

Dräger X-am<sup>®</sup> 2500 Multi-Gas Detector

The Dräger X-am<sup>®</sup> 2500 was especially developed for use as personal protection. The 1 to 4 gas detector reliably detects combustible gases and vapours, as well as  $O_2$ , CO,  $H_2S$ ,  $NO_2$  and  $SO_2$ . Reliable and fully mature measuring technology, durable sensors and easy handling ensure a high degree of safety with extremely low operating costs.



### **Benefits**

#### **Durable electrochemical sensors**

Fully developed, high performance Dräger sensors in an extra small format for CO,  $H_2S$ ,  $O_2$ ,  $SO_2$  and  $NO_2$  gases enable safe use in industry, mining and in refineries. The impressive hydrogen sulphide sensor has a high resolution, so it can reliably measure even very low workplace limits. The non-consumptive and lead-free sensor for oxygen is characterized by an especially long service life of more than 5 years. Dräger's CO and  $H_2S$  sensors also have this long service life expectation, so they contribute to especially low operating costs.

#### Poison resistant Ex sensor

The innovative, catalytic Ex sensor is impressive due to its high resistance to silicone and hydrogen sulphide. Together with the high degree of drift stability, this resistance enables an extraordinarily long service life of more than 4 years. Its sensitivity with regard to flammable gases and vapours is tested in accordance to measurement performance approval IEC/EN 60079-29-1 from methane to nonane. This approval also demonstrates the suitability of this instrument for primary explosion protection, e.g. for use in refineries and in the chemical industry.

#### Maximum safety

The Dräger X-am 2500 has Ex approval for zone 0, so it is clearly designed for very high user safety in areas subject to explosion hazard. The functional design ensures that gas can enter from above and from the front.

#### Maintenance: fast, easy, inexpensive

From functional test with gas to complete documentation, users have access to practical solutions that provide safety for implementation at any time. The Dräger Bump Test Station, which does not require a local power source, and the automatic Dräger X-dock testing and calibration station for comprehensive equipment management are ideal system additions that save time and effort. Together with the Dräger X-dock, the high quality Dräger sensors enable quick bump tests of 8 to 15 seconds<sup>1</sup> with very low gas consumption. This significantly reduces your equipment operating costs.

<sup>1</sup> With standard sensors: CH<sub>4</sub>, O<sub>2</sub>, CO, H<sub>2</sub>S

#### Diffusion or pump mode

For clearance measurements for tanks and shafts or when searching for leaks, an optional external pump with a hose up to 45 m long is the optimum solution. The pump starts automatically when the measuring instrument is connected. The switch from diffusion to pump operation can be handled quickly and easily without tools or screws.

## **Benefits**

#### **Ergonomic and robust**

Thanks to its low weight and ergonomic design, the Dräger X-am 2500 offers a high degree of wearing comfort. The practical two button control panel and easy menu navigation allow the instrument to be used intuitively, despite its comprehensive functionality. The integrated protective rubber coating and sensors that are not sensitive to shock provide additional safety in case of impacts or vibrations. Moreover, the Dräger X-am 2500 is not sensitive to electromagnetic radiation, e.g. from wireless devices. The Dräger X-am 2500 is water and dust resistant in accordance with protection class IP 67, so it remains fully functional even if it falls accidentally into the water.

#### **Reliable power supply**

The Dräger X-am 2500 can operate with either alkaline batteries or with rechargeable NiMH batteries. This enables a reliable power supply for more than 12 hours. Depending on the requirements, the batteries can be charged either in the workshop or in a vehicle. Operating time without Ex sensor is typically more than 250 hours.

## System Components



#### Dräger X-dock<sup>®</sup> 5300/6300/6600

The Dräger X-dock<sup>®</sup> series provides you with full control of your portable Dräger gas detection instruments. Automatic bump tests and calibrations with reduced test gas consumption and short testing times save time and money. Comprehensive documentation and evaluations provide you with a clear overview.

# System Components



#### **Dräger Bump Test Station**

Easy to use, stand-alone and portable. With the Bump Test Station, functionality tests of gas detection and warning devices can be carried out easily and quickly.

