code on the CMS Chip. An electronic leak check is performed before each measurement so you are assured of accurate indications every time. Operating on 4 "AA" cells, the CMS will deliver about 100 measurements per battery change. An optional remote sampling system makes the CMS an ideal choice for confined space entry applications.

The on-board data-recorder stores up to 50 measurements with the gas/concentration and date/time. The recorder can be set up to record manually or automatically, and previous measurements can be called up on demand.

The CMS is currently used extensively in the petrochemical, transportation, and utilities industries as well as the fire service and government regulatory agencies. Popular applications include TWA screening, confined space entry and emergency response.





Emergency Response Kit



Remote Sampling with Probe

SPECIFICATIONS

Size	4.1 x 8.5 x 2.5 inch (105 x 215 x 65 mm)
Weight	25.6 oz. (730 g)
Approvals	UL: Class I, Division 1, Groups A-D, T4 CSA: Class I, Division 1, Groups A-D, T4 MSHA: Permissible Gas Detector ATEX: EEx ib IIC T4

ORDER INFORMATION

CMS Analyzer	6405300
CMS Analyzer with Remote Sample Pump	8317700
CMS Emergency Response Kit	4055711
CMS Indoor Air Quality Kit	4056455
Remote Sample Pump	6405060
Telescopic Probe	8316530
Sampling Hose, 10 m with Adapter & Float Probe	8317613
Nylon Transport Case	4594631

CMS is available for rental.

Dräger-CMS® Chips



THE CMS CHIP CONSISTS OF 10 MEASUREMENT CAPILLARIES FILLED WITH SUBSTANCE-SPECIFIC REAGENT SYSTEMS. THE GAS TYPE, PART NUMBER AND BATCH NUMBER ARE PRINTED ON THE CHIP. A PRINTED BARCODE ON THE CHIP, READ BY THE ANALYZER OPTICS, CONTAINS INFORMATION ABOUT GAS TYPE, MEASURING RANGE AND MEASURING TIME REQUIRED FOR COMPLETING THE MEASUREMENT. EACH CHIP IS CALIBRATED DURING MANUFACTURING AND IS VALID FOR TWO YEARS.



Chemical Specific Measurements

When you need to know exactly what is there, CMS is the tool to provide those answers. The chemistry is chosen to provide the best results possible. The capillaries of several chips have multiple layers (Yes, even in something that small!) to help reduce cross sensitivity to derive a specific measurement of the targeted chemical.

DRÄGER-CMS® CHIPS



Chemical	Measuring Range	Part No.
Acetic Acid	2.0 - 50.0 ppm	6406330
Acetone	40.0 - 600 ppm	6406470
Ammonia	0.20- 5.0 ppm	6406550
Ammonia	2.0 - 50.0 ppm	6406130
Ammonia	10.0 - 150 ppm	6406020
Ammonia	100 - 2000 ppm	6406570
Benzene	0.20 - 10.0 ppm	6406030
Benzene	0.50 - 10.0 ppm	6406160
Benzene	10.0 - 250 ppm	6406280
Butadiene	1.0 - 25.0 ppm	6406460
Carbon Dioxide	200 - 3,000 ppm	6406190
Carbon Dioxide	1,000 - 25,000 ppm	6406070
Carbon Dioxide	1.0 - 20.0 Vol%	6406210
Carbon Monoxide	5.0 - 150 ppm	6406080
Chlorine	0.20 - 10.0 ppm	6406010
Ethanol	100 - 2,500 ppm	6406370
Ethylene Oxide	0.4 - 5.0 ppm	6406580
Formaldehyde	0.20 - 5.0 ppm	6406540
Hydrochloric Acid	1.0 - 25.0 ppm	6406090
Hydrochloric Acid	20.0 - 500 ppm	6406140
Hydrocyanic Acid	2.0 - 50.0 ppm	6406100
Hydrogen Peroxide	0.20 - 2.0 ppm	6406440
Hydrogen Sulfide	0.20 - 5.0 ppm	6406520
Hydrogen Sulfide	2.0 - 50.0 ppm	6406050
Hydrogen Sulfide	20.0 - 500 ppm	6406150
Hydrogen Sulfide	100 - 2,500 ppm	6406220
Iso-Propanol	40.0 - 1,000 ppm	6406390
Mercaptan	0.25 - 6.0 ppm	6406360
Methanol	20.0 - 500 ppm	6406380
Methylene Chloride	10.0 - 200 ppm	6406510
MTBE	10.0 - 200 ppm	6406530
Nitrogen Dioxide	0.50 - 25.0 ppm	6406120
Nitrous Gases	0.50 - 15.0 ppm	6406060
Nitrous Gases	10.0 - 200 ppm	6406240
Oxygen	1.0 - 25.0 Vol%	6406490
Ozone	25.0 - 1,000 ppb	6406430
Perchloroethylene	5.0 - 150 ppm	6406040
Petroleum Hydrocarbons	20.0 - 500 ppm	6406200
Petroleum Hydrocarbons	100 - 3,000 ppm	6406270
Phosgene	0.05 - 2.0 ppm	6406340
Phosphine	0.10 - 2.50 ppm	6406400
Phosphine	1.0 - 25.0 ppm	6406410
Phosphine	20.0 - 500 ppm	6406420
Phosphine	200 - 5,000 ppm	6406500
Propane	100 - 2,000 ppm	6406310
Styrene	2.0 - 40.0 ppm	6406560
Sulfur Dioxide	0.40 - 10.0 ppm	6406110
Sulfur Dioxide	5.0 - 150 ppm	6406180
Toluene	10.0 - 300 ppm	6406250
Training Chip	Simulation	6406290
Trichloroethylene	5.0 - 100 ppm	6406320
Vinyl Chloride	0.30 - 10.0 ppm	6406170
Vinyl Chloride	10.0 - 250 ppm	6406230
Water Vapor	0.40 - 10.0 mg/L	6406450
Xylene	10.0 - 300 ppm	6406260

Please check our website
www.draeger-safety.com
 for NEW chips.

accuro® Pump



THE WORLD HAS RELIED ON DRÄGER-TUBES® MORE THAN ANY OTHER GAS AND VAPOR MEASUREMENT DEVICE TO TELL THEM WHEN THE AIR IS SAFE TO BREATHE, TO IDENTIFY AN UNKNOWN HAZARD, OR TO CHECK ON PROCESS GASES. FOR MORE THAN 60 YEARS, DRAEGER HAS BEEN THE LEADER IN DETECTOR TUBE TECHNOLOGY WITH MORE ACCURATE MEASUREMENTS, A WIDER RANGE OF GASES AND VAPORS MEASURED, MORE DESIGNS OF TUBES AND MORE ACCESSORIES TO MEET SPECIFIC GAS AND VAPOR MEASUREMENT APPLICATIONS.

Though many Dräger-Tubes® require more than one pump stroke, the sampling time is usually faster than competitive one-stroke tubes. Not only do you get the benefit of quicker analysis, the larger sample volume provides statistically better accuracy. Once the sample is taken, the larger diameter Dräger-Tubes® and well-spaced graduation marks enable distinct and decisive measurement readings.

The cornerstone of the Dräger-Tube® system is the accuro® Pump. It draws a calibrated 100 ml sample of air through the Dräger-Tube® with each stroke. The one-handed operation is simple and allows you to reach places that a piston pump can not go. A built-in stroke counter tells you exactly how many strokes have been taken. The visual end-of-stroke indicator signifies the completion of each pump stroke.



Reagents used in the Dräger-Tubes® are chosen to provide not only the most accurate, but also the most specific results. The use of chemical pre-layers on many tubes (like benzene) removes potentially interfering gases (e.g. aromatic hydrocarbons) so you only measure the targeted chemical, getting only the results you want.



accuro® 2000 Pump

The measuring ranges of various Dräger-Tubes® can be extended to lower levels if additional pump strokes are taken. The accuro® 2000 Pump is an electronic pump that can be set to take up to 199 pump strokes. It is powered with a rechargeable battery that permits up to 500 strokes on a full charge.

Quantimeter® 1000 Pump

The Quantimeter 1000 is an electronic pump with intrinsic safety approval that can be used with Dräger-Tubes®. It can be set to take up to 199 pump strokes for making measurements of very low gas concentrations. The rechargeable battery will provide up to 1000 pump strokes on a fully charged battery.



Soft & Hard Sided accuro® Pump Kits

ORDER INFORMATION

accuro® Pump	
accuro® Pump	6400000
Soft-Sided accuro® Pump Kit	4053473
Hard-Sided accuro® Pump Kit	4056443
Extension Hose, 3 m	6400077
Extension Hose, 10 m	6400078
Extension Hose, 15 m	6400079
Motor Vehicle Exhaust Probe	CH00214
Hot Air Probe	CH00213
Tube Opener 7000	6401200

accuro® Pump, accuro® 2000 Pump and Quantimeter® 1000 Pump are available for rental.



accuro® 2000 Pump

SPECIFICATIONS

accuro® 2000 Pump	
Size	3.5 x 7.5 x 10.5 in (89 x 191 x 267 mm)
Weight	5.3 lbs (2.41 kg)

ORDER INFORMATION

accuro® 2000 Pump Kit	4500200
accuro® Pump (required)	6400000

accuro® Pump, accuro® 2000 Pump and Quantimeter® 1000 Pump are available for rental.



Quantimeter® 1000 Pump

SPECIFICATIONS

Quantimeter® 1000 Pump	
Size	2.5 x 6.5 x 7.5 in (63 x 165 x 191 mm)
Weight	4.3 lbs (1.95 kg)

ORDER INFORMATION

Quantimeter® 1000	4500231
Charger (required)	8316992
Charger Adapter	8318257

accuro® Pump, accuro® 2000 Pump and Quantimeter® 1000 Pump are available for rental.

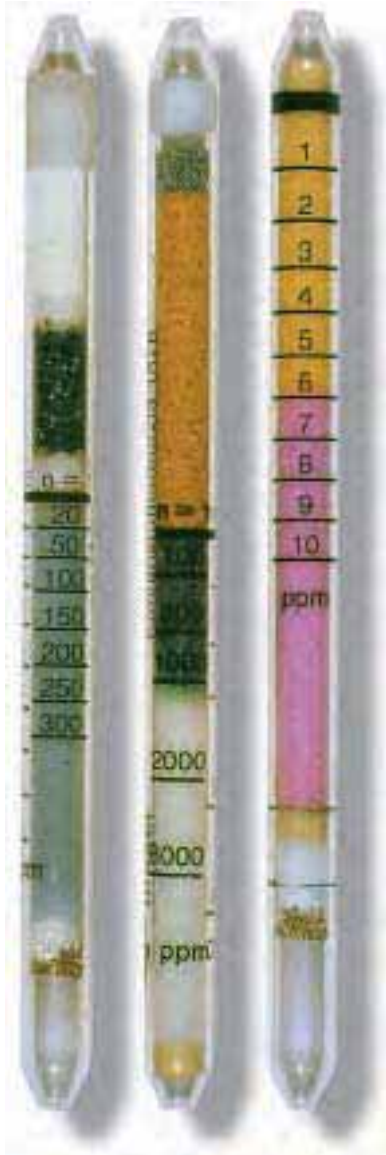
Short Term Dräger-Tubes®



Dräger-Tube®	Measuring Range	Part No.
Acetaldehyde 100/a	100 - 1,000 ppm	6726665
Acetic Acid 5/a	5 - 80 ppm	6722101
Acetone 40/b	40 - 800 ppm	8103381
Acetone 100/b	100 - 12,000 ppm	CH22901
Acid Test	Qualitative	8101121
⁵ Acrylonitrile 0.5/a	0.5 - 20 ppm	6728591
Air Current (Smoke Tube)	---	CH25301
Alcohol 25/a	25 - 5,000 ppm	8101631
Alcohol 100/a	100 - 3,000 ppm	CH29701
Amine Test	Qualitative	8101061
Ammonia 0.25/a	0.25 - 3 ppm	8101711
Ammonia 2/a	2 - 30 ppm	6733231
Ammonia 5/a	5 - 700 ppm	CH20501
Ammonia 5/b	2.5 - 100 ppm	8101941
Ammonia 0.5%/a	0.05 - 10 Vol.%	CH31901
Aniline 0.5/a	0.5 - 10 ppm	6733171
Aniline 5/a	1 - 20 ppm	CH20401
Arsine 0.05/a	0.05 - 60 ppm	CH25001
Benzene 0.5/a	0.5 - 10 ppm	6728561
⁵ Benzene 0.5/c (Specific)	0.5 - 10 ppm	8101841
⁵ Benzene 2/a	2 - 60 ppm	8101231
Benzene 5/b	5 - 50 ppm	6728071
Benzene 15/a	15 - 420 ppm	8101741
Carbon Dioxide 100/a	100 - 3,000 ppm	8101811
Carbon Dioxide 0.1%/a	0.1 - 6 Vol.%	CH23501
Carbon Dioxide 0.5%/a	0.5 - 10 Vol.%	CH31401
Carbon Dioxide 1%/a	1 - 20 Vol.%	CH25101
Carbon Dioxide 5%/A	5 - 60 Vol.%	CH20301
Carbon Disulfide 3/a	3 - 95 ppm	8101891
Carbon Disulfide 30/a	32 - 3,200 ppm	CH23201
Carbon Monoxide 2/a	2 - 300 ppm	6733051
Carbon Monoxide 5/c	5 - 700 ppm	CH25601
Carbon Monoxide 8/a	8 - 150 ppm	CH19701
Carbon Monoxide 10/b	10 - 3,000 ppm	CH20601
Carbon Monoxide 0.3%/b	0.3 - 7 Vol%	CH29901
Carbon Pretube	---	CH24101
Carbon Tetrachloride 0.1/a	0.1-5 ppm	8103501
⁵ Carbon Tetrachloride 1/a	1 - 15 ppm	8101021
Carbon Tetrachloride 5/c	5 - 50 ppm	CH27401

Superscripts designate number of tests per box. All others are ten tests per box.
Bold font indicates SEI certification.

