

# Dräger X-am® 8000 Multi-Gas Detector

Clearance measurement was never this easy and convenient: The 1 to 7 gas detector detects toxic and flammable gases as well as vapors and oxygen all at once– either in pump or diffusion mode. Innovative signaling design and handy assistant functions ensure complete safety throughout the process.



### Dräger X-am® 8000

Switch easily between pump and diffusion mode

Impact detection informs you of severe mechanical stresses

Assistants for clearance measurement, leak detection, sensor selection and benzene-specific testing with the PID (pre-tube)

Optional Bluetooth® module to connect with the Dräger X-Site Live Monitoring solution

Bluetooth® is a registered trademark of Bluetooth SIG, Inc.



Glowing green D-Light (optional) indicates: tested and ready for use

Five slots for DrägerSensors® to measure up to seven gases. Two high-performance PID sensors.

Easy-to-read color display with zoom function

Inductive charging

Flammable gases and vapors: methane, propane, oxygen as well as selected toxic gases

### **Benefits**

#### **Multi-gas detector**

- 1- to 7 gas detection device
- for clearance measurement
- · detection of toxic and combustible gases as well as vapors and oxygen

#### Specially designed for use with a pump, optimized for clearance measurement

The Dräger X-am® 8000 is equipped with a very powerful pump. It can be connected with hoses of up to 45 meters in length. A pump adapter makes it easy to switch between diffusion and pump mode at any time. This means the pump is only operated when you actually need it. That saves energy, reduces wear and tear, and extends the lifespan of the pump.

Handy and durable, the Dräger X-am® 8000 is intuitive to operate single-handedly using three function keys. The easy-to-read color display clearly lays out all the information for you.

The multi-gas detector also features advanced software functions including change of measurement gas for PID, CatEx and IR sensor during operation. This is based on an on-board library and a convenient assistant to hide unused sensor channels and adapt the flexible instrument to the measurement task.

Standard accessories include a sturdy shoulder strap so you can comfortably carry the X-am 8000. Thanks to its compact and robust construction, the device can withstand even the harshest conditions.

#### Clearance measurement, release and documentation in no time

The X-am 8000 effectively supports various applications with specially developed assistant functions that guide you through each process step-by-step. During clearance measurement, for example, the smart assistant calculates the necessary flooding time for the device and probe (FKM hose) based on parameters such as measuring gases, temperature limits, and the indicated hose length. Additionally, customer defined flooding times are also possible.

When monitoring for potentially high methane concentrations, an optional automatic measurement range switch makes it easier to take a reading: If the Cat-Ex sensor measures values above 100 % LEL, the display switches to the range of 0 to 100 vol %. A similar function to measure in % LEL and vol % simultaneously is also available for the IR EX ES sensor.

The DrägerSensor CatEx 125 PR Gas offers a special variant for the measuring gas methane, which enables measurements in the ppm range.

#### Clear signaling design

The signal system of the Dräger X-am 8000 is based on a clear color code:

- Red light = gas alarm
- Yellow light = device-related alarm, e.g. low battery
- Green light = device is ready for use

The green glow of the D-Light allows you to see from a distance whether the device has been properly tested and is ready for use.

In case of an alarm, the X-am 8000 alerts you with colorful alarm LEDs, a loud horn (100 dB at a distance of 12 in or

### **Benefits**

30 cm), and clearly palpable vibration. Optionally, four preset hazard symbols are available for the display which explicitly indicate the presence of explosive or toxic gas hazards, for example. This allows the user to easily recognise the type of hazard based purely on the symbol displayed.

The X-am 8000 is equipped with an impact detection system. The event report indicates whenever severe mechanical impacts have occurred that might result in functional impairments of the device or the sensors. These are also documented in the data logger. With this information, a device attendant can specifically check the device. As an option the instrument can be locked after a detected impact as well.

#### **Economical Fleet Management**

Bumptest and calibration are carried out simply and quickly using the Dräger X-dock® calibrating station. Its low test gas consumption keeps operating costs to a minimum.

Its reporting function and numerous other useful features make the GDC asset management system a smart addition to any fleet management operation.