## Accessories



#### Dräger X-am® Pump

The Dräger X-am<sup>®</sup> Pump is an external pump for the portable gas detectors Dräger X-am<sup>®</sup> 2500, 5000, and 5600 – designed for clearance measurement, for example in tanks and shafts. The pump automatically switches on when it is connected to a running X-am<sup>®</sup> device. The change from pump mode to diffusion mode is fast and easy.



#### Power pack & Charging set

Consisting of: NiMH power supply, charging module, single charger

## Accessories



#### **Calibration Gas and Accessories**

Calibration of equipment will ensure safe operation and functionality of equipment and will also meet with the applicable regulations and codes of practice. Various calibration gas options are easily available.

#### Dräger Configuration and Evaluation Software

Save measurement results, professionally configure gas detection instruments and viewing performance data – all that is possible with the tailor-made Dräger software.



# **Related Products**



#### Dräger X-am<sup>®</sup> 5000

The Dräger X-am<sup>®</sup> 5000 belongs to a generation of gas detectors, developed especially for personal monitoring applications. This 1- to 5-gas detector reliably measures combustible gases and vapors as well as oxygen and harmful concentrations of toxic gases, organic vapors, Odorant and Amine. D-406-2018

# **Related Products**



#### Dräger X-am<sup>®</sup> 5600

Featuring an ergonomic design and innovative infrared sensor technology, the Dräger X-am<sup>®</sup> 5600 is one of the smallest gas detection instrument for the measurement of up to 6 gases. Ideal for personal monitoring applications, this robust and water-tight detector provides accurate, reliable measurements of explosive, combustible and toxic gases and vapors as well as oxygen.

#### Dräger X-am<sup>®</sup> 3500

The Dräger X-am<sup>®</sup> 3500 was especially designed for clearance measurements. The 1 to 4 gas detector reliably detects flammable gases and vapours as well as  $O_2$ , CO,  $H_2S$ ,  $NO_2$  and  $SO_2$ . The innovative signalling design and extensive range of accessories ensure optimum safety and easy handling.



#### Dräger X-am<sup>®</sup> 8000

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

# **Technical Data**

| Dimensions (W x H x D) |                         | 48 x 130 x 44 mm  |                       |  |  |  |
|------------------------|-------------------------|---|-----------------------|--|--|--|
| Weight                 |                         | 220 – 250 g   |                       |  |  |  |
| Ambient conditions     | Temperature             | -20 to +50 °C (-40 to +50 °C for max. 15 minutes)                   |                       |  |  |  |
|                        | Pressure                | 700 to 1,300 mbar   |                       |  |  |  |
|                        | Relative humidity       | 10 to 95 % r.h.   |                       |  |  |  |
| Protection class       |                         | IP 67   |                       |  |  |  |
| Alarms                 | Visual                  | 360°  |                       |  |  |  |
|                        | Audible                 | Multi-tone > 90 dB at 30 cm   |                       |  |  |  |
|                        | Vibration               |   |                       |  |  |  |
| Operating times        |                         | > 12 h with alkaline and NiMH,                                      |                       |  |  |  |
|                        |                         | > 13 h with NiMH HC,  |                       |  |  |  |
|                        |                         | > 250 h w/o Ex sensor with alkaline batteries                       |                       |  |  |  |
| Charging time          |                         | < 4 h   |                       |  |  |  |
| Datalogger             |                         | Retrievable using an infrared interface > 1,000 h with 4 gases at a |                       |  |  |  |
|                        |                         | recording interval of 1 value per minute                            |                       |  |  |  |
| Pump operation         |                         | Maximum hose length 45 m;   | 148 ft.               |  |  |  |
| Approvals              | ATEX                    | I M1 Ex da ia I Ma  |                       |  |  |  |
|                        |                         | II 1G Ex da ia IIC T4/T3 Ga   |                       |  |  |  |
|                        | IECEx                   | IECExEx da ia I Ma  |                       |  |  |  |
|                        |                         | Ex da ia IIC T4/T3 Ga   |                       |  |  |  |
|                        | CSA (Canada & USA)      | Class I Div. 1 Group A, B, C, D, E, F, G TCode T4/T3                |                       |  |  |  |
|                        |                         | A/Ex da ia IIC T4/T3 /Ga  |                       |  |  |  |
|                        | Measurement performance | EN 50104  | O <sub>2</sub>        |  |  |  |
|                        | certificate             | EN 45544-1, EN 45544-2  | CO & H <sub>2</sub> S |  |  |  |
|                        |                         | EN 60079-29-1   | Methane to nonane, H2 |  |  |  |
|                        | CE mark                 | Electromagnetic Compatibility (Directive 2014/30/EU)                |                       |  |  |  |
|                        |                         | ATEX (Directive 94/9/EC)  |                       |  |  |  |
|                        | MED                     | Marine Equipment Directive (Directive 2014/90/EU)                   |                       |  |  |  |
|                        | EAC                     | PO Ex da ia I Ma X  |                       |  |  |  |
|                        |                         | 0Ex da ia IIC T4/T3 Ga X  |                       |  |  |  |