Short Term Dräger-Tubes®



Dräger-Tube®	Measuring Range	Part No.
Chlorine 0.3/b	0.3 - 10 ppm	6728411
Chlorine 0.2/a	0.2 - 30 ppm	CH24301
Chlorine 50/a	50 - 500 ppm	CH20701
Chlorine Dioxide	0.025/a - 3 ppm	8103491
⁵ Chlorobenzene 5/a	5 - 200 ppm	6728761
⁵ Chloroform 2/a	2 - 10 ppm	6728861
Chloroformates 0.2/b	0.2 - 10 ppm	6718601
Chloropicrin 0.1/a	0.1 - 2 ppm	8103421
Chloroprene 5/a	5 - 60 ppm	6718901
⁹ Chromic Acid 0.1/a	0.1 - 0.5 mg/m ³	6728681
Cyanide 2/a	2 - 15 mg/m ³	6728791
Cyanogen Chloride 0.25/a	0.25 - 5 ppm	CH19801
Cyclohexane 100/a	100 - 1,500 ppm	6725201
Cyclohexylamine 2/a	2 - 30 ppm	6728931
Diesel Fuel	25-200mg/m ³	8103475
Diethyl Ether 100/a	100 - 4,000 ppm	6730501
Dimethyl Formamide 10/b	10 - 40 ppm	6718501
⁹ Dimethyl Sulfate 0.005/c	0.005 - 0.05 ppm	6718701
⁵ Dimethyl Sulfide 1/a	1 - 15 ppm	6728451
Epichlorohydrin 5/b	5 - 50 ppm	6728111
Ethyl Acetate 200/a	200 - 3,000 ppm	CH20201
Ethyl Benzene 30/a	30 - 600 ppm	6728381
⁵ Ethylene 0.1/a	0.2 - 5 ppm	8101331
Ethylene 50/a	50 - 2,500 ppm	6728051
Ethylene Glycol 10	10 - 180 mg/m ³	8101351
⁵ Ethylene Oxide 1/a	1 - 15 ppm	6728961
Ethylene Oxide 25/a	25 - 500 ppm	6728241
Ethyl Glycol Acetate 50/a	50 - 700 ppm	6726801
Fluorine 0.1/a	0.1 - 2 ppm	8101491
Formaldehyde Activation Tube-use with HCHO 0.2/a	To extend Measuring Range to 0.04 ppm	8101141
Formaldehyde 0.2/a	0.2 - 5 ppm	6733081
Formaldehyde 2/a	2 - 40 ppm	8101751
Formic Acid 1/a	1 - 15 ppm	6722701
⁸ Halogenated Hydrocarbons 100/a	200 - 2,800 ppm	8101601
Hexane 100/a	50 - 3,000 ppm	6728391
Hydrazine 0.01/a	0.01 - 6 ppm	8103351
Hydrazine 0.25/a	0.1 - 10 ppm	CH31801
Hydrocarbons 0.1%/b	0.1 - 0.8 Vol.% (Butane) 0.5 - 1.3 Vol.% (Propane)	CH26101
Hydrocarbons 2	3 - 23 mg/l	CH25401
Hydrochloric Acid 0.2/a	0.2 - 20 ppm	8103481
Hydrochloric Acid 1/a	1 - 10 ppm	CH29501
Hydrochloric Acid 50/a	50 - 5,000 ppm	6728181
Hydrochloric Acid/Nitric Acid 1/a	1 - 10 ppm HCl 1 - 15 ppm HNO ₃	8101681
Hydrocyanic Acid 2/a	2 - 150 ppm	CH25701
Hydrogen 0.2%/a	0.2 - 2 Vol.%	8101511
Hydrogen Fluoride 0.5/a	0.5 - 90 ppm	8103251
Hydrogen Fluoride 1.5/b	1.5 - 15 ppm	CH30301
Hydrogen Peroxide 0.1/a	0.1 - 3 ppm	8101041

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Short Term Dräger-Tubes®



Dräger-Tube®	Measuring Range	Part No.
Hydrogen Sulfide 0.2/a	0.2 - 5 ppm	8101461
Hydrogen Sulfide 0.2/b	0.2 - 6 ppm	8101991
Hydrogen Sulfide 0.5/a	0.5 - 15 ppm	6728041
Hydrogen Sulfide 1/d	1 - 200 ppm	8101831
Hydrogen Sulfide 2/a	2 - 200 ppm	6728821
Hydrogen Sulfide 2/b	1 - 60 ppm	8101961
Hydrogen Sulfide 5/b	5 - 600 ppm	CH29801
Hydrogen Sulfide 100/a	100 - 2,000 ppm	CH29101
Hydrogen Sulfide 0.2%/A	0.2 - 7 Vol.%	CH28101
Hydrogen Sulfide 2%/a	2 - 40 Vol.%	8101211
Hydrogen Sulfide + Sulfur Dioxide 0.2%/A	0.02 - 7 Vol.%	CH28201
Iodine 0.1/a	0.1 - 6 ppm	8103521
Mercaptan 0.1/a	0.1 - 2.5 ppm	8103281
Mercaptan 0.5/a	0.5 - 5 ppm	6728981
Mercaptan 20/a	20 - 100 ppm	8101871
Mercury 0.1/b	0.05 - 2 mg/m ³	CH23101
Methyl Acrylate 5/a	5 - 200 ppm	6728161
Methyl Bromide 0.2/a	0.2 - 8 ppm	8103391
Methyl Bromide 0.5/a	0.5 - 30 ppm	8101671
⁵ Methyl Bromide 3/a	3 - 100 ppm	6728211
Methyl Bromide 5/b	5 - 50 ppm	CH27301
Methylene Chloride 100/a	100 - 2,000 ppm	6724601
Monostyrene 10/a	10 - 200 ppm	6723301
Monostyrene 10/b	10 - 250 ppm	6733141
Monostyrene 50/a	50 - 400 ppm	CH27601
⁵ Natural Gas Test	Qualitative	CH20001
⁹ Nickel Tetracarbonyl 0.1/a	0.1 - 1 ppm	CH19501
Nitric Acid 1/a	1 - 50 ppm	6728311
Nitrogen Dioxide 0.5/c	0.5 - 25 ppm	CH30001
Nitrogen Dioxide 2/c	2 - 100 ppm	6719101
Nitrous Gases 0.5/a	0.5 - 10 ppm	CH29401
Nitrous Gases 2/a	2 - 100 ppm	CH31001
Nitrous Gases 20/a	20 - 500 ppm	6724001
Nitrous Gases 50/a	50 - 2,000 ppm	8101921
Nitrous Gases 100/c	100 - 5,000 ppm	CH27701
Oil Mist 1/a	1 - 10 mg/m ³	6733031
Oil 10/a-P	25 - 100 micrograms	6728371
Olefins 0.05%/a (Propylene, Butylene)	0.06 - 3.2 Vol.%, 0.04 - 2.4 Vol.%	CH31201
Organic Arsenic Compounds & Arsine	3 mg org. arsenic/m ³	CH26303
Organic Basic Nitrogen Compounds	1 mg/m ³	CH25903
Oxygen 5%/C	5 - 23 Vol.%	8103261
Ozone 0.05/b	0.05 - 1.4 ppm	6733181
Ozone 10/a	10 - 300 ppm	CH21001
Pentane 100/a	100 - 1,500 ppm	6724701
Perchloroethylene 0.1/a	0.1 - 4 ppm	8101551
Perchloroethylene 2/a	2 - 300 ppm	8101501
Perchloroethylene 10/b	10 - 500 ppm	CH30701
Petroleum Hydrocarbons 10/a	10 - 300 ppm	8101691
Petroleum Hydrocarbons 100/a	100 - 2,500 ppm	6730201

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Short Term Dräger-Tubes®



Dräger-Tube®	Measuring Range	Part No.
Phenol 1/b	1 - 20 ppm	8101641
Phosgene 0.02/a	0.02 - 1 ppm	8101521
Phosgene 0.25/c	0.25 - 15 ppm	CH28301
Phosphine 0.01/a	0.01 - 1.0 ppm	8101611
Phosphine 0.1/a	0.1 - 4 ppm	CH31101
Phosphine 0.1/b (in acetylene)	0.1 - 15 ppm	8103341
Phosphine 25/A	25 - 10,000 ppm	8101621
Phosphine 50/a	15 - 1,000 ppm	CH21201
Phosphoric Acid Esters 0.05/a	0.05 ppm	6728461
Polytest	Qualitative	CH28401
Pyridine 5/A	5 ppm	6728651
Smoke Tube		CH25301
Sulfur Dioxide 0.1/a	0.1 - 3 ppm	6727101
Sulfur Dioxide 0.5/a	0.5 - 25 ppm	6728491
Sulfur Dioxide 1/a	1 - 25 ppm	CH31701
Sulfur Dioxide 20/a	20 - 2,000 ppm	CH24201
Sulfur Dioxide 50/b	50 - 8,000 ppm	8101531
⁹ Sulfuric Acid 1/a	1 - 5 mg/m ³	6728781
⁵ Sulfuryl Fluoride 1/a	1 - 5 ppm	8103471
⁵ Tetrahydrothiophene 1/b	1 - 10 ppm	8101341
Thioether	1 mg/m ³	CH25803
Toluene 5/b	5 - 300 ppm	8101661
Toluene 50/a	50 - 400 ppm	8101701
Toluene 100/a	100 - 1,800 ppm	8101731
⁹ Toluene Diisocyanate 0.02/A	0.02 - 0.2 ppm	6724501
⁵ Trichloroethane 50/d	50 - 600 ppm	CH21101
Trichloroethylene 2/a	2 - 250 ppm	6728541
Trichloroethylene 10/a	50 - 2,000 ppm	CH24401
Triethylamine 5/a	5 - 60 ppm	6718401
Vinyl Chloride 0.5/b	0.5 - 30 ppm	8101721
Vinyl Chloride 1/a	1 - 50 ppm	6728031
Vinyl Chloride 100/a	100 - 3,000 ppm	CH19601
Water Vapor 0.1	1 - 40 mg/l	CH23401
Water Vapor 0.1/a	0.05 - 1 mg/l	8101321
Water Vapor 1/b	1 - 40 mg/l	8101781
Water Vapor 3/a	3 - 60 lbs/mmcf	8103031
Xylene 10/a	10 - 400 ppm	6733161

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Emergency Response Kits



CMS Emergency Response Kit

CMS Emergency Response Kit

Put the simplicity of the CMS to work for you in your emergency response procedures. The CMS Emergency Response Kit contains the CMS Analyzer, the appropriate accessories, and a selection of 10 different Chips for response to HazMat or other situations.

Put the capability of several gas detection monitors in your hands without all of the worries. The CMS is as easy to use as 1-2-3, all chips use the exact same procedure. The Chips never need calibration, and the Analyzer does not require battery charging. All of the needed accessories are placed in one rugged carrying case, ready to go at a moments notice.

Use our standard selection of Chips, or create your own Emergency Response Kit selecting from the over 50 CMS Chips currently available.

GASES MEASURED

Ammonia, Carbon Dioxide, Carbon Monoxide, Chlorine, Hydrochloric Acid, Hydrogen Sulfide, Nitrous Gases, Perchloroethylene, Petroleum Hydrocarbons, and Toluene.

ORDER INFORMATION

CMS Emergency Response Kit	4055711
CMS Emergency Response Kit (without Chips)	4055976

Clan Lab Simultest Kit

The illegal manufacture of methamphetamine is a serious problem in North America. Draeger has developed a Simultest Set with detector tubes that quickly confirm the presence of chemicals commonly associated with three principal methods of methamphetamine production. This allows law enforcement and first responder personnel to make fast decisions on the need for respiratory protection.

The Clan Lab Simultest Kit includes the accuro® Pump, Test Set Adapter and Opener, quick reference laminated instruction sheet and 5 Clan Lab Simultest Sets in a Pelican Case.

GASES MEASURED

Ammonia, Hydrochloric Acid, Iodine, Phosgene and Phosphine

ORDER INFORMATION

Clan Lab Simultest Kit	4056562
Clan Lab Simultaneous Test Set	8103310



Clan Lab Simultest Kit

HazMat Simultest Kit

Designed primarily for the municipal fire service and other emergency responders, this kit quickly identifies and quantifies a wide range of chemical substances in less than 5 minutes using the Draeger Simultest Sets. The HazMat Simultest Kit includes three Simultest Sets for measuring 15 different Organic and Inorganic chemicals and/or chemical families. Broad scale measurement and identification is as easy as using Set I, II and III.

The HazMat Simultest Kit comes complete with an accuro® Pump, 10 Simultest Sets, Test Set Adapter and Tube Openers, full color laminated instruction sheets, and an Air Current Kit together in a rugged Pelican case.

GASES MEASURED

Acid Gases, Basic Gases, Carbon Monoxide, Hydrocyanic Acid, Nitrous Gases, Carbon Dioxide, Chlorine, Hydrogen Sulfide, Phosgene, Sulfur Dioxide, Aliphatics, Aromatics, Petroleum Hydrocarbons, Ketones and Chlorinated Hydrocarbons

ORDER INFORMATION

HazMat Simultest Kit	4056098
HazMat Simultest Kit (without accuro® Pump)	4056447
Simultaneous Test Set I (Inorganic Gases)	8101735
Simultaneous Test Set II (Inorganic Gases)	8101736
Simultaneous Test Set III (Organic Vapors)	8101770



HazMat Simultest Kit

Civil Defense Simultest (CDS) Kit

Are you prepared to respond to a terrorist attack involving the use of chemical weapons? In today's world, immediate and accurate detection of toxic chemicals is crucial. The Draeger CDS Kit uses specially developed Draeger-Tubes® (the same tubes used by NATO forces) in a quick and easy to use kit. Two Civil Defense Simultest Sets measure a wide range of chemical substances including nerve, blood, lung, and blister agents.

Dräger-Tubes® have been proven by Aberdeen Proving Grounds to be more accurate, more specific and more reliable than PID and FID devices in detecting chemical warfare agents. The CDS Kit requires no calibration, no battery charges or changes, and is extremely simple to use.

GASES MEASURED

Chlorine, Hydrocyanic Acid, Phosgene, Cyanogen Chloride, Organic Arsenic Compounds and Arsine (e.g. Lewisite), Nerve Agents (G agents and VX) and Blister Agents (Mustard and other Organic Basic Nitrogen Compounds).

ORDER INFORMATION

Civil Defense Simultest Kit (w/ accuro® Pump)	6400565S
Civil Defense Simultest Kit (w/ Quantimeter®)	4056570
Civil Defense / HazMat Simultest Kit (w/ accuro® Pump)	4056665
Civil Defense / HazMat Simultest Kit (w/ Quantimeter®)	4056528
Civil Defense Simultest, Set I	8103140
Civil Defense Simultest, Set V	8103200
Training Set for Civil Defense Simultest Set I	8103230
Training Set for Civil Defense Simultest Set V	8103240



Civil Defense Simultest (CDS) Kit
with Quantimeter



TWA Measurements

Diffusion (Passive Sampling) Tubes

Get on-site measurements of 8-hour exposures with the Draeger Diffusion Tubes. This gas and vapor measurement technique provides a quick, simple, and on-site means to determine employee exposures.

Unlike Short-Term detector tubes that require a pump for operation, Diffusion Tubes rely on natural movement of the gases and vapors to enter the tube and cause a color change. Simply read the indication on the graduated scale (ppm x hours) and divide by the amount of hours the Diffusion Tube has been in use for a TWA measurement. No waiting, no analysis fees, no laboratory services, no turn-around time; just on the spot measurement. The Tube Holder allows you to place the Diffusion Tube in the breathing zone of the people being monitored or in the suspected areas.



Diffusion (Passive Sampling) Tubes

ORDER INFORMATION

DraegerTube®	Range in Absolute Units	Part No.
Acetic Acid 10/a-D	10 - 200 ppm x h	8101071
Ammonia 20/a-D	20 - 1,500 ppm x h	8101301
Butadiene 10/a-D	10 - 300 ppm x h	8101161
Carbon Dioxide 500/a-D	500 - 20,000 ppm x h	8101381
Carbon Dioxide 1%/a-D	1 - 30 Vol.% x h	8101051
Carbon Monoxide 50/a-D	50 - 600 ppm x h	6733191
Ethanol 1000/a-D	1,000 - 25,000 ppm x h	8101151
Hydrochloric Acid 10/a-D	10 - 200 ppm x h	6733111
Hydrocyanic Acid 20/a-D	20 - 200 ppm x h	6733221
Hydrogen Sulfide 10/a-D	10 - 300 ppm x h	6733091
Nitrogen Dioxide 10/a-D	10 - 200 ppm x h	8101111
Perchloroethylene 200/a-D	200 - 1,500 ppm x h	8101401
Sulfur Dioxide 5/a-D	5 - 150 ppm x h	8101091
Toluene 100/a-D	100 - 3,000 ppm x h	8101421
Trichloroethylene 200/a-D	200 - 1,000 ppm x h	8101441
Diffusion Tube Holder (Pkg 3)		6733014

Bio-Check F Badges

The Bio-Check F detects formaldehyde in the range of 0.02 to 0.7 ppm without mechanical or electronic devices. An enzyme reaction changes the color of the indication layer and is evaluated by a color comparison chart that is included with the badge. The determination of indoor air exposure levels can be accomplished in only two hours. The Bio-Check is small enough to be worn on a person's lapel, or set in a room of concern for measurement of formaldehyde at these very low levels.

