

# Dräger X-am<sup>®</sup> 3500 Multi-Gas Detector

The Dräger X-am® 3500 was especially designed for clearance measurements. The 1 to 4 gas detector reliably detects flammable gases and vapours as well as O<sub>2</sub>, CO, H<sub>2</sub>S, NO<sub>2</sub> and SO<sub>2</sub>. The innovative signalling design and extensive range of accessories ensure optimum safety and easy handling.

Switch easily between pump and diffusion mode

Slots for DrägerSensors® to measure up to four gases

Measurement performance approval by external approval body (Europe): Flammable gases and vapours: methane, propane, n-nonane, oxygen as well as selected toxic gases



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

Easy-to-read colour display with zoom function

Inductive charging

## **Benefits**

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

The Dräger X-am 3500 is equipped with a very powerful pump. It can be connected with hoses of up to 45 metres in length. A pump adapter makes it easy to switch between diffusion and pump mode at any time. This means the pump is only operated when you actually need it. That saves energy, reduces wear and tear, and thereby extends the lifespan of the pump.

The performance of selected sensors has been verified by an external approval body within the scope of the measurement performance approval (EN 60079-29-1), for combustible gases and vapours for methane, propane and n-nonane, among others.

Handy and durable, the Dräger X-am 3500 is intuitive to operate single-handedly using three function keys. The easy-to-read colour display clearly lays out all the information for you. Thanks to its compact and robust construction, the device can withstand even the harshest conditions.

### Clear signalling design

The signal system of the Dräger X-am 3500 is based on a clear colour code, in accordance with the requirements of the EN 60079-29-1, EN 45544-1 and EN 50104:

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

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

In case of an alarm, the X-am 3500 alerts you with colourful alarm LEDs, a loud horn (100 dB(A) at a distance of 30 cm), and clearly palpable vibration. Optionally, four preset hazard symbols are available for the display which explicitly indicate the presence of explosive or toxic gas hazards, for example. This allows the user to easily recognise the type of hazard based purely on the symbol displayed.

### **Economical Fleet Management**

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

Its reporting function and numerous other useful features make the Dräger Gas Detection Connect Software a smart addition to any fleet management operation. To identify the devices in the fleet, you can either use tried and tested barcodes or an integrated RFID transponder.

# **Benefits**

### Inductive charging protects against wear and tear

The X-am 3500 features inductive charging. This makes it easier to operate and increases the lifespan of the device. Issues like corrosion and contact problems in the charging cradle are a thing of the past. You can charge (outside of explosion-hazard zones) and measure at once, e.g, when in use inside vehicles or on machinery. The charging cradle can connect with one another, taking up minimal space, and are compatible with existing Dräger X-am® series cradles.

## **Details**







Protective rubber boot



Dräger X-dock® module

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

| Features   | Dräger X-am® 3500 | Dräger X-am® 8000                  |
|--|-------------------|------------------------------------|
| Number of measuring gases  | 1 to 4            | 1 to 7                             |
| Internal pump, activation with pump adapter  | Yes               | Yes, optional                      |
| 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                  |
| Photoionisation 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                                |

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 summarised in the table above.

# Accessories



## Inductive charger

To charge the device inductively

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# Accessories



### Pedestal

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



## Protective rubber boot

Prevents damage and wear in harsh environments. The protective boot can easily be replaced by the user.



## Shoulder strap with adhesive label

With the shoulder strap you can comfortably carry the deivce. The corresponding adhesive label can be marked individually with device specific information, e.g. sensor assortment.

## Services



#### **Product Service**

Our product service department supports you with a range of service packages – in our shops or on site in your plant. Care, servicing and maintenance are key factors when it comes to safety. Diligent maintenance and care is also absolutely necessary from an economics perspective. Preventive checks, service procedures and original replacement parts make your investment last longer.



#### Rental service

From bridging a temporary shortage of equipment to procuring special equipment for applications involving specific requirements: If you only need to cover a temporary higher demand, then Dräger Rental Service is a cost-effective alternative to purchasing, with over 65,000 pieces of rental equipment. Fast, straightforward and with a wide range of additional services available upon request.



### **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 employees with the knowledge required for real-life situations and ensure that the learned material can be recalled and applied reliably – in their everyday work and especially in stressful situations. To meet your needs, we are also happy to develop a customized training program specifically for you.



### **On-Site Safety Services**

Our On-Site Safety Services support you in your day-to-day operations and in any project that is prone to specific safety risks. Benefit from our rental shop, personnel services or even full-service safety management.