# Ordering Information

| Dräger X-am <sup>®</sup> 2500   | Order no. |
|---|-----------|
| Dräger X-am <sup>®</sup> 2500   |           |
| Available in various versions. Cannot be modified later with other                            |           |
| sensors. Includes calibration certificate. No power supply                                    |           |
| included.   |           |
| Dräger X-am <sup>®</sup> 2500 EX <sup>1, 2</sup>  | 83 23 910 |
| Dräger X-am <sup>®</sup> 2500 Ex, O <sub>2</sub> <sup>1, 2</sup>                              | 83 23 912 |
| Dräger X-am <sup>®</sup> 2500 Ex, O <sub>2</sub> , H <sub>2</sub> S LC <sup>1, 2</sup>        | 83 23 914 |
| Dräger X-am <sup>®</sup> 2500 Ex, O <sub>2</sub> , CO LC <sup>1</sup> , <sup>2</sup>          | 83 23 916 |
| Dräger X-am <sup>®</sup> 2500 Ex, O <sub>2</sub> , H <sub>2</sub> S-LC, CO LC <sup>1, 2</sup> | 83 23 918 |
| Dräger X-am <sup>®</sup> 2500 (83 23 918) incl. power and charging kit (83 18 785)            | 83 23 919 |
| Dräger X-am <sup>®</sup> 2500 Flex <sup>1</sup>   | 83 23 900 |
| Choice of up to four sensors (1 slot for CatEx and 3 slots for                                |           |
| XXS sensors). Can be modified later with other sensors.                                       |           |
| Includes calibration certificate. Power supply as an option.                                  |           |