ORDER INFORMATION

Bio-Check F Badge

6400235

Bio-Check F Badges



Breathing Air Quality Measurements



Aerotest Kit

Aerotest Kits

Dräger-Tubes® are widely used to measure the quality of compressed breathing air, the purity of medical gases, contaminants in process gases, and impurities in technical gases. The Aerotest Kits facilitate these types of measurements by conditioning the pressurized sample to a level at which the Dräger-Tubes® can accurately operate.

The Aerotest Kits are designed to measure the quality of breathing air. The kits come complete with Dräger-Tubes® for measuring CO, CO₂, oil and water vapor. The low-pressure (alpha) version may be plugged directly into compressed airlines, while the high-pressure (HP) version can be connected directly to SCBA cylinders or compressors. The Multi-Test is designed for medical gases and can measure up seven different substances simultaneously; CO, CO₂, H₂O, Oil, SO₂, H₂S, & NO_x

ORDER INFORMATION

Aerotest Simultan Alpha (< 175 psi)	4056747
Aerotest Simultan HP (< 4500 psi)	4055986
Aerotest Multi-Test (< 75 psi)	4056181



Zephyr-Air Sample Kit

Zephyr-Air Sample Kit

The Draeger Zephyr Air Sample Kits enable you to get a complete National Institute of Standards and Technology (NIST) traceable laboratory analysis done to your compressed breathing air samples.

The Zephyr-Air Kit comes complete. Simply hook it up to your compressor and fill up the sampling container with the air to be analyzed. Place the sample container in the pre-postage paid container and send it to the Draeger laboratory for analysis. Advanced gas chromatography, gravimetric analysis, and a thin film hygrometer are used to precisely analyze the sample. An official certification document of the results from our accredited laboratory under the American Association of Laboratory Accreditation (A2LA) is sent within days.

ORDER INFORMATION

Zephyr-Air Compressed Air Sample Kit	4056121
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Other chemical analyses are possible with the Zephyr-Air Kits. Contact Draeger Safety or your nearest authorized dealer for more details.

Air Current Measurement



Flow-Check

Flow-Check

Air current directions and flow rates are very important to gas detection. The visible plume of non-toxic, non-reactive smoke generated by the Flow-Check allows you to actually see the direction, dispersion, and relative speed of the air currents in an area. Knowing how the air is moving, you are better prepared to accurately measure gases. This smoke can also be used to detect air leaks around doorways or other fixtures.

Flow-Check is also popular for checking the effectiveness of ventilation ducts, pressurized rooms, fume hoods, vapor extractors and other air movement equipment. These functions assist those in the HVAC, hospital laboratory, and manufacturing industry sectors.

SPECIFICATIONS

Size	approx 11.8 x 7.9 x 2.8 in (300 x 200 x 70 mm)
Weight	17.6 oz. (500 g)

ORDER INFORMATION

Flow Check Device	6400761
Battery Charger, 110 VAC, Required for operation	8316993
Replacement Smoke Ampoules (3/pkg)	6400812



Smoke Tubes

Smoke Tubes

Draeger Smoke Tubes have been very popular in the HVAC and mining industries for many years. The reagent inside the smoke tube produces a visible aerosol plume when in contact with atmospheric humidity. A simple squeeze bulb pushes air through the tube to propel the smoke into the ambient air. Even the most gentle air currents are made visible.

ORDER INFORMATION

Air Current Tube Kit	CH00216
Smoke Tubes	CH25301

DrägerService



LET DRAEGER-SERVICE PROVIDE EXPERT CARE FOR YOUR RESPIRATORY PROTECTION EQUIPMENT. DRAEGER HAS STRATEGICALLY LOCATED SERVICE CENTERS ACROSS NORTH AMERICA IN PITTSBURGH PA, LOS ANGELES CA, HOUSTON TX, MISSISSAUGA ON, SUDBURY ON, MONTREAL QU, EDMONTON AB, AND QUERETARO, MEXICO. SERVICES ARE AVAILABLE AT THESE LOCATIONS OR ON-SITE.

DraegerService supports with a full range of technical services including gas calibration, maintenance, upgrades and repairs. Services can be arranged on an as needed basis, or through maintenance agreements and service contracts. Our all-encompassing Total Care Packages provide all services, including loaner units when needed.

Training

The best safety equipment is only as good as the knowledge of those who use it. Let Draeger train your staff on the proper use and maintenance of all of our products. We offer both operator and technician level courses at our service facilities or at your site. Students are provided with the appropriate training materials such as posters, videos, CDs, books and/or schematics depending on the training given. All courses are available with certification.

Rental

For many applications and situations, purchasing gas detection or respiratory protection equipment may not be the most efficient or cost-effective solution. The complete range of Draeger Safety products are available for rental. We offer competitive pricing; convenient daily, weekly or monthly terms; expertly maintained equipment; and Rent-to-Own options.

Support

Our worldwide experience obtained from many different industries, applications, and environmental conditions are available to all Draeger customers. The Respiratory Protection Product Management staff in Pittsburgh can assist you through the challenges and questions you may encounter in your application and recommend the proper equipment for the job at hand.

Dräger Alcotest



DRIVERS UNDER THE INFLUENCE OF ALCOHOL REMAIN ONE OF THE GREATEST RISKS ON OUR HIGHWAYS AND ROADS. FOR THE POLICE, THESE DRIVERS REPRESENT A MYRIAD OF COUNTLESS STRESSFUL SITUATIONS. OFTEN LAW ENFORCEMENT OFFICERS NEED TO TEST FOR BLOOD ALCOHOL LEVELS IN DRIVING SUSPECTS THAT ARE AGGRESSIVE, INSECURE AND EXHIBIT UNPREDICTABLE BEHAVIOR. IN AS SITUATION LIKE THIS, IT IS GOOD TO KNOW THAT THE POLICE OFFICER CAN COUNT ON THE DRAEGER ALCOTEST® TO PROVIDE THEM WITH QUICK, ACCURATE, EASY AND SIMPLE ALCOHOL READINGS, REPRESENTING BLOOD ALCOHOL LEVELS OF THE SUSPECT.



Dräger Alcotest 6510

The Alcotest® 6510 and 6810 are based on decades of chemical experience and the most modern technology. The alcohol testing units, that are virtually small enough to fit into a pocket, provide precise, quick and conclusive proof that alcohol is present to eliminate risk and prevent danger while guaranteeing the greatest possible degree of safety on our roads.

Safe and Easy to Use

The large, backlit, graphic display, rapid start-up time, and intuitive, hygienic operation make the instrument easy to use. The operator can obtain results safely and quickly with minimal distractions. All measurement functions are controlled by a single key, while menu navigation is controlled by two menu keys

Quick and Precise Analysis

The newly developed 1/4" DraegerSensor® technology is alcohol-specific and ensures accurate and precise measurement results under extreme conditions. Even at high concentrations, fast, pneumatic components and short reaction times of the sensor ensure that the measurement result displays quickly. Evidential measurement quality exceeds NHTSA's Model Specifications for Evidential Breath Testers.

Practical Design

Compact dimensions and ergonomic design makes the instrument equally easy to use for right- and left-handed people. The separation of the grip area and the mouthpiece ensures a safe distance between the hand of the operator and the mouth of the person to be tested.

"Slide 'n Click" Mouthpiece

The individually-wrapped mouthpiece is designed to fit quickly, hygienically, and securely even in poor light conditions. An integrated ejector tab makes mouthpiece removal effortless and sanitary. An air outlet—which cannot be obstructed—prevents any manipulation when the breath sample is given. The mouthpiece features a built-in spit trap and an orientation that protect the operator from a subject's direct exhalation.

Battery Life Advantages

More than 1500 breath-alcohol tests can be conducted with two AA batteries. Users select between standard alkaline or optional NiMH rechargeable batteries. The optional battery charger cable allows NiMH batteries to be recharged while inside the instrument.

Police, industry, hospitals and bar owners have been using Alcotest tubes for over 50 years for fast and clear analysis for blood alcohol levels. The measurement procedure is simple, fast and painless. You simply blow expired air through a mouthpiece and detector tube into a bag and the results are immediately available and accurate.



Tube for testing breath alcohol concentration simple, fast and reliable prompt result approved by national authorities three or ten tubes in a practical, stable box.

SPECIFICATIONS

NHTSA Approved	Conforming Products List for Evidential Breath Measurement Devices
Measurement Principle	Electrochemical alcohol specific DraegerSensor 1/4" technology
Measurement Range	0 to 0.500% BAC
Accuracy	±0.005% BAC of measured value or ±5% of measured value, whichever is greater
Ready for Use	Approximately 6 seconds after switch-on
Sampling	End of Breath, Minimum Volume, Manual, Passive
Mouthpiece Connection	Slide 'n click mouthpiece attachment for either right- or left-handed operation
Mouthpiece	Hygienically, individually packaged, with tamper-proof air outlet and integrated mouthpiece ejector tab
Display	Graphic backlit LCD display; 128 x 64 pixels; 41mm x 24mm / 1.6" x 1.0"
Operating Temperature	-5°C to 50°C; 23°F to 122°F
Storage Temperature	-40°C to 65°C; -40°F to 149°F
Humidity	10% to 100%RH
Ambient Pressure	600hPa to 1400 hPa; 17.7 in. to 41.3 in. Hg
Housing	Impact resistant ABS/PC
Dimensions	140 x 80 x 35 mm; 5.5" x 2.8" x 1.25"
Weight (with batteries)	Approx. 195 g; 0.43 lbs.; 6.88 oz.
Visual Signal	3-color LED (green, yellow, red) to support displayed messages and warnings
Audible Signal	Signaling to support messages and warnings
Data Storage Draeger Alcotest™ 6510	Last 10 tests
Data Storage	Last 250 tests (includes dates and times)
Power Supply	2 x 1.5V alkaline (AA) batteries; charge status displayed More than 1500 measurements on one set of batteries
Operating Concept	Measurements can be performed with one button; Menu navigation with two additional buttons
Instrument Configuration	Menu-guided configuration of instrument settings (PIN required)
Languages	4 standard (English, German, French, Spanish); 1 programmable
Advanced Features	Clock, data download via PC, battery charging, optical printer interface, test reason code, device info screens

ORDER INFORMATION

Draeger Alcotest™ 6510 (measuring instrument, 3 mouthpieces, 2 alkaline AA batteries, wrist strap, operator card in plastic case)	83 17 900
Draeger Alcotest™ 6810 (measuring instrument, 3 mouthpieces, 2 alkaline AA batteries, wrist strap, operator card in plastic case)	83 18 570
Mouthpieces (pack of 100)	68 10 690
Leather pouch (black with belt attachment)	83 17 911
Leather pouch (yellow without belt attachment; instrument can be operated in the pouch; compartment holds 4 to 5 mouthpieces)	83 17 931
AlcoVIEW (PC software for communication with the Alcotest™ 6510 and Alcotest™ 6810)	83 17 489
Rechargeable batteries (2 AA NiMH)	83 18 565
Battery Charger (for charging NiMH batteries inside Alcotest™ 6810)	83 16 991
PC communication cable (required for AlcoVIEW)	83 17 573
reference card, water/particle filters (10 pcs.)	

Breathing Gas Systems



THIS DIVISION OF DRAEGER PROVIDES SEVERAL DIVERSE PRODUCTS AND TAILOR MADE SYSTEMS RELATED TO RESPIRATORY PROTECTION EQUIPMENT.



Breathing Air Compressors

Fill your SCBA cylinders with our breathing air compressor systems. We offer a range of solutions from portable units to complete fill stations including high-pressure compressors, fragmentation shields, cascade cylinder banks, and control panels. Our 7 cfm and 10 cfm portable compressors are especially popular with small fire stations and dive centers. Our gas and diesel engine models offer air filling capabilities where access to an electrical power supply is limited.



Vehicle Filter Systems

The Draeger vehicle filtration system will protect its occupants from the outside atmosphere by filtering the air and maintaining a positive pressure inside the passenger cabin. Where the Draeger C420 PAPR respirators provide respiratory protection to a single individual, our Vehicle Filter Systems protect up to several occupants inside vehicle. The air systems afford maximum protection for vehicle operators by being independent of the ambient air. Our vehicle filter systems provide protection against wide range of contaminants from toxic to chemical warfare substances.



Training Galleries

Draeger Safety Inc.'s training systems provide ideal conditions for breathing apparatus users to experience physical and mental stress common to emergency situations in controlled environment.

Training galleries can be supplied as fixed or mobile systems and incorporate obstacles and distracting effects such as smoke, noise and lights. The gallery is set up on a grid system and can be easily reconfigured so the training course is different each time. A control section allows constant monitoring of the trainees' via video cameras and intercom systems.

Flash Over Training containers allow fire fighters to experience the power of an actual flash over under controlled circumstances.

Respiratory Protection



Piccola® Filtering Respirators

With an exclusive multi-layer filtering design, the Piccola® provides the best particulate filtration efficiency with the lowest breathing resistance in a filtering face mask. Draeger's patented SynSafe® material uses both mechanical and electrostatic filtration principles for the ultimate filtering efficiency. It is extremely lightweight and comfortable to wear with a soft humidity resistant inner lining. The foldable mask design allows for easy storage in your pocket and repeated use through the workday. Piccola® masks are available in a NIOSH approved N95 and R95 types, with or without exhalation valves.



X-plore® Masks and Filters

The new Draeger X-plore® Series masks set a new benchmark in fit and comfort in respiratory protection. The innovative X-guided strap system secures the mask evenly over the face providing an excellent fit while remaining very comfortable. Three sizes (S, M, L) of masks and a flexible nose seal ensure a proper fit for every type of face. The X-plore® comes in limited use (3300) and re-useable (3500) half-mask styles. The full face (5500) mask provides a higher level of protection when needed. To meet a wide range of industrial applications, Draeger offers a full line of NIOSH approved cartridges and filters with their exclusive two-point bayonet connector.



DefendAir® Escape Hood

Be prepared against a possible terrorist attack by using the same filter technology as the military. The DefendAir® is designed for over 15 minutes of protection from toxic gases including nerve and blood agents, tear gas, radioactive nuclides and biological agents. The mask is quick and easy to don (less than 10 seconds), and can be worn with prescriptive eyewear. With the integrated half mask, the user can breathe and speak normally to provide life-saving instructions to those around them. Also available, the Parat C Hood, a fire escape hood that filters the by-products of combustion such as carbon monoxide.



Industrial Supplied Air Respirators

Hard work in an industrial environment requires rugged and reliable equipment. The Draeger line of supplied air respirators confidently meets this challenge. Our modular airline respirator systems are based on the Panorama Nova mask that provides superior fit and comfort. The Type C Draeger SAR and constant flow PentAir® respirators are for working extended periods in non-IDLH environments. The Draeger ALE Lite respirators come with 5 or 10-minute egress cylinders for working in IDLH situations.



