

# Dräger X-am<sup>®</sup> 5600 Multi-Gas Detector

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.



### **Benefits**

#### Small yet robust

Small, light and easy to use - the robust and water-tight gas detector X-am 5600 is designed for single-handed operation in tough industrial environments. Water- and dustproof according to IP 67 and with an integrated rubber boot, the device provides optimal functionality even under harsh conditions.

#### **Durable infrared technology**

Thanks to the high stability and a resistance to contamination, Dräger infrared sensors can generally be used for up to eight years. This advanced technology reduces the cost of ownership considerably because less replacement sensors are needed. In addition, a calibration of the IR sensor is only necessary every 12 months which reduces maintenance costs.

#### Single or dual sensor - accurate measurement results

The infrared sensor IR Ex allows the measurement of explosive, combustible hydrocarbons in the range of the lower explosive limit. The infrared sensor IR  $CO_2$ , with a measurement resolution of 0.01 Vol.-%, provides safe and exact measurements as well as a warning against toxic concentrations of carbon dioxide in the ambient air. For those applications where the reliable measurement of explosive substances and  $CO_2$  is specifically needed, the advantages of both can be achieved by a dual sensor (Dual IR  $CO_2/Ex$ ).

#### Also in combination with Hydrogen

Besides hydrocarbons, hydrogen can also be an explosive gas. Because sensors based on infrared technology do not warn against hydrogen explosion dangers, the gas detector X-am 5600 combines two sensor signals (Infrared Ex and electrochemical  $H_2$  HC) for reliable hydrogen detection. The X-am 5600 provides the advantages of poison-free technology to be used in areas where, until now, only catalytic Ex sensors have been used.

#### Various monitoring possibilities

Thanks to the combination of innovative infrared technology and the latest electrochemical Dräger XXS miniature sensors, this 1-to-6 gas detector reliably detects explosive, combustible and harmful concentrations of O<sub>2</sub>, Cl<sub>2</sub>, CO, CO<sub>2</sub>, H<sub>2</sub>, H<sub>2</sub>S, HCN, NH<sub>3</sub>, NO, NO<sub>2</sub>, PH<sub>3</sub>, SO<sub>2</sub>, O<sub>3</sub>, Amine, Odorant, COCl<sub>2</sub> and organic vapors. With the PC software Dräger CC-Vision, the sensors can easily be exchanged, calibrated or converted to meet the needs of different applications.

#### Flexible use

An optional external pump which can be operated with hoses up to 45 m in length is the perfect solution for pre-entry measurements in tanks or pipelines. To monitor entire areas, the gas detector X-am 5600 can be used in combination with the innovative air monitor Dräger X-zone 5500.

## **Benefits**

#### Suitable for Ex-Zone 0

The small and reliable gas detector is suitable for use in areas classified as zone 0, which are areas where explosive atmospheres are always to be expected - also with Dräger X-am<sup>®</sup> Pump and Dräger X-zone<sup>®</sup> 5500.

#### Area monitoring

In combination with the Dräger X-zone 5500 the gas detector can be used for various area monitoring applications. Up to 25 Dräger X-zone 5500 units can be automatically interconnected to form a wireless fenceline. This interconnection of the area monitoring devices allows for the fast securing of larger areas, e.g. pipelines or industrial tanks – even within the scope of industrial shutdowns.

### System Components



#### **DrägerSensor XXS**

Dräger has developed miniature electrochemical sensors specially for the Dräger Pac<sup>®</sup>, X-am<sup>®</sup> 1/2/5 and X-am<sup>®</sup> 8000 generation. The sensors detect many different gases and vapours. They are also very reliable and stable over the long-term, thereby reducing your operating costs.

ST-740-2006

## System Components



#### **Dräger Infrared Sensors**

Dräger infrared sensors deliver optimal measurement results and are unaffected by sensor poisons. The long service life of these sensors results in hardly any follow-up costs. You can also use Dräger infrared sensors to take Ex and CO<sub>2</sub> measurements simultaneously.