# Technical Data

| Dimensions (H x W x D)      | 179 x 77 x 42 mm                            |   |  |
|-----------------------------|---|---|--|
| Weight                      | Approx. 550 g, depending on sensor          | configuration, without strap, with pump                                 |  |
| Housing                     | Durable two-component housing               |   |  |
| Display                     | High-contrast colour display                |   |  |
| Temperature                 | - 20 °C to + 50 °C                          |   |  |
| Pressure                    | 700 to 1.300 hPa (measuring function)       |   |  |
|                             | 800 to 1,100 hPa (use in explosion-h        | nazard 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(A) at 30 cm                                |  |
|                             | Vibration                                   |   |  |
| Ingress protection class    | IP 68                                       |   |  |
| Energy supply               | Lithium-ion battery, rechargeable, ind      | luctive charging  |  |
| Operating times (Diffusion) | With CatEx and 3 EC sensors                 | Typically 24 hours  |  |
| operating times (2 master)  | With 3 EC-sensors                           | Typically 120 hours   |  |
| Charging times              | Typically 4 hours after use during a sl     |   |  |
| Start-up times              | Typically <60 seconds for standard se       |   |  |
| Data storage                |   | f gas exposure with measuring values changing by                        |  |
| Data Storage                | the second on all 4 channels: approx.       |   |  |
| Pump operation              | Max. hose length 45 m                       |   |  |
| <u> </u>                    | <u> </u>                                    |   |  |
| Approvals                   | Marking Explosion Protection:  ATEX / IECEx | I M1, II 1G   |  |
|                             | ATEX / IEGEX                                | Ex da ia I Ma, Ex da ia IIC T4 Ga                                       |  |
|                             | EAC   | PO Ex da ia I Ma X  |  |
|                             | EAC   |   |  |
|                             | -004  | OEx da ia IIC T4 Ga X   |  |
|                             | cCSAus                                      | Class I, Zone 0, AEx da ia IIC T4 Ga                                    |  |
|                             |   | Class II, Div 1, Gr. E, F, G  |  |
|                             | ANIZE                                       | C22.2 No. 152, ANSI-ISA 12.13.01:2000                                   |  |
|                             | ANZEx                                       | Ex da ia I Ma, Ex da ia IIC T4 Ga                                       |  |
|                             | Measurement Performance:                    | Explosion protection according ATEX: EN 60079-29-1 (CatEx 125 PR, CatEx |  |
|                             |   | 125 PR Gas)   |  |
|                             |   | CatEx 125 PR: methane, propane, n-                                      |  |
|                             |   | nonane, etc.  |  |
|                             |   | The following applies to the CatEx 125                                  |  |
|                             |   | PR and approved gas "n-nonane": Only in                                 |  |
|                             |   | conjunction with pump adapter "Nonan",                                  |  |
|                             |   | part number: 3720225  |  |
|                             |   | Oxygen deficieny/excess oxygen:   |  |
|                             |   | EN 50104 (XXS O <sub>2</sub> )  |  |
|                             |   | Toxic gases:  |  |
|                             |   | EN 45544-1, EN 45544-2, EN 45544-3                                      |  |
|                             |   | (XXS H <sub>2</sub> S LC, XXS CO LC)                                    |  |
|                             |   | Software: EN 50271  |  |
|                             | Directives                                  | 2014/34/EU (ATEX)   |  |
|                             |   | 2014/30/EU (EMV)  |  |
|                             |   | 2011/65/EU (RoHS)   |  |
|                             |   | 2014/90/EU (MED)  |  |
|                             | Marine Approval                             | DNV GL  |  |
|                             |   |   |  |