# Ordering Information

| DrägerSensors   | Measuring range                    | Resolution        |               | Expected service life | Order no. |
|---|------------------------------------|-------------------|---------------|-----------------------|-----------|
| CatEx 125 PR <sup>1, 2</sup>  | 0 – 100 % LEL                      | 1 % LEL           |               | > 4 years             | 68 12 950 |
|   | 0 – 5 Vol% CH <sub>4</sub>         | 0.1 Vol.%         |               |                       |           |
| CatEx 125 PR Gas <sup>2</sup>   | 0 – 100 % LEL                      | 1 % LEL           |               | > 3 years             | 68 13 080 |
| DrägerSensor XXS O <sub>2</sub> 1                                     | 0 – 25 Vol%                        | 0.1 Vol%          |               | > 5 years             | 68 10 881 |
| DrägerSensor CO LC <sup>1</sup>                                       | 0 – 2,000 ppm                      | 1 ppm             |               | > 5 years             | 68 13 210 |
| DrägerSensor XXS H <sub>2</sub> S                                     | 0 – 100 ppm                        | 0.1 ppm           |               | > 5 years             | 68 11 525 |
| LC <sup>1</sup>   |                                    |                   |               |                       |           |
| DrägerSensor NO <sub>2</sub>  | 0 – 50 ppm                         | 0.1 ppm           |               | > 3 years             | 68 10 884 |
| DrägerSensor SO <sub>2</sub>  | 0 – 100 ppm                        | 0.1 ppm           |               | > 3 years             | 68 10 885 |
| <sup>1</sup> Dräger provides a 3 year                                 | manufacturer 's warrant            | y on the Dräger λ | (-am® 2500 an | d these sensors.      |           |
| <sup>2</sup> Special calibration for Ex                               | x sensors are available (s         | standard setting: | Methane).     |                       |           |
| Power supply units  |                                    |                   |               |                       |           |
| NiMH power pack T4 with   | charging module and P              | SIL (complete     | 83 18 785     |                       |           |
| set)  | sharging module and F              |                   | 50 10 700     |                       |           |
| NiMH power pack T4  |                                    |                   | 83 18 704     |                       |           |
|   | kaline power pack (w/o batteries)  |                   | 83 22 237     |                       |           |
| Alkaline batteries T3 (2 pc   |                                    | 2 237             | 83 22 239     |                       |           |
| Alkaline battery T4 (2 pcs.)  |                                    | 83 22 240         |               |                       |           |
| Charging adapter (for cha   | rging a rechargeable bat           | ttery without     | 83 26 101     |                       |           |
| X-am <sup>®</sup> device)   |                                    |                   |               |                       |           |
| Charging accessories  |                                    |                   |               |                       |           |
| Charging module   |                                    |                   | 83 18 639     |                       |           |
| Charging kit consisting of  | a charging module and              | a single charger  | 83 20 333     |                       |           |
| (worldwide)   | 3 3 3 3 3 3                        | 3 3 -             |               |                       |           |
| Power plug 100-240 VAC; 6.25 A, forcharging up to 20 devices          |                                    | 83 21 850         |               |                       |           |
| Adapter for power plug 83   | 3 25 736 is needed in ad           | ldition.          |               |                       |           |
| Single charger (worldwide   | e) for multiple charging n         | nodules           | 83 16 994     |                       |           |
| (max. 5)  |                                    |                   |               |                       |           |
| Vehicle charging cable 12 V / 24 V for charging module                |                                    | 45 30 057         |               |                       |           |
| Vehicle mounting kit for a Dräger X-am <sup>®</sup> 1/2/5x00 charging |                                    | 83 18 779         |               |                       |           |
| module  |                                    |                   |               |                       |           |
| Pump accessories  |                                    |                   |               |                       |           |
| Dräger X-am <sup>®</sup> Pump (external pump)                         |                                    |                   | 83 27 100     |                       |           |
| Manual pump adapter   |                                    | 83 19 195         |               |                       |           |
| Confined Space Entry Kit with external pump and 5 m FKM hose          |                                    | 83 27 117         |               |                       |           |
| Empty case with room for  | X-am® 1/2/5x00, chargi             | ng accessories,   | 83 27 112     |                       |           |
| probe, gas cylinder, pump   | o, 3 m hose, etc.                  |                   |               |                       |           |
| Calibration accessories   |                                    |                   |               |                       |           |
| Calibration cradle for Dräg   | ger X-am <sup>®</sup> 1/2/5x00     |                   | 83 18 752     |                       |           |
| Dräger X-dock <sup>®</sup> 5300 for Dräger X-am <sup>®</sup> 1/2/5x00 |                                    |                   | 83 21 880     |                       |           |
| Other versions of Dräger >  | •                                  |                   | on request    |                       |           |
| Dräger Bump Test Station  |                                    | 5x00              | 83 19 131     |                       |           |
| (w/o gas cylinder)  | <b>U</b>                           |                   |               |                       |           |
| Dräger Bump Test Station  | for Dräger X-am <sup>®</sup> 1/2/5 | 5x00, incl. gas   | 83 19 130     |                       |           |
| cylinder 58L (gas and con   | e                                  |                   |               |                       |           |
| onane tester for Dräger X-am <sup>®</sup> 1/2/5x00                    |                                    |                   |               |                       |           |

# Ordering Information

| Dräger GasVision license key                             | 83 25 646, software: www.draeger.com/software (free tria |  |  |
|--|--|--|--|
|  | version)   |  |  |
| Dräger CC-Vision   | www.draeger.com/software                                 |  |  |
| USB DIRA with USB cable, IR communication adapter to USB | 83 17 409  |  |  |

Notes

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