#### Specialist for high and low hydrocarbon concentrations

To measure hard-to-detect hydrocarbons, you can fit the Dräger X-am 8000 with one of two high-performance PID sensors. The PID HC covers a measurement range of 0 to 2,000 ppm (isobutylene). The PID LC ppb is particularly suited for a measurement range of 0 to 10 ppm (isobutylene) with a high resolution in the range below 1 ppm.

For benzene-specific measurements, the X-am 8000 can be used with a pre-tube. The advantage: you only need one measuring device for this application, which significantly reduces the costs of purchasing, maintaining and transporting devices in use. The use of the pre-tubes is supported by a built-in assistant.

#### Inductive charging protects against wear and tear

The X-am 8000 features inductive charging. This makes it easier to operate and increases the lifespan of the device. Issues like corrosion and contact problems in the charging cradle are a thing of the past. You can charge (outside of explosion-hazard zones) and measure at once, e.g, when in use inside vehicles or on machinery.

The charging cradle can connect with one another, taking up minimal space, and are compatible with existing Dräger X-am® series cradles.

# **Details**







Shoulder strap

Pump adapter

Pre-tube holder

### Comparison of Dräger X-am® 3500 and Dräger X-am® 8000

| Features   | Dräger X-am® 3500 | Dräger X-am <sup>®</sup> 8000      |
|--|-------------------|------------------------------------|
| Number of measuring gases  | 1 to 4            | 1 to 7                             |
| Internal pump, activation with pump adapter  | Yes               | Yes                                |
| Inductive charging   | Yes               | Yes                                |
| Customer-specific settings when ordering   | No                | Yes                                |
| Shoulder strap included as standard  | No                | Yes                                |
| Catalytic bead sensor DrägerSensor® CatEx 125 PR   | Yes               | Yes, configurable                  |
| Electrochemical (EC) DrägerSensors®:<br>XXS O <sub>2</sub> , XXS CO LC, XXS H <sub>2</sub> S LC, XXS NO <sub>2</sub> , XXS SO <sub>2</sub> | Yes               | Yes, configurable                  |
| Electrochemical (EC) DrägerSensors®: Other sensors/special gases   | No                | Yes, configurable                  |
| Infrared (IR ES) DrägerSensors® Dual IR Ex/CO <sub>2</sub> (HC), IR-Ex, IR-CO <sub>2</sub>   | No                | Yes, configurable                  |
| IR Ex sensor: 2 gases/measurement ranges configurable  | No                | Yes, configurable                  |
| Photoionization detector (PID) DrägerSensors®: PID HC, PID LC ppb  | No                | Yes, configurable                  |
| Automatic measurement range switching for the catalytic bead sensor, measuring gas: methane  | No                | Yes, configurable                  |
| Assistant: Confined Space, Leak Search, Sensor Selection, Benzene/Pre-Tube   | No                | Yes, only when a pump is installed |
| Toxic twins: CO and HCN signal processing  | No                | Yes                                |
| Bluetooth®1  | No                | Option                             |

Dräger offers two different multi-gas detection devices with internal pump: Dräger X-am® 8000 and Dräger X-am® 3500. The different features of both devices are summarized in the table above.

### **Accessories**



#### **Pedestal**

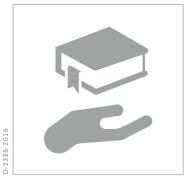
Use to stand the device upright for area monitoring. The pedestal can be used with or without a shoulder strap.

### **Services**



#### **Product Service**

Our product service provides support with different service packages—in our workshops or directly on your premises. Care, maintenance and servicing are crucial for safety and reliability—but careful maintenance and care are a must, even when it comes to commercial considerations. Preventive checks, ongoing care and use of original replacement parts improve the longevity of your investment.



#### **Training**

The Dräger Academy has imparted well-founded and practical knowledge for over 40 years. With over 110 authorized trainers and more than 600 available topics, we conduct more than 2,400 training sessions per year. We equip your people with the knowledge they need for real-life situations and make sure they will be able to recall and readily apply that knowledge in their everyday work—especially in stressful situations. If you have specific needs, we can develop a customized training program to meet your individual requirements.