Fire Fighting Breathing Apparatus

Draeger is the world's leader in supplying SCBA to the fire service. This is because we design the SCBA with the fire fighter in mind, delivering the most safety and comfort while withstanding the most demanding circumstances. Using ergonomic back plates and fully adjustable harness system, the AirBoss® Evolution Plus and AirBoss® PSS-100 Plus provide exceptional safety, maneuverability, and comfort for fire fighters. This NIOSH / NFPA 1981 - 2002 edition SCBA's incorporate the PRISM®, a wireless in-mask pressure indicating system that is automatically activated when the cylinder is turned on, and the Sentinel II, an electronic monitoring system that provides cylinder pressure, time to low pressure alarm and other information to the wearer.



BG-4 Closed Circuit Breathing Apparatus (CCBA)

The Draeger BG-4 is a NIOSH & MSHA Approved Closed Circuit Breathing Apparatus provides superior respiratory protection in IDLH environments for up to 4 hours! Conventional SCBA's are limited to just one hour or less and do not provide the extended time that is required in critical operations like: search and rescue, hazardous materials clean-up, domestic preparedness, or mine and tunnel rescue. The low profile of the BG-4 makes it easy to use under protective clothing. Every BG-4 is equipped with the Sentinel, which is an electronic alarm; test and pressure display module that provides continuous information to the user.



DRAEGER RESPIRATORY PROTECTION
PIONEERING SOLUTIONS

Drägersafety

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Pioneering Solutions For . . .



EMPLOYEE EXPOSURE

Protecting employees from hazards like dust, gas and vapors in the work environment is a high priority for all health and safety professionals. Draeger's extensive respiratory program includes air purifying respirators from the Piccola disposable half mask and Picco20 reusable half mask, through to a full range of X-plore® half mask and full face respirators with cartridges to meet a wide range of working conditions.

INDUSTRIAL RESPIRATORY PROTECTION

In some industrial working applications, higher-level exposure hazards cannot be avoided. The ability to provide protection to these workers is a high priority for health and safety professionals. Draeger offers a range of supplied air respirators and SCBAs. The Draeger SAR and ALE Lite respirators and ProAir® SCBA lead the way for protecting the workers in hazardous environments.



CONFINED SPACE ENTRY

Special laws have been enacted to deal with one of the most dangerous environments in today's work place. Confined spaces are found in every type of industry, from utilities to agriculture, from food processing to petrochemical and from aerospace to mining. Because these areas must be entered on a routine basis, Draeger's Airline Supply Systems, ALE Airline Egress Respirator Systems and QuickAir™ Emergency Escape Breathing Apparatus play an important role in protecting workers to ensure that a confined space is a safe place to enter and work.

FIRE FIGHTING

Being in one of the most demanding, challenging and dangerous professions, fire fighters require the highest levels of personal protection. Draeger's SCBA is designed for Fire Fighting, HazMat and Search and Rescue applications. With the most up to date self-contained breathing apparatus systems available, Draeger's AirBoss® PSS100, AirBoss® Evolution, and BG4 SCBAs are answering the call.



EMERGENCY ESCAPE

Normally safe areas can become hazardous when an accident occurs. People working in these areas need a quick and easy to use respirator to escape from possible dangers and reach a safe area. Draeger provides filter (Parat C), supplied air (QuickAir™) and oxygen generating (Oxy K) escape devices that allow you to breathe safely while getting out of harms way.

DOMESTIC PREPAREDNESS

In today's environment we need to be aware, and in some cases prepared against possible terrorist attack. Draeger's provides a full range of respiratory protection no matter what is your assigned mission. The DefendAir® filter escape hoods, the Kareta M military grade mask, the added protection of the C420 PAPR, the highest level protection AirBoss® SCBA, and BG 4 closed circuit breathing apparatus for extended operations all meet the challenge of today's first responders.

X-plore®



DRAEGER SAFETY, INC. INTRODUCES THE NEW X-PLORE® SERIES AIR PURIFYING RESPIRATORS. DRAEGER WORKED WITH INDUSTRIAL USERS THROUGHOUT THE WORLD TO DEVELOP A BETTER RESPIRATORY PROTECTION PRODUCT FOR USE IN YOUR EVERYDAY WORKPLACE. OUR GOAL WAS TO DEVELOP A LINE OF PRODUCTS THAT FIT THE FACES OF THE WORLD AND EXCELS IN COMFORT. THE RESULTS ARE DRAMATIC.

ORDER INFORMATION

Limited Use Half Mask

X-plore® 3300, Small	R55331
X-plore® 3300, Medium	R55330
X-plore® 3300, Large	R55332

Reusable Half Mask

X-plore® 3500, Small	R55351
X-plore® 3500, Medium	R55350
X-plore® 3500, Large	R55352

Full Face Mask

X-plore® 5500, Three Sizes in One	R55270
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Particulate Filters

P100 Cartridge	6738012
N95 Filter Pads	6738020
R95 Filter Pads	6738021
Filter Pad Holder, Base	6738038
Filter Pad Holder, Cover	6738039

Gas and Vapor Cartridges

Organic Vapors (OV)	6738024
Organic Vapor/Acid Gases (OV/(HC/CL/SD)/FM/CD/HF)	6738025
Acid Gases (HC/CL/SD)	6738026
Ammonia/Methylamine (AM/MA)	6738027

Combination Cartridges

Organic Vapors (OV)/P100	6738034
Organic Vapor/Acid Gases (OV/(HC/CL/SD)/FM/CD/HF/P100)	6738035
Acid Gases (HC/CL/SD)/P100	6738036
Ammonia/Methylamine (AM/MA)/P100	6738037



X-plore® 3300



X-plore® 3500



X-plore® 5500



Experience extreme comfort with the new Draeger X-plore® 3500 reusable half mask cartridge respirator. The specially developed Draeger-Flex® mask material is hypo-allergenic, giving you a soft and comfortable seal without skin irritation. The Flexi-Fit® harness system is extremely comfortable when wearing head protection and will fit underneath a hard hat. An innovative X-guided strap system ensures an even distribution of the mask seal against the face giving you the ultimate comfort without unwanted pressure.

The exclusive triple sealing edge found on the Draeger X-plore® 5500 full-face mask means that there are actually three sizes in this one mask. It makes selection and use of a respirator much easier since any one can wear the same size mask. The compact low-profile design ensures a wide, unobstructed view.

The twin cartridges are connected to the mask in a position that allows the greatest range of vision and user comfort without interfering with head movements. To meet a wide range of industrial applications, Draeger offers a full line of NIOSH approved cartridges and filters with an exclusive two-point bayonet connector.

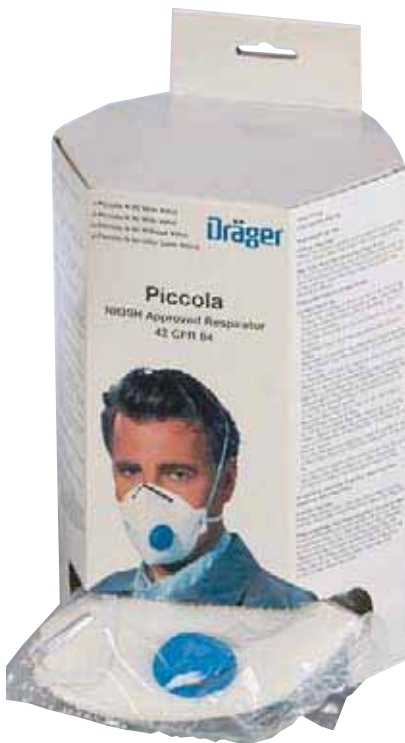
The new Draeger X-plore® 3300 is a limited use half mask respirator. It combines all of the features of the X-plore® 3500 while constructed of a soft and durable thermoplastic elastomer (TPE) that provides a comfortable and secure seal for your respiratory protection.

X-Plore® 3500 Features

- Flexible Nose Seal
- New Draeger Flex Material
- Compact low-profile design
- 3 sizes (S, M, L)
- Dräger Flexi-Fit® Head Harness
- "Slide-down" System
- Innovative guided strap system
- Safe and easy bayonet connection



Piccola



THE PICCOLA DISPOSABLE FILTERING FACEPIECE IS A LEADER IN COMFORT, FIT, AND PROTECTION. THE PATENTED SYNSAFE® FILTER MEDIA COMBINES BOTH MECHANICAL AND ELECTROSTATIC FILTERING FOR AN EXTENDED USEABLE DURATION AND BETTER PROTECTION AGAINST DUSTS AND MISTS WHILE THE LAYERED FILTER MEDIA PROVIDES AN INITIAL BARRIER FOR PARTICULATES. THE SOFT INNER LINING IS HUMIDITY RESISTANT TO PROVIDE THE USER WITH EXTREME COMFORT, EVEN WHEN PERSPIRING AND BREATHING HARD.

The Piccola is lightweight and fits the shape of the face. An adjustable nose bridge allows you to custom seal around the nose area. It fits optimally, even when you are wearing protective eyewear. The head harness is a fabric-covered elastic that will not tangle in your hair.

The masks are individually and hygienically packed in a plastic bag and are supplied in a handy dispenser box containing 20 masks. The low profile of the folded design makes it easy to carry with you throughout the day, just tuck it in your shirt pocket.

The Piccola is NIOSH approved in N95 and R95 levels. Inhalation breathing resistance is extremely low and an optional exhalation valve provides even more breathing comfort.

A special version of the Piccola is the Piccodor, it provides N95 protection and contains an activated carbon layer for nuisance level OV/AG/AM relief for concentrations below PELs/TLVs.

ORDER INFORMATION

Piccola masks are provided in boxes of 20

Piccola N95	6737620
Piccola N95 w/ Exhalation Valve	6737621
Piccola R95 w/ Exhalation Valve	6737622
Piccodor N95 w/ Nuisance Odor Control and Exhalation Valve	6737623

Picco20



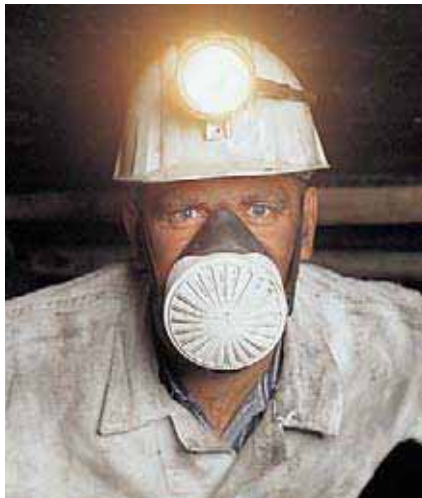
THE PICCO20 COMBINES THE PROTECTION AND COMFORT OF CONVENTIONAL HALF MASKS WITH THE LOW COST OF DISPOSABLE RESPIRATORS.

Better protection is afforded through the soft silicone or durable EPDM mask body providing a more effective facial seal when compared to a disposable mask, especially around the nose. The Picco20 provides a better facial seal when talking making it ideal when clear communication is essential. The head harness is a fabric-covered elastic that will not tangle in your hair.

The Picco20 is very economical because the larger filter media lasts longer. Unlike disposable filtering facemasks, which a worker will use several per day, the Picco20 will provide a longer duration of protection and reduce filter costs. The larger filter area allows the Picco20 to be used in very dusty environments for a longer period of time.

The P100 or R95 filters feature an enlarged surface with more filtering capability than the conventional disposable filtering facemasks or filter pads. This also drastically reduces inhalation resistance. A standard exhalation valve in the mask body further reduces breathing resistance and heat build up making the Picco20 very comfortable.

The Picco20 is NIOSH approved with filters that offer P100 and R95 protection levels against dusts, mists and other airborne particles or aerosols.



ORDER INFORMATION

Picco20 Mask, Silicone, Size M/L with (5) P100 Filters	R53660
Picco20 Mask, EPDM, Size M/L with (5) P100 Filters	R53665
Picco20 Mask, Silicone, Size M/L with (5) R95 Filters	R54150
Picco20 Mask, EPDM, Size M/L with (5) R95 Filters	R54160
Picco20 Mask, Silicone (mask only) Size S/M	R54730
Picco20 Mask, Silicone (mask only) Size M/L	R52600
Picco20 Mask, EDPM (mask only) Size M/L	R52219

Replacement Filters	
P100 Filters only, Box of 25	6736777
R95 Filters only, Box of 25	6737352

Single Cartridge System – Panorama Nova and Kareta M



Panorama Nova Series

Draeger's exclusive triple sealing edge means that there are actually three sizes in one mask; therefore, the Panorama Nova mask will fit all users. The centrally located filter allows a wide range of head movement and does not restrict peripheral vision. Users maintain over 90% of their normal vision without distortion. A stainless steel speaking diaphragm provides clear communications with others.

The Panorama Nova Masks combine optimum protection and comfort with low maintenance. They can be used in combination with various helmets, communication systems, or chemical protection suits.

Kareta M

The Draeger Kareta M mask is designed for use in military, civil defense, law enforcement, and domestic preparedness applications. Constructed of a chemically resistant neoprene, the mask body offers protection against chemical warfare agents and toxic industrial chemicals. The laminated safety glass, dual lens design offers excellent vision in all directions, while allowing the mask to be folded for storage.

ORDER INFORMATION

Panorama Standard, CR/NR Plexiglas lens & yellow plastic lens frame	R52999
Panorama Nova Basic, EPDM Polycarbonate lens, black plastic lens frame, speech diaphragm & neck strap	R53420
Panorama Nova RA, EPDM Polycarbonate lens, stainless steel lens frame, speech diaphragm & neck strap	R51525
Panorama Nova RA, Silicone Polycarbonate lens, stainless steel lens frame, and speech diaphragm	R51535
Panorama CDR 4500, EPDM Chemical Warfare Respirator	R55440

See below for available filters. See page 9 for mask accessories.

The standard thread connection accepts NATO NBC (Nuclear, Biological, Chemical) cartridges as well as Draeger NIOSH approved single cartridges and our NBC escape canister. A drinking device connection included on the Kareta M that connects to various canteens including the US military canteens.

ORDER INFORMATION

Kareta M Mask	R51372
Defense Kit (Kareta mask with NBC Cartridge)	4056865

Particulate Filters

P100 Cartridge	6737013
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Canister Filters

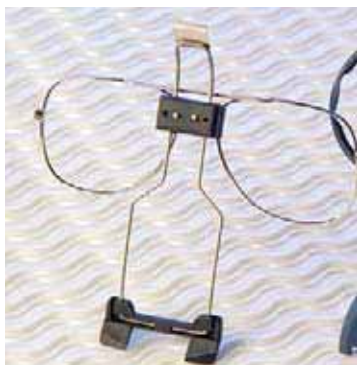
Phosphine/Tear Gas/P100	6737360
NBC Escape (EN approved)	6736545
NIOSH Multi-Gas	4056922

See page 9 for mask accessories.