### Dräger X-dock® 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.



## Dräger Bump Test Station Easy to use, stand-alone an

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



#### **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.



#### Dräger X-am<sup>®</sup> 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.



D-11857-2016

#### Power pack & charging set

NiMH supply unit T4 with charger module und power pack

## Accessories



**Calibration cradle** 

## **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.



#### 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		~ 9 h or rather ~ 10.5 h		
Charging time		< 4 h		
Datalogger		Can be read out via Infrared > 1,000 hours with 6 gases and 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 certificate	EN 50104	O <sub>2</sub>	
		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)		
	MED	Marine Equipment Directive (Directive 2014/90/EU)		
	EAC	PO Ex ia I Ma X		
		0Ex ia IIC T4/T3 Ga X		

## Ordering Information

#### Dräger X-am<sup>®</sup> 5600

83 21 050

Consisting of: basic instrument with an integrated data logger, manufacturer's and calibration certificates. A functional instrument must include up to 4 sensors and a power supply unit (option).

Infrared sensors	Measuring range	Resolution	Order code
DrägerSensor Dual IR Ex/CO <sub>2</sub>	0 – 100 % LEL	1 % LEL	68 11 960
1)	0 – 100 Vol% Methane,	0.1 Vol% CH <sub>4</sub>	
	Propane, Ethene, n-Butane		
	0 – 5 Vol% CO <sub>2</sub>	0.01 Vol% CO <sub>2</sub>	
DrägerSensor IR Ex 1)	0 – 100 % LEL	1 % LEL	68 12 180
	0 – 100 Vol% Methane,	0.1 Vol% CH <sub>4</sub>	
	Propane, Ethene, n-Butane		
DrägerSensor IR CO <sub>2</sub>	0 – 5 Vol% CO <sub>2</sub>	0.01 Vol% CO <sub>2</sub>	68 12 190
Electrochemical sensors	Measuring range	Resolution	Order code
DrägerSensor XXS O <sub>2</sub> <sup>2)</sup>	0 – 25 Vol%	0.1 Vol%	68 10 881
DrägerSensor XXS CO LC	0 – 2,000 ppm	1 ppm	68 13 210
DrägerSensor XXS O <sub>2</sub> 100	0 - 100 Vol%	0.5 Vol%	68 12 385
DrägerSensor XXS CO HC	0 – 10,000 ppm	5 ppm	68 12 010

# Ordering Information

DrägerSensor XXS CO/H <sub>2</sub> compensated	0 – 2,000 ppm CO	2 ppm	68 11 950
DrägerSensor XXS H <sub>2</sub> S LC <sup>2)</sup>	0 – 100 ppm	0.1 ppm	68 11 525
DrägerSensor XXS H <sub>2</sub> S HC	0 – 1,000 ppm	2 ppm	68 12 015
DrägerSensor XXS CO LC/	0 – 2,000 ppm CO	1 ppm CO	68 13 280
H <sub>2</sub> S LC	0 – 200 ppm H <sub>2</sub> S	0.1 ppm H <sub>2</sub> S	
DrägerSensor XXS CO LC/O <sub>2</sub>	0 - 200 ppm CO	1 ppm CO	68 13 275
	0 - 25 Vol% O <sub>2</sub>	0.1 Vol% O <sub>2</sub>	
DrägerSensor XXS H <sub>2</sub> S LC /	0 - 100 ppm H <sub>2</sub> S	0.1 ppm H <sub>2</sub> S	68 14 137
O <sub>2</sub>	0 - 25 Vol% O <sub>2</sub>	0.1 Vol% O2	
DrägerSensor XXS NO	0 – 200 ppm	0.1 ppm	68 11 545
DrägerSensor XXS NO <sub>2</sub>	0 – 50 ppm	0.1 ppm	68 10 884
DrägerSensor XXS NO <sub>2</sub> LC	0 - 50 ppm	0.02 ppm	68 12 600
DrägerSensor XXS SO <sub>2</sub>	0 – 100 ppm	0.1 ppm	68 10 885
DrägerSensor XXS PH <sub>3</sub>	0 – 20 ppm	0.01 ppm	68 10 886
DrägerSensor XXS PH <sub>3</sub> HC	0 – 2,000 ppm	1 ppm	68 12 020
DrägerSensor XXS HCN	0 – 50 ppm	0.1 ppm	68 10 887
DrägerSensor XXS HCN PC	0 - 50 ppm	0.5 ppm	68 13 165
DrägerSensor XXS NH <sub>3</sub>	0 – 300 ppm	1 ppm	68 10 888
DrägerSensor XXS CO <sub>2</sub>	0 – 5 Vol%	0.1 Vol%	68 10 889
DrägerSensor XXS Cl <sub>2</sub>	0 – 20 ppm	0.05 ppm	68 10 890
DrägerSensor XXS H <sub>2</sub>	0 – 2,000 ppm	5 ppm	68 12 370
DrägerSensor XXS H <sub>2</sub> HC	0 – 4 Vol%	0.01 Vol%	68 12 025
DrägerSensor XXS OV	0 – 200 ppm	0.5 ppm	68 11 530
DrägerSensor XXS OV-A	0 – 200 ppm	1 ppm	68 11 535
DrägerSensor XXS Amine	0 – 100 ppm	1 ppm	68 12 545
DrägerSensorXXS Odorant	0 – 40 ppm	0.5 ppm	68 12 535
DrägerSensorXXS COCl <sub>2</sub>	0 – 10 ppm	0.01ppm	68 12 005
DrägerSensor XXS Ozone	0 – 10 ppm	0.01 ppm	68 11 540