#### **Rental Service**

Whether it's to alleviate a temporary shortage of equipment or to procure equipment for specific applications; DrägerRental Service is an economical alternative to purchasing. Choose from our 65,000 piece inventory as well as a wide range of additional services available upon request.



#### **On-site Safety Service**

Rental shop, personnel services or comprehensive safety management: Our on-site safety services provide you with support for all projects involving special safety challenges— and of course also during your day-to-day operations.

### **Technical Data**

| Dimensions (H x W x D)      | 7 x 3 x 1.7 in (179 x 77 x 42 mm)  |   |
|-----------------------------|--|---|
| Weight                      | Approx. 17.5 oz (495 g), depending on sensor configuration, without strap, without pump Approx. 19 oz (550 g), depending on sensor configuration, without strap, with pump |   |
| Housing                     | Durable two-component housing  |   |
| Display                     | High-contrast color display  |   |
| Temperature                 | -4 to 122 F (-20 to 50 C)  |   |
| Pressure                    | 700 to 1,300 hPa (measuring function)<br>800 to 1,100 hPa (use in explosion-hazard areas)  |   |
| Relative humidity           | 10 to 90 % (short-term up to 95 %) r.h.  |   |
| Alarms                      | Visual:  | 3 LED 'red' (gas alarms),<br>3 LED 'yellow' (device alarms) |
|                             | Acoustic   | Multi-tone, typically 100 dB at 12 in (30 cm)               |
|                             | Vibration  |   |
| Ingress protection class    | IP 68  |   |
| Energy supply               | Lithium-ion battery, rechargeable, inductive charging  |   |
| Operating times (Diffusion) | With CatEx and 3 EC sensors  | Typically 24 hours  |
|                             | With IR and 3 EC sensors   | Typically 22 hours  |
|                             | With 3 EC sensors  | Typically 120 hours   |
|                             | With CatEx, PID and 3 EC sensors   | Typically 17 hours  |
|                             | With IR, PID and 3 EC sensors  | Typically 16 hours  |
|                             | With CatEx-, IR- and 3 EC sensors  | Typically 14 hours  |
|                             | PID only   | Typically 42 hours  |
| Charging times              | Typically 4 hours after use during a shift of max. 10 hours  |   |
| Start-up times              | Typically <60 seconds for standard se  | nsors   |
| Data storage                | 24 MB, e.g. at 10 minutes per hour of gas exposure with measuring values changing by the second on all 7 channels: approx. 400 hours                                       |   |
| Pump operation              | Max. hose length 148 ft (45 m)   |   |
| Approvals                   | Marking Explosion Protection:  |   |
|                             | ATEX />IECEx   | M1,    1G   |
|                             |  | Ex da ia I Ma, Ex da ia IIC T4 Ga                           |
|                             | cCSAus   | Class I, Zone 0, AEx da ia IIC T4 Ga                        |
|                             |  | Class II, Div. 1, Gr. E, F, G                               |
|                             |  | C22.2 No. 152, ANSI-ISA 12.13.01:2000                       |
| Manufacturer's warranty     | 3 years for the device   |   |
|                             | 1 year for the power supply  |   |
|                             | Sensors: see DrägerSensor® & Portabl   | e Instruments Handbook                                      |

| Dräger X-am° 8000   |   | Order no.   |
|---|---|---|
| Dräger X-am® 8000 consists of: Device with power supply (Lithium-ion battery), data logger, shoulder strap and charger (optional). A fully functioning device requires up to 5 sensors and an optional integrated pump. |   | 83 25 800   |
| Instruction for use on request (please in following languages:<br>DA, FI, NO, SV, PL, HR, SL, SK, CS, BG, Re  | dicate when ordering), also available in the O, HU, EL, TR, KO                  | 90 33 656   |
| Instructions for use on request also available in the following languages: LT, LV, ET   |   | 93 00 108 available as download on the website: www.draeger.com/ifu |
| Technical handbook available in the following languages: DE, EN, FR, ES, RU   |   | 90 33 665 available as download on the website: www.draeger.com/ifu |
| Selectable device options when ordering   | ng  |   |
|   | RFID transponder  |   |
|   | (The charging cradle/power plug can be deselected during the ordering process.) |   |
| Slot 1:<br>PID or LEL-IR/CO2 HC   | Slot 2:<br>IR or CatEx sensor   | Slots 3–5:<br>Electrochemical sensors (XXS format)                  |