Accessories



Draeger offers a variety of mask and filter carrying bags



Draeger's Spectacle Kit

MASK ACCESSORIES ORDER INFORMATION

Cleaners/Disinfectants

Alcohol Free Wipes, Box of 100	4053845
AirKem A-33, Powder, (40) 1/2 oz. packets	4054085
AirKem A-33, Liquid, 1 Gallon	4056523

Anti-fog Solutions, Alcohol Free

Liquid Gel 50 ml	R52560
Spray 100 ml	R21120

Carrying Bags

Half Mask Carry Bag	4055649
Full Face Tactical Mask Bag	4056997
Full Face Bag, Yellow Nylon with Belt Loops	4053847
Full Face Bag, Blue Nylon with Draw String	4055785
Full Face Case, Hard Plastic for Panorama	R51019

Accessories for the X-plore® 5500 and Panorama Nova Masks

Spectacle Kit, Standard Mount	R51548
Spectacle Kit, Removable Lens Frame (F2 Only)	R53325
Spectacle Kit Altec	4056406
Lens Overlay Protectors, Clear, 25 Each	4055092

Qualitative Fit Test Kits

Bitrex™ Qualitative Fit Test Kit, qty. (6) ampules	4055625
Irritant Smoke Fit Test Kit, qty. (6) ampules	4053844

C420 Powered Air Purifying Respirator (PAPR)



NOW APPROVED WITH THE PANORAMA NOVA MASK

The Draeger C420 is a high-performance PAPR designed for use by law enforcement, emergency responders, and military personnel on domestic preparedness missions. The standard NIOSH approved combination cartridges are designed to provide protection against nuclear, biological, and chemical warfare agents (NBC) as well as toxic industrial chemicals (TICs).

A PAPR provides a constant flow of filtered air to the users face piece thus providing a higher safety factor due to a positive pressure in the mask. The airflow greatly reduces breathing effort making the PAPR more comfortable to wear, especially during strenuous work conditions. Additional benefits include less fogging of the lens and more comfort due to the cooling effect of the airflow.

Unlike many industrial PAPRs, the C420 is airtight and waterproof and may be fully submerged for decontamination. In addition, the batteries can may be "hot swapped" during use in a warn zone environment. The battery compartment is also watertight and can be decontaminated.

The C420 system is a powerful and very lightweight PAPR. The added comfort and protection makes it ideal for in the demanding and extended duration operations. NBC filter cartridge is also NIOSH approved for use directly on the masks listed below as a full face air purifying respirator (APR).



ORDER INFORMATION

C420 PAPR System w/Cartridges w/o Mask 4057038

Masks Available

CDR 4500	R55440
Panorama Nova Basic	R53420
Panorama Nova EPDM	R51525
Panorama Nova Standard	R52999
Panorama Nova Silicone	R51535

NBC Filter Cartridges 4056922

Battery Pack, LiSO₂ 4056917

Rechargeable Batteries and Chargers Available



DefendAIR®



The DefendAIR® is ideal for emergency response professionals like police, emergency medical, and hospital staff as well as others who support such operations or ordinary civilians. The DefendAIR® is NIOSH approved for riot control agents (tear gas, CS & CN) and particle removal efficiency (P100), as well as independently tested to be effective against chemical warfare agents.

The DefendAIR® utilizes a combination canister. It provides a minimum of 30 minutes or more of protection against chemical warfare agents (Sarin, mustard, etc.), toxic industrial chemicals (organic vapors, chlorine, phosphine, etc.), biological warfare agents (anthrax, etc.) and nuclear (radio-nuclides). Easy to don, the DefendAIR® can be deployed in a matter of seconds.

The inner mask provides a seal around the nose and mouth offering better protection to the user. In combination with the chemically resistant Tyvek F® hood material, the DefendAIR® provides respiratory, eye, and skin protection to the user, regardless of facial hair or prescription lenses.

In today's political climate, anyone has the possibility of encountering chemical warfare agents. The US Department Homeland Security encourages all citizens to be prepared for the possibility of a terrorist threat. The Draeger DefendAIR® is one part in preparing a personal defense system. It is maintenance free and has a five-year shelf life making it ideal for your personal safety.

ORDER INFORMATION

DefendAIR®, NBC Escape Hood	R54838
DefendAIR®, Training Unit	R55195
Carrying Bag, DefendAir®	4056748
Training Video, VHS	4056941
Training Video, CD	4056942

Parat C



STRUCTURAL FIRES ARE ONE OF THE LEADING CAUSES OF ACCIDENTAL DEATH. MOST PEOPLE WHO DIE IN A FIRE SUCCUMB TO SMOKE INHALATION. THE SMOKE PRODUCED IN A STRUCTURAL FIRE CONTAINS PARTICLES, CARBON MONOXIDE, HYDROGEN CYANIDE, AND A VARIETY OF OTHER TOXIC CHEMICALS. THE PARAT C PROVIDES RESPIRATORY, EYE, AND HEAD PROTECTION TO THE USER DURING AN EVACUATION.

The filter in the Parat C will provide 15 minutes or more of protection against smoke particles, and toxic gases and vapors found in the smoke of a structural fire. The molded inner mask provides a seal around the nose and mouth offering better protection to the user. This design also allows for clear voice communications to assist others in their escape.

The hood material is a self-extinguishing PVC material. The bright orange color is highly visible with good reflective properties making users easier to spot. The visor is coated with an anti-fogging agent so the user is able to see their escape route better. The hood design of the Parat C provides protection for people with facial hair, prescriptive eye ware, or long hair.

The Parat C is ideal for people who work or live in high-rise buildings, large institutions like hospitals, or industrial facilities. The hard-sided case can be permanently mounted while the soft-sided case is ideal for traveling. The Parat C is maintenance free and has a 12-year shelf life, provided the canister is replaced after 6 years. No NIOSH approval is written for smoke escape hoods, but the Parat C has European EN 143 and 403 approvals.

ORDER INFORMATION

Parat C Hood in soft-sided vinyl case	R53555
Parat C Hood in hard-sided plastic case	R52818
Wall bracket for hard-sided case	R51906
Belt to carry hard-sided case	R53205
Replacement Filter	6736192
Filter kit, includes replacement filter and exhalation valve	4057753



QuickAir™

The QuickAir™ provides a constant flow of breathing air up to 5 or 10 minutes into a transparent, flame-resistant hood for escape purposes. The hood easily accommodates people with prescriptive eye ware, long hair and beards. The QuickAir™ is lightweight, easy to carry and can be worn over the shoulder or across the chest.

Able to be donned quickly the QuickAir™ carrying bag has easy to follow pictograms to serve as a quick reminder for proper operation. The orange case is highly visible and is durable enough to withstand long-shelf life conditions in extreme environments.

The Quick Air™ is NIOSH approved as a self-contained breathing apparatus for escape purposes. Popular applications include laboratories, chemical plants, power plants and shipboard usage.

ORDER INFORMATION

QuickAir™, 5-minute @ 40 L/min (2216 psi)	4055438
QuickAir™, 10-minute @ 40 L/min (3000 psi)	4054954
Storage Case, QuickAir, 5-minute	4055042
Storage Case, QuickAir, 10-minute	4055041



Oxy K Plus

The Oxy K Plus is a belt wearable Self Contained Self Rescuer (SCSR). Chemically generated oxygen (KO_2) provides a minimum of 60 minutes operational escape time. Unlike filter escape units, the Oxy K Plus operates independent of the ambient atmosphere and can be used in oxygen deficient environments.

Draeger's patented Speed-Flip latch allows for fast and safe opening of the unit. The self-starter immediately flows 6 liters of oxygen into the breathing bag making it immediately available for operation.

This MSHA/NIOSH/EN approved escape unit is designed to meet the rigors of an underground mining or tunneling environment, but can be used in other operations that require longer duration escape devices. The Oxy K Plus has a service life of 8 years when worn daily on the belt and 10 years in storage.

ORDER INFORMATION

Oxy K Plus	6302000
Oxy K Plus, 60 Minute Training Unit	6302001
Shoulder/Carrying Strap	6303070



Personal Airline Systems (PAS)



PAS Colt

The PAS Colt is a 5 or 10-minute Supplied Air Respirator (SAR) approved for up to 300 feet of airline hose. The unique over the shoulder tangle free harness design incorporates flame/heat resistant, chemical resistant materials and is machine washable for easy maintenance.

The first stage pressure reducer, second stage lung demand regulator, and shoulder buckles share the same origin as our NIOSH CBRN SCBAs.

The PAS Colt utilizes the Panorama Nova full facemask with three-size-in-one technology.

ORDER INFORMATION

Colt 5-Minute with Mask, Hansen Brass	4057539
Colt 5-Minute without Mask, Hansen Brass	4057540
Colt 10-Minute with Mask, Hansen Brass	4057541
Colt 10-Minute without Mask, Hansen Brass	4057542
Installed Colt LP SAR Alarm, Hansen Brass	4057538
Additional SAR Fittings Available	



PAS Micro - Personal Airline System

The PAS Micro is a 15 minute SCBA with the capability of adding a Supplied Air Respirator (SAR) connection, making it very versatile for working in hazardous environments. The harness has been constructed of flame, heat and chemical resistant materials that are anti-static and are easy to clean and maintain. The streamlined tangle free harness has been designed for mobility and is easy to don/doff.

The first stage pressure reducer, second stage lung demand regulator, and shoulder buckles share the same origin as our NIOSH CBRN SCBAs.

The PAS Micro utilizes the Panorama Nova full facemask with three-size-in-one technology.

ORDER INFORMATION

Micro SCBA Long Hose with Mask	4057530
Micro SCBA Long Hose without Mask	4057532
Micro SCBA Short Hose (with QD) with Mask	4057531
Micro SCBA Short Hose (with QD) without Mask	4057533
Installed Micro SAR with Hansen Brass	4057535

Supplied Air Respirators



SAR - Supplied Air Respirator

Hard work requires rugged and durable equipment. The Draeger SAR is a Type C supplied air respirator for working extended periods in non-IDLH environments. The Draeger modular supplied air respirator products are based on the Panorama Nova Mask. The Panorama facemask combines durability and breathing comfort with safety, reliability, and the versatility that can be used in conjunction with almost all head and body protection systems.

The Draeger SAR comes complete with Panorama Nova Mask (EPDM), lung demand valve, belt assembly, and a brass Hansen quick disconnect plug. It is ideal for use in paint spray booths, construction, abatement or other non-IDLH applications where the airborne concentration of hazards does not permit air purifying respirators.

ORDER INFORMATION

Supplied Air Respirator Assembly	4055269
Storage/Carrying Case	4059079

Silicone masks, stainless steel airline connections, and other options and accessories are available for the Draeger SAR. Contact your local Draeger representative for more information.



ALE Lite

The ALE Lite is a combination supplied air respirator and escape SCBA for entering and working in Immediately Dangerous to Life and Health (IDLH) atmospheres. The airline allows for extended work activity while the escape cylinder provides 5 or 10 minutes of emergency escape breathing air. The escape cylinder's low profile does not interfere when entering or exiting tight places. The entire system is modular and easily cleaned or decontaminated.

The ALE Lite is ideal for ILDH or potential IDLH atmospheres typically found in the chemical, petrochemical, HazMat clean-up, and nuclear industries and for confined space entry. The Draeger ALE comes complete with Panorama Nova Mask (EPDM), lung demand valve, harness assembly, escape cylinder and a brass Hansen plug for quick air hose connection/disconnection.

ORDER INFORMATION

ALE Lite with 5-minute Escape Cylinder	4055260
ALE Lite with 10-minute Escape Cylinder	4055259

Silicone masks, stainless steel airline connections, and other options and accessories are available for the Draeger ALE. Contact your local Draeger representative for more information.

Airline Respirators



PentAir

The Draeger PentAir constant flow respirators are designed with comfort, protection and flexibility in mind. They can be used for in wide variety of situations like paint spraying, grinding, welding, and other non-IDLH applications.

The user has the choice of fixed flow, adjustable flow, or adjustable cool-flow valves. The adjustable valve allows the user to increase or decrease air flow to the mask. The cool-flow valve cools the air through a venturi and ideal for applications with elevated temperatures.

The PentAir uses the Panorama Nova mask that features the triple sealing edge that provides three sizes in one mask and also offers the versatility of using the full line of Draeger NIOSH approved filter cartridges.

ORDER INFORMATION

PentAir, Fixed Flow, w/Panorama Nova Mask	4055168
PentAir, Adjustable Flow, w/Panorama Nova Mask	4055170
PentAir Mask Respirator Kit - Complete	4055192

Consists of: PentAir Fixed Flow with Panorama Nova Mask, 50 ft light-duty hose, Hansen socket set, and 2-user portable air pump.

Silicone masks, stainless steel airline connections, and other options and accessories are available for the Draeger Pent Air. Contact your local Draeger representative for more information.



Portable Air Pumps

Supply your fixed flow PentAir mask or other manufacturer's hoods with the Draeger Portable Air Pump. Our ambient air pump provides a maximum of 15 CFM flow at an output of 15 psi. This electric driven pump is oil-less so there are no concerns of oil by-products entering the breathing air. Three different versions are available to meet your supplied air demands. All versions come complete with intake and outlet particle filters.

ORDER INFORMATION

Portable Air Pump; Supplies 2 Masks or 1 Hood	4055172
Portable Air Pump; Supplies 3 Masks or 2 Hoods	4055169
Portable Air Pump; Supplies 4 Masks or 3 Hoods	4055166

Airline Equipment



Airline Hose

Maintain the NIOSH certification of your Draeger airline respirators by using approved Draeger Safety airline hose. Choose from heavy-duty, light-duty hoses in lengths from 5 to 100 feet, and type of fitting required.

The heavy-duty hose is constructed of nitrile with a rugged neoprene cover and has an outer wall diameter of 0.75". It offers better resistance to abrasions and kinks and withstands more demanding and physical environments. The light-duty hose is constructed of PVC and has an outer wall diameter of 0.68". This hose is well suited to many applications and is 40% lighter making it easier to maneuver and decontaminate.

Both hoses have an inside diameter of 0.375" and comes with a male and a female pipe thread fitting at either end. Hoses may be directly joined together (end to end) or with the use of optional quick connect couplings.

ORDER INFORMATION

Heavy-duty Airline with threaded connections

5-foot length	4059357
25-foot length	4059061
50-foot length	4059062
75-foot length	4054854
100-foot length	4059063

Light-duty Airline with threaded connections

5-foot length	4059357L
25-foot length	4059061L
50-foot length	4059062L
75-foot length	4054854L
100-foot length	4059063L



Cascade Systems

Draeger Safety can provide you with all the components needed to set up your supplied air respirator system. Our Cascade Breathing Air Systems are designed to provide breathing air for up to 4 airline respirators. Each system comes complete with: pressure reducer, dual pressure gauges, relief valve, low-pressure alarm, inline check valves, and distribution manifold with 4 Hansen brass quick connects.

We also supply high and low pressure compressors and the associated accessories to fill your SCBA cylinders. Our custom designed cascade systems meet your individual breathing air storage and delivery requirements.

ORDER INFORMATION

1 cylinder system (up to 3000 psi), without cylinders	4055749
3 cylinder system (up to 3000 psi), without cylinders	4055461
3 cylinder system (up to 3000 psi), with cylinders	4055462



K-Kart II

The K-Kart II transports compressed breathing air cylinders to remote locations. Using two 300 cubic foot compressed air cylinders, the K-Kart II delivers up to 1800 L/Min of air through 4 airline connections (< 125 psi). Air is regulated from the control panel that includes two easy to read pressure gauges, low-pressure warning whistle, and four Hansen brass couplers.

The 4-wheel design makes it easy to maneuver in the workplace. An optional storage bin allows you to store respirators and associated equipment for the K-Kart II. Airline hose can be stored on either a single 300 ft reel or two 150 ft reels.

The K-Kart II supplies air for confined space entry and Haz-Mat operations and other industrial applications that require more of an extended air supplies than the Draeger Handy Pak or Rescue Pak.