# Ordering Information

| upply (Lithium  | n-ion battery),  |   |   |  |
|---|--|---|---|--|
|   |  |   |   |  |
| , data logger.  |  |   |   |  |
| · ·   |  |   |   |  |
|   | •  |   |   |  |
|   |  | 83 28 412   |   |  |
| Dräger X-am® 3500 Ex, O <sub>2</sub> , H <sub>2</sub> S LC¹ (without charging |  |   |   |  |
| , LO (Without   | onarging   | 00 20   |   |  |
| LC1 (without  | charging equipment)  | 83 28 416   |   |  |
|   |  |   |   |  |
| _5,20 20  | ,gar ondrying  |   |   |  |
| LC, H <sub>2</sub> S LC <sup>1</sup>  | Set (with charging   | 83 28 419   |   |  |
| , 2-  | ,  |   |   |  |
| LC <sup>1</sup> , NO <sub>2</sub> (w  | thout charging   | 83 28 422   |   |  |
| . 2.  | 3 0  |   |   |  |
| LC <sup>1</sup> , SO <sub>2</sub> (w  | ithout charging  | 83 28 424   |   |  |
| - `   |  |   |   |  |
| lso available i   | n the following  | 90 33 668   |   |  |
| uage when or  | dering): DA, FI, NO,   |   |   |  |
| RO, HU, EL, T   | R, KO  |   |   |  |
| also available  | online in the  | Available as dow  | nload on the pr   | oduct website  |
|   |  |   |   |  |
| the following   | languages: DE, EN,   | Available as dow  | nload on the pr   | oduct website  |
|   |  |   |   |  |
| Measuring   | Range  | Resolution  |   | Order No.  |
| 0–100 % U   | EG   | 1 % UEG   |   | 68 12 950  |
| 0-25 vol %  | 1  | 0.1 vol %   |   | 68 10 881  |
| 0-2,000 pj  | om   | 1 ppm   |   | 68 13 210  |
| 0-200 ppm   | 1  | 0.1 ppm   |   | 68 11 525  |
| 0-50 ppm  |  | 0.1 ppm   |   | 68 10 884  |
| 0–100 ppm   | I  | 0.1 ppm   |   | 68 10 885  |
| rranty applies  | to these sensors. Leg  | gal rights accruing   | from defects re   | main unaffected.   |
|   |  |   |   |  |
|   | included as atondard   |   | go os os  | 7  |
| 197   | moidued as Standard  |   |   | 1  |
|   |  |   |   |  |
| device  |  |   |   |  |
|   |  |   |   |  |
| e   |  |   |   |  |
| A, for  | requires adapter (83   | 25 736)   | 83 21 84  | 9  |
|   |  |   |   |  |
| 5 A, for  | requires adapter (83   | 05.700)   | 83 21 85  |  |
|   | tandard in the tandard in | LC¹ (without charging equipment) LC, H₂S LC¹ (without charging  LC¹, NO₂ (without charging  LC¹, NO₂ (without charging  LC¹, SO₂ (without charging  LSo available in the following uage when ordering): DA, FI, NO, RO, HU, EL, TR, KO also available online in the  the following languages: DE, EN,     Measuring Range     0-100 % UEG     0-25 vol %     0-2,000 ppm     0-50 ppm     0-100 ppm     0-100 ppm     order available to these sensors. Legendary applies to these sensors. | standard in the following, IT, NL, RU, ZH, JA thout charging equipment) B LC¹ (without charging equipment) B CC¹ (without charging equipment) B 3 28 414  B 3 28 416 B 3 28 416 B 3 28 418  B 3 28 418  B 3 28 418  B 3 28 419  B 3 28 419  B 3 28 419  B 3 28 419  B 3 28 422  B 3 28 422  B 3 28 424  B 4 3 28 424  B 5 3 28 424  B 5 3 28 424  B 6 3 28 424  B 7 3 28 424  B 8 3 28 424  B 8 3 28 424  B 9 3 3 668  B 9 3 3 668  B 9 3 3 668  B 1 4 4 4  B 1 5 4 5 5 5 5  B 1 5 6 6 7  B 1 6 7 6 7  B 2 7 7 8 7  B 3 28 419  B 3 28 418  B 3 28 416  B 3 28 418  B 3 28 416  B 3 28 418  B 4 18  B 3 28 418  B 4 18  B 3 28 418  B 3 28 418  B 4 18  B 4 18  B 3 28 418  B 4 18  B 3 28 418  B 3 28 418  B 4 18  B 3 28 418  B 4 18  B 3 28 418  B 4 18  B 4 18  B 3 28 418  B 4 18  B | tandard in the following , IT, NL, RU, ZH, JA thout charging equipment) B 3 28 412 B 1C1 (without charging equipment) B 3 28 414  LC1 (without charging equipment) B 3 28 416 B 3 28 418  LC1, H <sub>2</sub> S LC1 (without charging B 3 28 419  LC1, NO <sub>2</sub> (without charging B 3 28 422  B 1C1, SO <sub>2</sub> (without charging B 3 28 424  B 4 3 28 424  B 5 1 2 3 3 3 668  B 6 3 28 424  B 7 3 3 668  B 8 3 28 424  B 8 3 28 424  B 9 0 33 668  B 9 1 8 3 28 424  B 9 0 33 668  B 1 9 1 8 3 28 424  B 2 1 8 3 28 424  B 3 2 8 418  B 3 2 8 419  B 3 2 8 418  B 3 2 8 419  B 3 2 8 419  B 3 2 8 418  B 3 2 8 419  B 3 2 8 418  B 3 2 8 418  B 3 2 8 419  B 3 2 8 418  B 3 2 8 419  B 3 2 8 419  B 3 2 8 418  B 3 2 8 419  B 3 2 8 418  B 3 2 8 419  B 3 2 8 418  B 3 2 8 419  B 3 2 8 419  B 3 2 8 418  B 3 2 8 418  B 3 2 8 419  B 3 2 8 418  B 3 2 8 419  B 3 2 8 418  B |