| Sensors                                    | Measuring range                                   | Resolution   | Order no. |  |
|--|---|--|-----------|--|
| Cat-Ex 125 PR <sup>1, 2</sup>              | 0-100 % LEL                                       | 1 % LEL  | 68 12 950 |  |
|  | 0-100 vol % CH <sub>4</sub>                       |  |           |  |
| Cat-Ex 125 PR Gas <sup>1</sup>             | 0-100 % LEL                                       | 1 % LEL  | 68 13 080 |  |
|  | 0-100 vol % CH <sub>4</sub>                       |  |           |  |
|  | 0-50000 ppm CH₄L                                  | 10ppm, Detection limit 50ppm                         |           |  |
| Dual IR Ex/CO <sub>2</sub> ES <sup>1</sup> | 0-100 % LEL                                       | 1 % LEL  | 68 51 880 |  |
|  | 0–100 vol % Methane,<br>Propane, Ethene, n-Butane | 0.1 vol % CH <sub>4</sub>                            |           |  |
|  | 0-5 vol % CO <sub>2</sub>                         | 0.01 vol % CO <sub>2</sub> or 50 ppm CO <sub>2</sub> |           |  |
| Dual IR Ex/CO <sub>2</sub> HC <sup>1</sup> | 0-100 % LEL                                       | 1 % LEL  | 68 00 276 |  |
|  | 0–100 vol % Methane,<br>Propane, Ethene, n-Butane | 0.1 vol % CH <sub>4</sub>                            |           |  |
|  | 0-100 vol % CO <sub>2</sub>                       | 0.1 vol %  |           |  |
| IR Ex ES <sup>1</sup>                      | 0-100 % LEL                                       | 1 % LEL  | 68 51 881 |  |
|  | 0–100 vol % Methane,<br>Propane, Ethene, n-Butane | 0.1 vol % CH <sub>4</sub>                            |           |  |
| IR CO <sub>2</sub> ES                      | 0-5 vol % CO <sub>2</sub>                         | 0.01 vol % CO <sub>2</sub> or 50 ppm CO <sub>2</sub> | 68 51 882 |  |
| PID LC ppb (10.6 eV) <sup>3</sup>          | 0.05-10 ppm Isobutene 0-5<br>ppm Benzene          | depending on gas value, starting with 10 ppb         | 68 13 500 |  |
| PID HC (10.6 eV) <sup>3</sup>              | 0-2,000 ppm Isobutene<br>0-1,000 ppm Benzene      | depending on gas value,<br>starting with 0.1 ppm     | 68 13 475 |  |
| XXS O <sub>2</sub> <sup>2</sup>            | 0-25 vol %  | 0.1 vol %  | 68 10 881 |  |