ORDER INFORMATION

K-Kart II w/ 300-foot reel	4055327
K-Kart II w/ 300-foot reel and storage box	4055328
K-Kart II w/ (2) 150-foot reels	4055329
K-Kart II w/(2) 150-foot reels and storage box	4055330
K size Cylinder with valve	4059331
Soft cover for K-Kart	4055621



Rescue and Handy Pak

The Handy Pak and Rescue Pak are versatile air supply systems. They can act as the primary air source, or when used with an external high-pressure air source, they serve as a backup for emergency egress.

Both systems can be used with 2 SCBA cylinders (2216 or 4500 psi) and are equipped with a low-pressure warning whistle. Pressure is regulated to 4 connections for airline respirators. The Handy Pak is lightweight and easily carried, where as the Rescue Pak has wheels that make transportation easier. The Rescue Pak also contains a fifth air connection with a dedicated regulator that provides air for another respirator or pneumatic tools.

The Handy Pak and Rescue Pak are ideal for use in confined space entry; such as tank entry and cleaning, sewer maintenance operations, and other industrial applications. They are also applicable for emergency responders for use in extended Haz-Mat operations or the decontamination processes.

ORDER INFORMATION

Rescue Pak	4053977
Handy Pak	4053879
Cover for Rescue Pak Only	4055257



See page 31 for available SCBA compressed air cylinders.

Airline Equipment



Draeger's Air Filtration Panels provide Grade "D" breathing air to workers using supplied air respirators in hazardous or IDLH environments. The design allows you to connect plant air or a mobile air compressor as the primary source. The Air Filtration Panels filters: particles, water vapor, oils, and odors that may be in the air. A built-in CO monitor ensures that the air is meeting grade "D" standards. The Air Filter Panels provide up to 50 CFM of breathing air through 4 airline connections or 100 CFM through 8 airline connections.

Both versions include visual alarm and a loud (120 dbA) audible alarm and will also accept a remotely mounted alarm. They operate from 110 VAC and have a battery back-up in case of a power outage.

The Fixed version is to be permanently mounted to a wall or other stationary object. The Portable version is housed in an extremely rugged molded plastic case for easy transportation. The filters and CO monitor are protected inside while the airline connections are external to the case.



ORDER INFORMATION

Fixed Air Filtration System, 50 CFM	4055356
Fixed Air Filtration System, 100 CFM	4055357
Portable Air Filtration System, 50 CFM	4055563
Portable Air Filtration System, 100 CFM	4055564

ProAir® Evolution NIOSH Approved



The ProAir® Evolution is a high-performance industrial breathing apparatus, designed by those individuals who require maximum respiratory protection from hazards in the workplace. This NIOSH-certified SCBA offers reliability, comfort, and low cost of ownership.

The Panorama Nova Mask with its exclusive three-sizes-in-one design is standard on the ProAir® SCBA. The Panorama Nova Mask is also used on our Supplied Air (SAR) and Airline Egress (ALE) Respirators and therefore simplifies training and mask fit testing requirements and spare part requirements.

The lightweight carbon fiber back plate and nylon harness is ergonomically designed for comfort while being extremely rugged and chemically resistant. The fail-safe first stage pressure reducer and the complete pneumatic system is covered by a lifetime warranty.



ORDER INFORMATION

ProAir® SCBA, w/30 min. 2216 psi, Aluminum Cylinder	4055399
ProAir® SCBA, w/60 min. 4500 psi, Carbon Fiber Composite Cylinder	4055739

The ProAir® SCBA is available with various cylinders and installed options. See the SCBA Components and Accessories section for more information. Contact your local Draeger representative for additional information.



AirBoss® PSS 97 Series NIOSH Approved

The AirBoss® PSS 97 Plus Series is a NIOSH approved SCBA for extreme conditions and applications. This SCBA meets the standard requirements of NIOSH and meets the previous North American standards for fire fighting applications.

This Draeger SCBA offers a higher level of durability and comfort over our standard NIOSH approved industrial model. The Kevlar blend harness suspension system performs extremely well in high heat applications and has outstanding resistance to abrasion. The padded waist and shoulder strap are more comfortable in situations where the unit is frequently worn.

As with all Draeger SCBAs, the AirBoss® PSS 97 is backed by our lifetime warranty on the pneumatic system. The AirBoss® PSS 97 lets you concentrate on the job at hand, not on your equipment.

The AirBoss® PSS 97 Series SCBA is available with various cylinders and installed options. See the SCBA Components and Accessories section for more information. Contact your local Draeger representative for additional information.



ORDER INFORMATION

The AirBoss® PSS 97 SCBA is available with various cylinders and installed options. See the SCBA Components and Accessories section for more information. Contact your local Draeger representative for additional information.



AirBoss® PSS 500 Plus NIOSH Approved



The Draeger AirBoss® PSS 500 is a revolutionary design in breathing apparatus. It is the first SCBA to take the total weight of the unit off the user's shoulders and back and distribute the weight onto the hips. The unique design of the AirBoss® PSS 500 permits the breathing apparatus to move freely with the user, reducing back and shoulder strain.

The unique triple sphere arrangement of the cylinders increases wearer stability and balance by moving the SCBA load closer to the user's natural center of gravity, thereby providing an ergonomic alternative to traditional SCBA. The cylinder sphere pack also provides for a quick and simple cylinder change using the patented Quick-Lock air supply valve. The PSS 500 is NIOSH approved as a 30-minute duration SCBA but it also offers a full 40 minutes of air, making it ideal for any situation where the traditional SCBA just won't do.

The Draeger AirBoss® PSS 500 is ideal for the law enforcement, emergency responders and others who need the additional mobility offered by this truly unique design.



ORDER INFORMATION

AirBoss® PSS 500 Plus with standard analog gauge	4056836
AirBoss® PSS 500 Plus with Sentinel digital gauge	4056837
AirBoss® PSS 500 Plus with Sphere Pack	4056574
AirBoss® PSS 500 Plus Fill Adapter	3351506

The AirBoss® PSS 500 Plus SCBA is available with various installed options. See the SCBA Components and Accessories section for more information. Contact your local Draeger representative for additional information.



Draeger Safety's Tactical SCBA . . . built for stealth

Draeger Safety's tactical SCBA offers all of the benefits of a fire fighting SCBA without the glitter and whistle. Designed for covert operations the unit is non reflective and silent. The PRISM® Heads Up Display provides indication of cylinder pressure as well as acts as the low pressure alarm. A shrouded standard gauge also provides cylinder content information. Nomex shrouds cover shoulder and waist buckles, the metal seat buckle and the quick release on the second stage regulator to eliminate large reflective surfaces. The unit is available with the single piece backplate and the adjustable backplate. Utilizing the same state of the art pneumatics as the AirBoss® Evolution Plus and the PSS100 Plus, the tactical SCBA is available in 2216 psi and 4500 psi.

AirBoss® PSS 100 Plus

NFPA Approved
CBRN Approved



Pivoting padded waistbelt allows for unrestricted movement.



Unique 3-position backplate fully adjusts to fit all torso lengths.

AirBoss® PSS 100 Plus is designed for comfort and performance. The revolutionary adjustable 3-position carbon fiber composite backpack gives the wearer a means to achieve the perfect fit for any torso size or length - quickly and without any tools! This proven design reduces stress on the user, allowing you to focus on the task at hand.

The back plate actually moves with the user! The unique pivot point design allows the back plate to automatically lengthen and pivot with the users movements for true comfort and unrestricted movement. Most of the weight of the SCBA rests on your hips, thus reducing back strain and increasing stability and balance through a lowered center of gravity. This design allows the wearer to work more effectively with less fatigue.

Another revolutionary feature of the AirBoss® PSS 100 Plus is the wireless PRISM® Pressure Information System that continually monitors cylinder content and supplies the information to a Heads-Up Display inside the mask. The AirBoss® PSS 100 Plus also includes the Rapid Intervention Crew Universal Airline Adaptor for rescue of downed fire fighters in compliance to the new NFPA 1981, 2002 edition standard.

The AirBoss® PSS 100 Plus is a combination of proven technology and innovative design that is reliable, comfortable, as well as being easy to use and maintain. All of this is backed by Draeger Safety's industry leading lifetime warranty on the pneumatic system.





All of this new technology is based on our field-proven high performance pneumatic system that delivers enough air for any situation. This fail-safe system is covered with a lifetime warranty. The Panorama Nova Mask is field proven for fit and comfort. It is the most widely used mask for fire fighters around the world!

The AirBoss® PSS 100 is a combination of proven technology and innovative design that is reliable, comfortable, as well as being easy to use and maintain. All of this is backed by Draeger Safety's industry leading lifetime warranty on the pneumatic system.



Rapid Intervention Crew Universal
Airline Coupling (RIC UAC)

SPECIFICATIONS AND APPROVALS

NIOSH 42 CFR
NFPA 1981 – 2002 Edition
NIOSH CBRN



ORDER INFORMATION

The AirBoss® PSS 100 Plus SCBA is available with various cylinders and installed options. See the SCBA Components and Accessories section for more information. Contact your local Draeger representative for additional information.

AirBoss® Evolution Plus NFFPA Approved CBRN Approved

The AirBoss® Evolution Plus lets you concentrate on the job at hand, not on your equipment. This Draeger high performance breathing apparatus, the AirBoss® Evolution Plus, is designed specifically for use in professional fire fighting applications. Reliability, durability, and comfort are the main objectives.

This ergonomically designed mechanical system means less stress on the back and shoulders. A lightweight carbon composite one-piece back plate conforms to the shape of your back. The comfort harness suspension system removes weight from the shoulders and applies it to the hips, where you are able to carry more weight.

You can be assured that you will get every breath you need, every time you need it. The first stage reducer features a fail safe design and will deliver all of the breathing air that you need, even in the most demanding situations and is backed by a lifetime warranty

The NFFPA approved AirBoss® Evolution Plus SCBA includes our new wireless PRISM® Pressure Information System for pressure indications inside the mask and a Rapid Intervention Crew Universal Airline Coupling for rescue of downed firefighters.



With many options and accessories available, the AirBoss® Evolution Plus SCBAs can be tailored to meet your specific needs. Customize the AirBoss® Evolution Plus to your departments needs now or easily add accessories later. Be assured that with Draeger you'll get the highest quality product available.

SPECIFICATIONS AND APPROVALS

NIOSH 42 CFR 84
NFFPA 1981 – 2002 Edition
NIOSH CBRN

ORDER INFORMATION

The AirBoss® Evolution Plus SCBA is available with various cylinders and installed options. See the SCBA Components and Accessories section for more information. Contact your local Draeger representative for additional information.

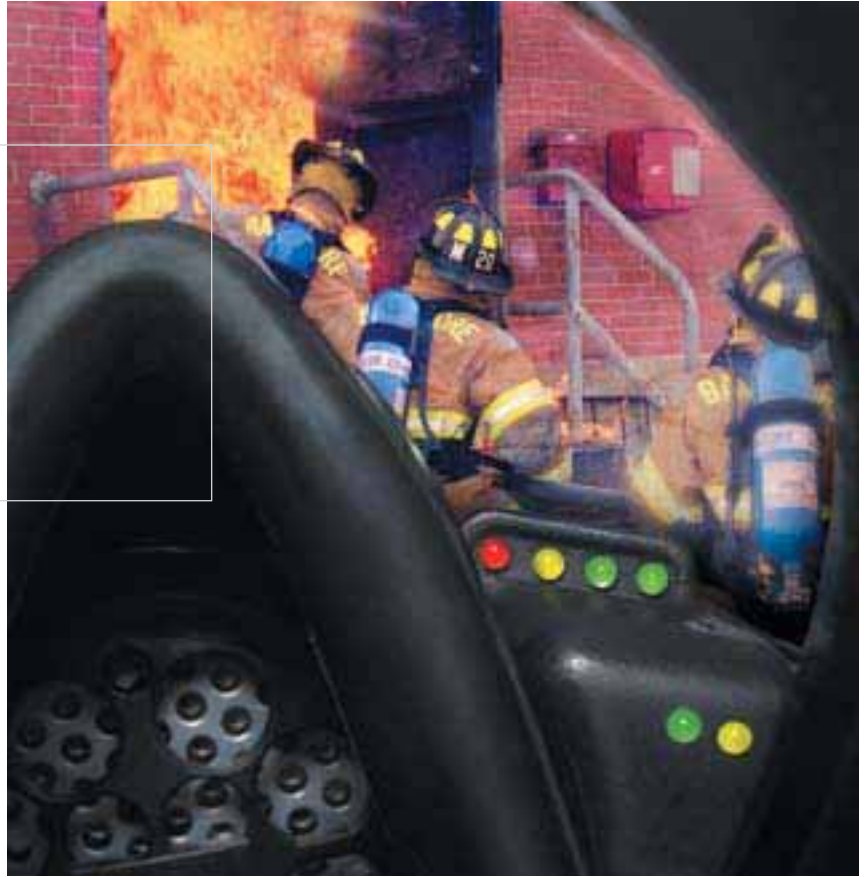


PRISM® Plus

The PRISM® Plus Pressure Information System, is a wireless Heads-Up-Display (HUD) that meets the rigorous demands of NFPA 1981-2002 edition. A transducer/transmitter is located on the high-pressure gauge line and quantitatively measures the air pressure in the SCBA cylinder. Automatically activated when the cylinder is turned on, it continuously transmits real-time pressure levels via inductive loop technology to a receiver (display unit) inside the user's facemask. A series of lights on the receiver indicate air pressure and alert signals. The user is kept continuously updated as to the quantity of air remaining in their SCBA air cylinder by the PRISM® Plus system.



PRISM® Transducer



PRISM® Plus In-Mask Display

The wireless feature of the PRISM® Plus eliminates connecting wires that are a potential snag hazard. There are no wires, so there is less maintenance to the SCBA. The PRISM® Plus display unit is located inside the mask, protected from heat, dirt, water and smoke. The low profile design does not interfere with the user's range of vision and the photocell automatically adjusts the display brightness to the correct intensity for the ambient lighting conditions.

When used for 30 minutes a day, the PRISM® Plus will operate for approximately 6 months. The PRISM® Plus is approved to US and Canadian standards for use in Class I, II, & III, Division 1, Group A-G locations.

The PRISM® Plus Pressure Information System is standard equipment on the all NFPA 1981-2002 Edition AirBoss® Evolution Plus and AirBoss® PSS 100 Plus SCBAs.

SCBA Components and Accessories



AirBoss® Sentinel II

The AirBoss® Sentinel II is a fully integrated “Life Support Monitoring Device” for fire fighting SCBAs. It is both a cylinder pressure indicating gauge and an integrated PASS warning device with visual and attention demanding (>95 dBA) audible warnings.

The current cylinder pressure is indicated on a dual analog/digital backlit gauge. The AirBoss® Sentinel II automatically calculates and displays real time to low-pressure alarm based on the user’s actual consumption rate. Two high-intensity flashing lights and a loud “chirping” alarm are used for the low-pressure warning signal.

All data is recorded and stored within the AirBoss® Sentinel II (time/date, cylinder pressure, breathing rate, alarm activation, and thermal absorption temperature) and can be downloaded at a later time.

SPECIFICATIONS AND APPROVALS

PASS: NFPA 1982, 1998 Edition

Intrinsic Safety: UL/ULc; Class I, Division 1, Groups A-G

Power Supply: 9-Volt Alkaline Battery

ORDER INFORMATION

The AirBoss® Sentinel II is an approved option on the AirBoss® Evolution Plus, AirBoss® PSS 100 Plus, AirBoss® PSS 97, AirBoss® PSS 500, and the ProAir® Evolution SCBA.