# Ordering Information

| Vehicle connector cable 12/24 V for                       |   | 45 30 057             |
|---|---|-----------------------|
| Charging 1 device  Vehicle connector cable 12/24 V DC for | raquiras adaptor (92.95.726)  | 83 21 855             |
| charging up to 5 devices                                  | requires adapter (83 25 736)  | 03 21 033             |
| Vehicle mount   | requires adapter for power plug   | 83 27 636             |
| Tomore meant  | (83 25 736) and vehicle connector cable   | 35 27 333             |
|   | 12/24 V DC (83 21 855)  |                       |
| Kit vehicle charger                                       | with power supply (83 21 855), adapter  | 83 28 283             |
|   | (83 25 736) and mounting kit  |                       |
|   | (83 27 636) – w/o inductive power unit  |                       |
| Pump accessories  |   |                       |
| Dust and water filter for pump inlet                      | included in device when pump option is  | 83 19 364             |
| Dust and water litter for pump litter                     | selected  | 03 19 304             |
| Dust and water filter for pump inlet                      |   | 37 05 997             |
| (set of 20)   |   |                       |
| Pump adapter  | included in device when pump option is selected                                 | 83 26 820             |
| Pump adapter "Nonane"                                     | Required if the measurement performance   | 37 20 225             |
|   | approval according to EN 60079-29-1 is  |                       |
|   | required for the CatEx for measurement  |                       |
|   | gas "Nonane".   |                       |
| Probes and hoses  |   |                       |
| Telescopic probe 100                                      | connection for filter is included in order no.                                  | 83 16 530             |
|   | 83 19 364 (dust/water filter)   |                       |
| Telescopic probe 150, stainless steel                     | connection for filter is included in order no.                                  | 83 16 533             |
|   | 83 19 364 (dust/water filter)   |                       |
| GP600 probe (plastic), with adapter                       | connection for filter is included in order no.<br>83 19 364 (dust/water filter) | 83 28 667             |
| 5 m FKM hose, 3.2 mm, with adapters                       |   | 83 25 705             |
| 10 m FKM hose, 3.2 mm, with adapters                      |   | 83 25 706             |
| 20 m FKM hose, 3.2 mm, with adapters                      |   | 83 25 707             |
| 45 m FKM hose, 3.2 mm, with adapters                      |   | 83 28 212             |
| Float probe EPP, incl. 3 m hose, 3.2 mm                   |   | 83 25 831             |
| Float probe EPP, incl. 10 m hose, 3.2 mm                  |   | 83 25 832             |
| Float probe (transparent), with adapter                   |   | 83 27 654             |
| Additional probes, hoses and accessories a                | re available. Please contact us.  |                       |
| Calibration accessories                                   |   |                       |
| Dräger X-am® 3500/8000 calibration                        | replaced by 37 20 224   | 83 26 821             |
| adapter   |   |                       |
| Dräger X-am® 3500/8000 calibration                        |   | 37 20 224             |
| adapter 2.0   |   |                       |
| Dräger X-dock® Module Dräger                              | can also be used with X-am® 3500  | 83 21 893             |
| X-am® 8000  |   |                       |
| Dräger X-dock® Module Dräger                              | can also be used with X-am® 3500  | 83 21 894             |
| X-am® 8000+ charging                                      |   |                       |
| Dräger X-dock® 5300 (Dräger X-am® 8000)                   | can also be used with X-am® 3500  | 83 21 882             |
| with master   |   |                       |
| Further versions and accessories for the                  |   | Please contact Dräger |
| automatic test station Dräger X-dock®                     |   |                       |
| Nonane tester   |   | 83 25 861             |
|   |   |                       |

# **Ordering Information**

| Test gases                                  | _  | Please contact Dräger.              |
|---|--|-------------------------------------|
| Accessories for measured value              |  |                                     |
| acquisition and configuration               |  |                                     |
| Dräger CC-Vision                            |  | Freeware (www.draeger.com/software) |
| Dräger GasVision License 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 three)     |  | 83 26 828                           |
| Shoulder strap (complete)                   | requires bow for shoulder strap<br>(83 26 819) | 83 26 823                           |
| Retractable lenyard                         | requires connector for shoulder strap          | 83 23 032                           |
| Holder for label (on strap)                 |  | 83 26 824                           |
| Adhesive label for individual inscriptions, |  | 83 27 645                           |
| for holder on strap, silver (set of 5)      |  |                                     |
| 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.   | requires connector for shoulder strap          | 83 25 874                           |
| for area monitoring                         |  |                                     |
| Transponder reader for reading the          |  | 65 59 283                           |
| integrated RFID transponder (optional)      |  |                                     |

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