| XXS O <sub>2</sub> PR                   | 0-30 vol %   | 0,1 vol %                | 68 00 530 |
|---|--|--------------------------|-----------|
| XXS O <sub>2</sub> 100                  | 0-100 vol %  | 0.5 vol %                | 68 12 385 |
| XXS O <sub>2</sub> /H <sub>2</sub> S LC | 0-25 vol % O <sub>2</sub> 100 ppm H <sub>2</sub> S | 0.1 vol % 0.1 ppm        | 68 14 137 |
| XXS CO LC <sup>2</sup>                  | 0-2,000 ppm  | 1 ppm                    | 68 13 210 |
| XXS CO HC                               | 0-10,000 ppm                                       | 5 ppm                    | 68 12 010 |
| XXS CO / H <sub>2</sub> compensated     | 0-2,000 ppm CO                                     | 2 ppm                    | 68 11 950 |
| XXS H₂S LC²                             | 0-200 ppm  | 0.1 ppm                  | 68 11 525 |
| XXS H₂S HC                              | 0-1,000 ppm  | 2 ppm                    | 68 12 015 |
| XXS CO LC / H <sub>2</sub> S LC         | 0-2,000 ppm CO/                                    | 1 ppm CO                 | 68 13 280 |
|   | 0-100 ppm H <sub>2</sub> S                         | 0.1 ppm H <sub>2</sub> S |           |
| XXS CO LC / O <sub>2</sub>              | 0-2,000 ppm CO/                                    | 1 ppm CO                 | 68 13 275 |
|   | 0-25 vol %   | 0.1 vol % O <sub>2</sub> |           |
| XXS NO                                  | 0-200 ppm  | 0.1 ppm                  | 68 11 545 |
| XXS NO <sub>2</sub>                     | 0-50 ppm   | 0.1 ppm                  | 68 10 884 |
| XXS NO <sub>2</sub> LC                  | 0-50 ppm   | 0.02 ppm                 | 68 12 600 |
| XXS SO <sub>2</sub>                     | 0-100 ppm  | 0.1 ppm                  | 68 10 885 |
| XXS PH <sub>3</sub>                     | 0-20 ppm   | 0.01 ppm                 | 68 10 886 |
| XXS PH₃ HC                              | 0-2,000 ppm  | 1 ppm                    | 68 12 020 |
| XXS HCN                                 | 0-50 ppm   | 0.1 ppm                  | 68 10 887 |
| XXS HCN PC                              | 0-50 ppm   | 0.5 ppm                  | 68 13 165 |
| XXS NH <sub>3</sub>                     | 0-300 ppm  | 1 ppm                    | 68 10 888 |
| XXS CO <sub>2</sub>                     | 0-5 vol %  | 0.1 vol %                | 68 10 889 |
| XXS CI <sub>2</sub>                     | 0-20 ppm   | 0.05 ppm                 | 68 10 890 |
| XXS H <sub>2</sub>                      | 0-2,000 ppm  | 5 ppm                    | 68 12 370 |
| XXS H₂ HC                               | 0-4 vol %  | 0.01 vol %               | 68 12 025 |
| XXS OV                                  | 0-200 ppm  | 0.5 ppm                  | 68 11 530 |
| XXS OV-A                                | 0-200 ppm  | 1 ppm                    | 68 11 535 |
| XXS Amine                               | 0-100 ppm  | 1 ppm                    | 68 12 545 |
| XXS Odorant                             | 0-40 ppm   | 0.5 ppm                  | 68 12 535 |
| XXS COCl <sub>2</sub>                   | 0-10 ppm   | 0.01 ppm                 | 68 12 005 |
| XXS Ozone                               | 0-10 ppm   | 0.01 ppm                 | 68 11 540 |

#### HC = High concentration

<sup>&</sup>lt;sup>3</sup> To upgrade an existing instrument with PID, please order also: Spare part set sensor absorber 68 13 767

| Power supply unit            |                      |           |
|------------------------------|----------------------|-----------|
| Battery (incl. back housing) | included as standard | 83 26 817 |

<sup>&</sup>lt;sup>1</sup> Special calibrations possible for the Ex sensors (Standard: methane).

 $<sup>^{2}</sup>$  A five-year manufacturer's warranty applies to these sensors. Legal rights accruing from defects remain unaffected.