Super I-PASS II

For users who do not want the added features of the AirBoss® Sentinel II, Draeger offers the Super I-PASS II, a fully integrated Personal Alert Safety System “PASS” that meets the rigorous demands of NFPA 1982 -1998 edition.

This rugged and lightweight (7 oz/220 g) PASS device uses a highly sensitive motion sensor, which eliminates false alarms. A manual panic button can also be used to active the audible and visual warning systems. The Super I-PASS II is available in either waist mounted or over the shoulder versions.

SPECIFICATIONS AND APPROVALS

PASS: NFPA 1982, 1998 Edition

Intrinsic Safety, (ETL): Class I, II & III; Division 1; Groups A-G

Power Supply: 9-Volt Alkaline Battery

ORDER INFORMATION

The Super I-Pass II is an approved option for the ProAir® Evolution, AirBoss® Evolution Plus, AirBoss® PSS 100 Plus, and AirBoss® PSS 97.

PSS® Merlin



DRAEGER HAS ALWAYS HAD AN OUTSTANDING REPUTATION FOR INNOVATION, DESIGN AND LIFE-SAVING TECHNOLOGY. THE COMPANY WAS FOUNDED IN 1889 AND HAS BEEN DEDICATED TO THE PROTECTION OF HUMAN LIFE EVER SINCE.

DRAEGER HAS AUTOMATED ENTRY CONTROL SYSTEMS TO BECOME A LIFELINE FOR THE BREATHING APPARATUS WEARER, ENSURING THEIR SAFETY BY REMOTELY MONITORING FROM OUTSIDE THE INCIDENT THEY ARE ATTENDING.

THE PSS® MERLIN™ IS THE FIRST ENTRY CONTROL SYSTEM OF ITS KIND, OFFERING A LEVEL OF MONITORING AND PROTECTION NOT PREVIOUSLY AVAILABLE.



Data Radio Technology

Using state of the art data radio technology, the DrägerMan PSS® Merlin™ is a fully automatic, electronic breathing apparatus control system. Merlin™ incorporates an entry control board, the AirBoss® Sentinel II and a portable remote data module. The system allows the Entry Control Officer to monitor the exact status of up to 12 individual team members simultaneously from outside the incident or hot zone.

Advanced Electronic Monitoring

Sentinel II is Draeger's advanced electronic monitoring and signaling device, which combines pressure gauge, temperature monitor, low air warning system and PASS alarm/distress unit into a single instrument. The wearer receives constant status updates from the Sentinel II. The PSS® Merlin™ automatically receives constant updates from the Sentinel II, keeping the entry control officer updated.



The PSS® Merlin Provides:

- Continuous transmission of cylinder pressure
- Continuous transmission of time to warning alarms
- Continuous transmission of thermal absorbed temperature
- Automatic PASS alarm signal
- Manual PASS alarm signal
- Voluntary withdrawal signal
- Individual evacuation command
- Group evacuation command
- The entry control board displays additional data according to your needs:
 - Time of warning
 - Elapsed time
 - Battery life indicator
 - Time to low air alarm flashing display prompt



The IR Link on the portable data module transmits data from the Sentinel® to the control board outside the incident.



Innovative Design

The PSS® Merlin™ control board is a battery operated self contained unit, with built in radio transmitter and antenna, allowing up to 12 team members per board to be monitored simultaneously. Because the PSS® Merlin™ is continuously updated with the latest status of each team member, the Entry Control Officer can react immediately in an emergency.

The Merlin™ is robust and designed to withstand the demands of Fire Service wear and tear.

Radio Technology

Connection to the Sentinel II from Draeger's dedicated digital remote data module is via the Infra Red port. The cable from the Sentinel II to the remote data module is protected by a flame retardant aramid shroud.

The PSS® Merlin™ and AirBoss® Sentinel II are programmed to detect when radio contact had been lost, both the SCBA wearer and the Entry Control Officer are made aware by audible and visual warnings when this has occurred. Signals cancelled when contact has been re-established. All additional updates (during loss of signal) are immediate.

Adaptable

The Merlin™ board is molded with carrying handles for maximum portability and for additional flexibility can also be mounted onto the firetruck.

The PSS® Merlin™ can be tailored with software and data can be downloaded from the Merlin™ board for post-incident analysis.

TECHNICAL DATA

Power Supply	Control Board 7.2V rechargeable, Nickle Metal Hydride Radio 6.5V rechargeable, Nickle Metal Hydride	
Weight (approximate)	Control Board	16.5 lbs (7.5 kg)
	Radio Assembly	1.7 lbs. (0.75 kg)
	Sentinel	1.5 lbs. (0.65 kg)
Dimensions (approximate)	Control Board	17.7 x 30.7 x 2.8 in. (450 x 780 x 70 mm)
	Sentinel	7.9 x 1.6 x 2.8 in. (200 x 40 x 70 mm)
	Remote Data Module	4.3 x 2.8 x 2 in. (09 x 70 x 50 mm)
	Port Unit Antenna	2.2 in. (60 mm)



Rapid Intervention Crew Universal Airline Coupling (RIC UAC)

The new NFPA 1981 standard for SCBA, 2002 Edition calls for all approved SCBAs to be equipped with a Rapid Intervention Crew Universal Airline Coupling (RIC UAC). The RIC UAC allows the connection of a secondary air source to rescue downed firefighters. The fill lines will supply air to any SCBA manufacturer's RIC UAC.

On the AirBoss® Plus series of SCBAs, the RIC UAC is positioned parallel to the back plate where it provides easy access and quick connections. The unique positioning of the Draeger RIC UAC provides excellent protection against impact or snagging hazards for increased safety to the wearer.

The RIC UAC is standard equipment on all NFPA 1981-2002 edition AirBoss® Evolution Plus and AirBoss® PSS 100 Plus SCBAs.



AirBoss® RIT Lifeguard

Rapid Intervention Teams require specialized and rugged equipment to rescue victims or downed firefighters. The AirBoss® RIT LifeGuard will accommodate your choice of a 30, 45 or 60-minute 4500 psi cylinder in a heavy-duty, padded and fire resistant, cordura bag.

Air is delivered by the same high-performance pneumatics found on the AirBoss® SCBA delivering in excess of 1000 liters/minute if needed. The cylinder is wrapped in a rugged Cordura bag with two large storage pockets and 2 "D" rings to attach other equipment.

ORDER INFORMATION

AirBoss® LifeGuard 4056460
 Includes: Carrying Bag, 3 ft. medium pressure version hose with female coupling and first stage pressure reducer (without cylinder)
 See page 28 for available cylinders.

For use with the SCBA's RIC UAC:

5 ft. high pressure fill line without gauge	4057070
10 ft. high pressure fill line without gauge	4057069
5 ft. high pressure fill line with gauge	4057068
10 ft. high pressure fill line with gauge	4057067



Multi-Link Auxiliary Airline System

Draeger offers the new Multi-Link Auxiliary Airline System in 20-inch and 40-inch line lengths which provides increased versatility and safety. Attaching directly to the first stage reducer, the Multi-Link system features a unique easy to use Y piece with female and male CEJN fittings. This unique configuration allows rapid connection to either an airline source i.e. RIT pack or in extreme emergency cases to another Multi-Link Auxiliary Airline. A Nomex pouch is provided with the system and attaches to the waist belt for convenient storage and easy retrieval.

Multi-Link 40" with pouch installed	4056451
Multi-Link 20" with pouch installed	4056377

SCBA Components and Accessories

Panorama Nova Facemask

Draeger's exclusive triple sealing edge means that there are actually three sizes in one mask, therefore, the Panorama Nova mask will fit all users. The large lens and small Plus LDV means that the SCBA user will maintain over 90% of their normal vision without distortion. A stainless steel speaking diaphragm provides clear communications with others. For CBRN users unable to utilize the silicone facepiece, we offer a small and large Panorama Nova for optimal comfort. The non-directional plug-in connection allows easy donning of the Draeger Plus LDV pressure reducer. The inhalation valve of the Panorama Nova Mask in conjunction with the exhalation valve eliminates cross contamination of the LDV. The Panorama Nova P Mask can be cleaned and decontaminated without any tools or disassembly.

The Panorama Nova mask (EPDM) is standard equipment on the ProAir® Evolution, AirBoss® Evolution Plus, AirBoss® PSS 100 Plus, AirBoss® PSS 97, and the AirBoss® PSS 500.



ORDER INFORMATION

Panorama Nova, EPDM (NFPA 1981-2002 Edition)	4052955
Panorama Nova, Silicone (NFPA 1981-2002 Edition)	4052719
Panorama Nova, EPDM (NIOSH SCBA)	R52972
Panorama Nova, Silicone (NIOSH SCBA)	R53070
Panorama Nova, EPDM with Black Frame (NIOSH)	4057149
Panorama Nova, EPDM (NFPA 1981-20002 Edition) Small	R55702
Panorama Nova, EPDM (NFPA 1981-20002 Edition) Large	R55703

Plus LDV

The high-performance lightweight balance piston Lung Demand Valve (LDV) delivers in excess of 550 liters/minute of air, supplying all the air that anyone would use, even under the most strenuous working circumstances. The Plus LDV is a single directional airflow system and when connected to the Panorama Nova face mask is not subjected to cross contamination.

Extremely quiet, the Plus LDV is a positive pressure system that is activated on the first breath. The donning lever allows the LDV to be in a stand-by mode for quick activation when need. Even when wearing gloves, the ergonomic design of the Plus LDV allows the user to easily connect and disconnect from the mask.

The Plus LDV is standard equipment on the ProAir® Evolution, AirBoss® PSS 97, AirBoss® PSS 500, AirBoss® Evolution Plus, and AirBoss® PSS 100 Plus SCBA.

ORDER INFORMATION

Plus LDV with Quick Release Coupling	3338712
Plus LDV without Quick Release Coupling	3338714



AirBoss® Harness Suspension System

To compliment the ergonomic back plates of the AirBoss® Plus Series of SCBA, Draeger has designed a comfortable and rugged harness suspension system. The entire system is designed to move the weight of the SCBA away from the shoulders and onto the hips to reduce back and shoulder stress to the user.

The SCBA harness straps are constructed from a Panotex Kevlar/Aramid/U-blend interwoven material that provides a superior combination of strength, abrasion resistance, and temperature resistance. The shoulder pads and comfort waist harness further reduce stress to the user.



All AirBoss® SCBAs are easy to don and adjust due to the large low profile friction buckles and quick adjust pull forward harness straps. Even when wearing gloves, the large friction buckles are easy to grasp and move for a custom fit to any size fire fighter.

This extremely rugged yet comfortable harness suspension system is standard equipment on the AirBoss® Evolution Plus, AirBoss® PSS 100 Plus, AirBoss® PSS 97, and AirBoss® PSS 500 SCBAs.



New Integrated Self Rescue Harness for SCBA

Make your SCBA double as a fall arrest harness by replacing the standard waistpad of either the AirBoss® Evolution Plus or the AirBoss® PSS100 with the Fire Fighter Rescue Escape Device. This self contained and pre-rigged harness is UL certified to NFPA standards. Weighing less than 4 pounds, the harness contains 50, 75 or 100 feet of Kevlar tubular webbing with a tensile strength of 5500 pounds, The harness and tubing are rated to 863 degrees F. The harness requires no special skills or extensive training to use. A pull-out carabineer is attached to a safe anchor and using a single finger the user lowers themselves to the ground. After use, the line can easily be repacked.



Compressed Air Cylinders

Draeger offers SCBA cylinders in different sizes and construction to meet the demands of different applications. Cylinders are offered in 2216 (low pressure) and 4500 psi (high pressure) operating pressures. Durations of 30, 45 and 60 minutes (at 40L/min breathing rate) are available. Choose from aluminum or light weight carbon fiber full-wrap construction.

SCBA cylinder valves are constructed of anodized aluminum with a built in bumper protector. The valve gauge is double sided with a luminescent gauge face for easy readability. Custom labeling is available on Carbon Fiber Full-wrapped cylinders. Contact your local Draeger representative for details.



ORDER INFORMATION

Cylinder, 2216 psi, 30-minute, Aluminum	4054856
Cylinder, 2216 psi, 30-minute, Carbon Fiber, Full-wrapped	4055701
Cylinder, 4500 psi, 30-minute, Carbon Fiber, Full-wrapped	4055700
Cylinder, 4500 psi, 45-minute, Carbon Fiber, Full-wrapped	4055698
Cylinder, 4500 psi, 60-minute, Carbon Fiber, Full-wrapped	4055699

SCBA Components and Accessories



BAcomm

The new BAcomm communication system from Draeger Safety offers advanced communication capabilities when using CCBA's. Incorporating a voice amplifier, Draeger's BGcomm system offers distinct speech clarity and volume. The bracket assembly attaches to the facepiece and provides the contact point for the microphone. The internal microphone/bracket assembly serves as the platform for all configurations: voice amplification, radio interface or both. The amplifier locks into position using a set of spring loaded side clips to secure the amplifier on the bracket assembly. The radio interface uses a quick connection positioned on the bracket assembly. Included in the interface system is the earspeaker with a large Push To Talk (PTT) button which is easily activated with a gloved hand. A wide variety of radio connections are available.

The new Lapel Microphone /PTT System is also available for use with the BGcomm.

ORDER INFORMATION

BAcomm Communication System

Amplifier Only	4056798
Radio Interface System (internal microphone, bridge)	4056764
Earspeaker and PTT	4056200
Earspeaker no PTT	4057504

NOTE: Please contact Customer Service for radio specific Lapel Microphone



New BAcomm Lapel Microphone

The new lapel microphone offers increased versatility to the BAcomm communication system. Designed to meet military specifications this rugged lapel microphone operates in two ways. By itself it works as a standard lapel microphone when attached to the radio. When connected to the BAcomm earspeaker, the lapel microphone operates as a Push-to-Talk (PTT) unit. Two large PTT buttons, one on the side and one on the face, offer flexibility and ease of use. A large microphone/speaker allows for crisp, high volume communications when used as a lapel microphone. Located at the base of the lapel microphone is a man-down alarm which can be used to trigger the radio's alarm if the radio has one.

The lapel microphones are radio specific. Contact customer service for part number and price information for your radio needs.



Duffel Bag for SCBA

SCBA Cases

Draeger offers two types of cases to protect the SCBA; a hard-sided orange case and a soft-sided duffel bag. The highly visible, high density polyethylene orange case protects the SCBA from environmental conditions and impact. A wall mount kit for this case is available. The blue cadora nylon duffel bag offers a padded bottom to cushion the SCBA during transit. The duffel bag is perfect for local transport as well as training.

ORDER INFORMATION

SCBA Cases

Rigid Orange for SCBA	4054929
Duffel Bag for SCBA	4054934
Wall Mount for SCBA Case	4054980



Rigid Orange Case for SCBA

New 4-Pull Nomex Hairnet

The new 4-pull hairnet offers comfort and fit. Constructed of Nomex the body of the hairnet will not stretch and mis-shape over time. Elasticized straps permit fast donning and doffing while the 4-pull adjustment allows for a more comfortable fit. The 4-pull adjustment also maintains a better seal and therefore a better fit. Replacement straps are also available.



Drägersorb®

Drägersorb® is used to absorb carbon dioxide (CO₂) in breathing air for firefighting, rescue and mining applications.

Drägersorb® has the following characteristics:

- High abrasion resistance and reduced dust formation even under high dynamic stress.
- Large active inner surface ensuring a high absorption capacity for acidic gases.
- Uniform filling of the absorbent cartridges meaning a reproducible absorption.
- Low breathing resistance due to the hemispherical pellet form and optimum packing density.



Anti-Fog/Clear Pilot

Anti-Fog is used on any Draeger facepiece where fogging of the lens may be an issue. The Draeger "Open Circuit SCBA" have never been plagued by facepiece fogging due to the Flushing delivery of the air from the Lung Demand. The Draeger Rebreathers, BG-4 or 174 have long used Anti-fog. The long duration and the physical characteristics of exhaled breath have ensured a need for Anti-Fog lens treatment. Anti-Fog is designed to reduce the amount of fogging generated within a Rebreather facepiece during a long duration exercise. Proper application of Clear Pilot will ensure maximum protection and clarity of the facepiece lens.

Mask Accessories



CBRN Plus LDV

Certainty in uncertain times; that's what Draeger Safety offers with its CBRN approved AirBoss® Evolution Plus and AirBoss® PSS100 Plus. A simple modification of the lung demand valve enables these units to withstand extremely high concentrations of Weapons of Mass Destruction agents. The LDV cover is extended to fit tightly against the exhalation cover. This allows exhaled air to flush over the back of the diaphragm, removing any toxic agents that may be present. This simple design change enabled Draeger to maintain the high performance of the existing Plus LDV while adding enhanced protection against chemical agents.

Existing SCBA compliant to NFPA 1981, 2002 edition can easily be upgraded to CBRN approval.

CBRN Plus LDV with Quick Release Coupling	3352571
CBRN Plus LDV without Quick Release Coupling	3352572



ORDER INFORMATION

Accessories for the Panorama Nova Masks

Hair Net Head Harness, NFPA	4054930
Hair Net Head Harness, Industrial	4054931
Hair Net Head 4 Pull Harness	4057102
Welding Shield	4053437
Spectacle Kit, Permanent Mount F2	R51548
Spectacle Kit, Removable	4056406
RAPid Adaptor for Draeger Filter Cartridges	4055251
Spectacle Kit Standard Mount	R51548

Spectacle Kits

Carrying Bags

Full Face Bag, Yellow Nylon with Belt Loops	4053847
Full Face Bag, Blue Nylon with Draw String	4055785
Full Face Case, Hard Plastic for Panorama	R51019
Full Face Bag, Cordura, Customized (Min 50)	4055290

Anti-fog Solutions, Alcohol Free

Liquid Gel 50 ml	R52560
Spray 100 ml	R21120

Cleaners / Disinfectants

Alcohol Free wipes, Box of 100	4053845
AirKem A-33, Powder, (40) 1/2 oz. packets	4054085
AirKem A-33, Liquid, 1 Gallon	4056523



RAPid Adaptor

PSS BG-4



The Draeger PSS BG4 is a closed-circuit breathing apparatus that supplies the wearer with safe breathing air for up to 4 hours in IDLH environments. The closed-circuit design of the BG4 is sometimes referred to as a "rebreather". The exhaled air is passed through a canister that "scrubs" the carbon dioxide from the wearer's breath. The dosage system on the cylinder constantly replenishes the scrubbed air with a supply of pure oxygen. As the user's breathing rate increases, additional oxygen is automatically added into the breathing circuit. The BG4 maintains positive pressure in the breathing circuit to protect contaminants from entering into the system.

With its reinforced carbon fiber shell, the BG4 is extremely robust and able to withstand even the toughest applications. The low profile makes it easy to use inside chemical protective suits. The ergonomic backpack and padded straps make the unit comfortable to wear for extended durations.

Many of the applications in which the BG4 is used are long duration missions that last over many hours or several days, the system can be turned around quickly and used again. The BG4 is built on a modular system that allows the breathing apparatus to be easily disassembled, cleaned, replenished and quickly returned to service.





The Sentinel II is a fully integrated monitoring device that is now standard on all BG4's. The sensor continuously measures the pressure in the oxygen cylinder. The Sentinel II automatically calculates and displays real time to low pressure alarms based on the user's actual consumption rate. The integrated warning device alerts the wearer with two high-intensity flashing lights and attention demanding (>95 dBA) audible alarm.

All data is recorded and stored in the Sentinel II (time/date, cylinder pressure, breathing rate, alarm activation and thermal absorption temperature) and can be downloaded at a later time.

The Draeger BG4 is ideally suited for longer duration operations such as Domestic Preparedness, Haz-Mat response, mine/tunnel rescue, and other operations where the duration of a conventional SCBA is not enough to complete the mission. The BG4 meets the needs of the toughest and longest assignments.

ORDER INFORMATION

The BG4 is available in various configurations with several options and accessories depending on your application. Contact your local Draeger representative for more information.

Test Equipment



Aerotest Kits

The Aerotest Kits allow you to measure the quality of breathing air on the spot. The kits come complete with Draeger-Tubes® for measuring CO, CO₂, Oil Mist and Water Vapor. There are two Aerotest kits available, the "Alpha", for measuring low-pressure air sources such as those used for supplied air respirators and the "HP", a high-pressure kit that can be connected directly to compressors or cylinders. The Simultaneous test manifold allows all four gas and vapor tests to be run at the same time that results in a very short analysis time (< 5 min). Additional gases and vapors can be measured with the accuro® Pump and Draeger-Tubes®.

ORDER INFORMATION

Aerotest Simultan Alpha (< 175 psi)	4056747
Aerotest Simultan HP (< 4500 psi)	4055986



Zephyr-Air

The Draeger Zephyr-Air Sample Kits enable you to get a complete National Institute Standards and Technology (NIST) traceable laboratory analysis done to your compressed breathing air samples. The Zephyr-Air Kit comes complete. Simply hook it up to your compressor and fill up the sampling container with the air to be analyzed. Place the sample container in the pre-postage paid container and send it off to the Draeger laboratory for analysis. Advanced gas chromatography, gravimetric analysis, and a thin film hygrometer are used to precisely analyze the sample. The official results from an American Association of Laboratory Accreditation will be sent in days.

ORDER INFORMATION

Zephyr-Air Compressed Air Sample Kit	4056121
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FitTester 3000

The FitTester 3000 is a Quantitative Mask Fit Tester. It is a highly specialized instrument which utilizes the scientifically proven and patented "CNP" (Controlled Negative Pressure) technology to measure respirator leakage directly. The FitTester 3000 is now written into the Federal Regulations governing fit testing (29 CFR 1910.134).

The CNP based fit tester has a +/- 3% flow measurement capability. Its increasing level of precision and repeatability, achieved with the "CNP" technology enables very accurate testing respective of the environment or human variables.

ORDER INFORMATION

FitTester 3000 without printer	4057110
FitTester 3000 with printer	4057051



FitTest Adaptors

40mm Threaded Masks	4056318
Positive Pressure Masks	4056319
X-Plore® Masks	4057023
P100 for threaded & positive pressure masks	4055497

Test Equipment



PosiTest3

The PosiTest3 automatically determines the SCBA's operation by using dynamic tests and functional checks that quantitatively determine whether SCBA's meet NIOSH and NFPA requirements. Then stores the test results right on your personal computer. Each SCBA manufactured has specific software and is recommended for testing on the PosiTest3.

Details on the evaluation and dynamic performance test:

- Mask leak check
- Exhalation valve opening pressure
- Static mask pressure
- Breathing resistance at standard (40 LPM) work- rate
- Breathing resistance at maximum (100 LPM) work-rate
- Bypass flow-rate pressure gauge accuracy
- Low pressure alarm activation and redundant alarm test
- Optional medium pressure transducer lets you dynamically test first stage regulator performance

ORDER INFORMATION

Positest3	4056465
Positest3 Software for Draeger SCBA	4056071



RZ-50e Test Set

The RZ-50e Test Set is an economical combination test set that analyzes all of the functional parameters and mask leak tightness of the BG4 Closed Circuit Breathing Apparatus. The Electronic Flow Meter and Electronic Pressure Gauges provide accuracy in these tests. The RZ-50e is compact and portable and tests all functions of the BG4 quickly and easily. The RZ-50e assures the user that the BG4 is ready to safely don and use.

The RZ-50e Test Set tests the following parameters of the BG4:

- Mask Leak Tightness
- Low Pressure Warning Threshold
- Inhalation and Exhalation Valves
- Drain Valve and By-Pass Valve Test
- Positive Pressure Leak Test
- High Pressure Leak Test
- Constant Dosage
- Minimum Valve and Relief Valve Activation
- Complete Monitron System Check

ORDER INFORMATION

RZ-50e Tester	4056732
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DrägerService

LET DRAEGER-SERVICE PROVIDE EXPERT CARE FOR YOUR RESPIRATORY PROTECTION EQUIPMENT. DRAEGER HAS STRATEGICALLY LOCATED SERVICE CENTERS ACROSS NORTH AMERICA IN PITTSBURGH PA, LOS ANGELES CA, HOUSTON TX, MISSISSAUGA ON, MIAMI, FL, SUDBURY ON, MONTREAL QU, EDMONTON AB, AND QUERETARO, MEXICO. SERVICES ARE AVAILABLE AT THESE LOCATIONS OR ON-SITE.

DRAEGERSERVICE SUPPORTS WITH A FULL RANGE OF TECHNICAL SERVICES INCLUDING FLOW TESTING, HYDROTESTING, CYLINDER FILLING, MAINTENANCE, UPGRADES AND REPAIRS. SERVICES CAN BE ARRANGED ON AN AS NEEDED BASIS, OR THROUGH MAINTENANCE AGREEMENTS AND SERVICE CONTRACTS. OUR ALL-ENCOMPASSING TOTAL CARE PACKAGES PROVIDE ALL SERVICES, INCLUDING LOANER UNITS WHEN NEEDED.

Training

The best safety equipment is only as good as the knowledge of those who use it. Let Draeger train your staff on the proper use and maintenance of all of our products. We offer both operator and technician level courses at our service facilities or at your site. Students are provided with the appropriate training materials such as posters, videos, CDs, books and/or schematics depending on the training given. All courses are available with certification.

Support

Our worldwide experience obtained from many different industries, applications, and environmental conditions are available to all Draeger customers. The Respiratory Protection Product Management staff in Pittsburgh can assist you through the challenges and questions you may encounter in your application and recommend the proper equipment for the job at hand.



Rental

For many applications and situations, purchasing gas detection or respiratory protection equipment may not be the most efficient or cost-effective solution. The complete range of Draeger Safety products are available for rental. We offer competitive pricing; convenient daily, weekly or monthly terms; expertly maintained equipment; and Rent-to-Own options.



Gas Detection Products



WHETHER YOU ARE ENTERING CONFINED SPACES, MONITORING EMPLOYEE EXPOSURES, DETERMINING WHAT LEVEL OF RESPIRATORY EQUIPMENT IS REQUIRED, OR IDENTIFYING UNKNOWN CHEMICALS AT A HAZ-MAT SCENE, DRAEGER HAS THE GAS DETECTION EQUIPMENT YOU NEED.



Draeger-Tubes®

The Draeger-Tube® system is the most popular form of gas and vapor measurement in the world. The system is easy to use, produces quick results, and offers the most comprehensive (over 1000) choice of hazards detected. Most Draeger-Tubes® are designed to measure in the TLV range and are used for monitoring employee exposures or selecting the proper respiratory protection. Other tubes measure an entire chemical family and are used for identifying an unknown substance in emergency response situations. Draeger-Tubes® are also used for measuring indoor air quality, contaminants in process gases, fugitive emissions, and in a wide variety of other gas detection applications.



Draeger-CMS®

The CMS is an electronic version of the ever-popular Draeger-Tube®. It consists of a measuring "Chip" and Analyzer. The simple three-step operation and digital display readout of the concentration makes this gas measuring device very easy to use. It can be operated with one hand, and the large switch can be moved while wearing protective gloves. The analysis by CMS is totally automated and consecutive measurements are easy to make.



Portable Instruments

Draeger manufactures a wide range of versatile single and multi-sensor gas measuring devices. These instruments offer continuous and simultaneous detection of toxic and flammable hazards. A digital display informs the user if hazardous levels of gases and vapors are present. Audible, visual and vibrating alarms warn the user of the hazard that is present. Options like remote sampling pumps, a variety of carrying cases, software to document exposures, and different power supplies are available to meet your exact requirements.

Breathing Gas Systems



THIS DIVISION OF DRAEGER PROVIDES SEVERAL DIVERSE PRODUCTS AND TAILOR MADE SYSTEMS RELATED TO RESPIRATORY PROTECTION EQUIPMENT.

Breathing Air Compressors



Fill your SCBA cylinders with our breathing air compressor systems. We offer a range of solutions from portable units to complete fill stations including high-pressure compressors, fragmentation shields, cascade cylinder banks, and control panels. Our 7 cfm and 10 cfm portable compressors are especially popular with small fire stations and dive centers. Our gas and diesel engine models offer air filling capabilities where access to an electrical power supply is limited.

AIR/GAS Filling & Supply Systems



Custom designed installations and trailer-mounted systems are our specialty. We design and install breathing air and gas supply systems for use by fire departments, military, diving operations and a variety of other special applications. Our custom trailer systems have a variety of features such as SCBA bottle filling with air, low pressure air supply direct to airline users, oxygen filling or SCUBA bottles and mix gas supply for diving equipment. Special applications include air supply for protective suit users and "fly-away" containers which can be quickly deployed to remote locations.

Booster Pumps



Our compact high-pressure booster pumps are designed to fill your BG-4 and other oxygen or mix-gas apparatus cylinders. One to four cylinders may be filled quickly by these electrically driven pumps. By properly cascading the two supply cylinders, gas can be consumed to a very low residual pressure, leading to cost savings for the user.



Vehicle Filter Systems

The Draeger vehicle filtration system will protect its occupants from the outside atmosphere by filtering the air and maintaining a positive pressure inside the passenger cabin. Where the Draeger C420 PAPR respirators provide respiratory protection to a single individual, our Vehicle Filter Systems protect up to several occupants inside vehicle. The air systems afford maximum protection for vehicle operators by being independent of the ambient air. Our vehicle filter systems provide protection against wide range of contaminants from toxic to chemical warfare substances.



Training Galleries

Draeger Safety Inc.'s training systems provide ideal conditions for breathing apparatus users to experience physical and mental stress common to emergency situations in controlled environment.

Training galleries can be supplied as fixed or mobile systems and incorporate obstacles and distracting effects such as smoke, noise & lights. The gallery is set up on a grid system and can be easily reconfigured so the training course is different each time. A control section allows constant monitoring of the trainees' via video cameras and intercom systems.

Draeger Safety Systems is taking firefighter training to a whole new level with the acquisition of Fire Training Systems (FTS) and Swede Survival Systems. Draeger Safety Systems provides the fire service with one source for an entire range of training systems and equipment emphasizing:

- Confidence in their skills and equipment under stressful situations.
- Teamwork built with practice and repetition of skills and tactics
- Knowledge gained through experience with fire behavior
- Draeger improves the training experience for all firefighters.



Flash Over Training containers allow fire fighters to experience the power of an actual flash over under controlled circumstances.

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DrägerService
DrägerService offers regular inspection and training. We do everything to ensure your equipment will be repaired and back in operation as quickly as possible.