| Charging accessories   |   |           |
|--|---|-----------|
| Inductive charger for charging 1 device  | included as standard, deselectable  | 83 25 825 |
| Adapter for power plug   |   | 83 25 736 |
| Power plug for charging 1 device   | included as standard, deselectable  | 83 16 997 |
| Power plug 100-240 VAC; 1.33 A, for charging up to 5 devices                     | requires adapter (83 25 736)  | 83 21 849 |
| Power plug 100-240 VAC; 6.25 A, for charging up to 20 devices                    | requires adapter (83 25 736)  | 83 21 850 |
| Vehicle connector cable 12/24 V for charging 1 device                            |   | 45 30 057 |
| Vehicle connector cable 12/24 V DC for charging up to 5 devices                  | requires adapter (83 25 736)  | 83 21 855 |
| Vehicle mount  | requires adapter for power plug (83 25 736) and vehicle connector cable 12/24 V DC (83 21 855)            | 83 27 636 |
| Kit vehicle charger  | with power supply (83 21 855), adapter (83 25 736) and mounting kit (83 27 636)– w/o inductive power unit | 83 28 283 |
| Pump accessories  Dust and water filter for pump inlet                           | included in device  | 83 19 364 |
| Dust and water filter fpr pump inlet (packa                                      | ge of 20 filter)  | 37 05 997 |
| Pump adapter   | included in device  | 83 26 820 |
| Accessories for Photoionization Detector (PID) Pre-tube holder                   |   | 68 13 769 |
| Pre-tube benzene (package, 10 tubes)   |   | 81 03 511 |
| Pre-tube humidity (package, 10 tubes)  | -   | 81 03 531 |
| Pre-tube activated carbon (package, 10 tubes)                                    |   | CH 24 101 |
| Tube opener TO 7000  |   | 64 01 200 |
| Leather case set for photoionization detector, incl. Leather case for the device |   | 83 27 639 |
| PID lamp cleaning set  |   | 83 19 111 |
|  |   |           |

| Probes and hose | hoses | and | bes | Pro |
|-----------------|-------|-----|-----|-----|
|-----------------|-------|-----|-----|-----|

| connection for filter is included in order no. 83 19 364 (dust/water filter). | 83 16 530  |
|---|--|
| connection for filter is included in order no. 83 19 364 (dust/water filter). | 83 16 533  |
| connection for filter is included in order no. 83 19 364 (dust/water filter). | 83 28 667  |
|   | 83 25 705  |
|   | 83 25 706  |
|   | 83 25 707  |
|   | 83 28 212  |
|   | 83 25 831  |
|   | 83 25 832  |
|   | 83 27 654  |
| are available. Please contact us.   |  |
|   | order no. 83 19 364 (dust/water filter).  connection for filter is included in order no. 83 19 364 (dust/water filter).  connection for filter is included in order no. 83 19 364 (dust/water filter). |

#### Calibration accessories

| (replaced by 37 20 224) | 83 26 821              |
|-------------------------|------------------------|
|                         |                        |
|                         | 37 20 224              |
|                         | 83 21 893              |
|                         | 83 21 894              |
|                         | 83 21 882              |
|                         | Please contact Dräger  |
|                         | Please contact Dräger. |
|                         |                        |

# Accessories for measured value acquisition and configuration

| Dräger CC Vision               | Freeware (www.draeger.com/software) |
|--------------------------------|-------------------------------------|
| Dräger GasVision Licence Key   | 83 25 646                           |
| USB Dira Dongle / IR interface | 83 17 409                           |
| Holder for USB Dira Dongle     | 83 25 859                           |

#### Other accessories

| Protective rubber boot, removable  |                        | 83 25 858 |
|--|------------------------|-----------|
| Leather case for the device  |                        | 83 27 664 |
| Transport case (empty)   |                        | 83 27 661 |
| Protective Display cover (set of 3)  |                        | 83 26 828 |
| Shoulder strap (complete)  | (included as standard) | 83 26 823 |
| Retractable lanyard  |                        | 83 23 032 |
| Holder for labels (on strap)   | (included as standard) | 83 26 824 |
| Adhesive label for individual inscriptions, for holder on strap, silver (set of 5) |                        | 83 27 645 |
| Adhesive label, blue (set of 5)  |                        | 83 27 646 |
| Adhesive label, red (set of 5)   |                        | 83 27 647 |
| Adhesive label, green (set of 5)   |                        | 83 27 648 |
| Adhesive label, yellow (set of 5)  |                        | 83 27 649 |
| Pedestal for holding device upright, e.g. for area monitoring                      |                        | 83 25 874 |
| Transponder reader for reading the integrated RFID transponder (optional)          |                        | 65 59 283 |
|  |                        |           |

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