1) Special calibration for Ex sensors available (standard setting: Methane)

2) Dräger provides a 3 year manufacturer 's warranty on the Dräger X-am<sup>®</sup> 5000 and these sensors. The legal rights arising from defects remain unaffected.

DrägerSensor XXS E CO	0 – 2,000 ppm	2 ppm		15 sec.	68 12 212
DrägerSensor XXS E H <sub>2</sub> S	0 – 200 ppm	1 ppm		15 sec.	68 12 213
DrägerSensor XXS E O <sub>2</sub>	0 – 25 Vol%	0.1 Vol%		10 sec.	68 12 211
Power supply units					
NiMH power supply T4			83 18 704		
NiMH power supply T4 hig	gh capacity		83 22 244		
Power pack & charging se power supply T4, charging worldwide use)	U	0	83 18 785		
Power pack & charging se power supply HC T4, char worldwide use)	Ũ	0	83 22 785		
Battery holder ABT 0100 (	without batteries)		83 22 237		
Alkaline batteries T3 (2 pc	s) for hattery holder 8	33 22 237	83 22 239		

# Ordering Information

Alkaline battery T4 (2 pcs.)	83 22 240		
Charging accessories			
Charging module	83 18 639		
Charging set basic, consisting of one charging module and a	83 20 333		
single power supply (worldwide use)			
Power plug 100-240 VAC; 6.25 A, for charging up to 20 devices	83 21 850		
Adapter for power plug 83 25 736 is needed in addition.			
Single charger (worldwide use) for max. 5 charger modules	83 16 994		
Car charging connection cabel 12 V / 24 V for a charging module	45 30 057		
Vehicle charger mounting kit for one Dräger X-am <sup>®</sup> 1/2/5x00	83 18 779		
charging module			
Charging adapter for charging a rechargeable battery without X- am <sup>®</sup> device	83 26 101		
Pump accessories			
Dräger X-am <sup>®</sup> Pump (external pump)	83 27 100		
Dräger X-am <sup>®</sup> Pump incl. USB charger and shoulder strap	83 27 115		
Hand pump adapter	83 19 195		
CSE Set Dräger X-am <sup>®</sup> Pump (incl. 5 m FKM hose)	83 27 117		
Case for Dräger X-am <sup>®</sup> Pump	83 27 104		
Calibration accessories			
Calibration cradle	83 18 752		
Dräger X-dock 5300 for Dräger X-am <sup>®</sup> 1/2/5x00	83 21 880		
Dräger Bump Test Station for Dräger X-am <sup>®</sup> 5600, not including	83 19 131		
gas cylinder			
Dräger Bump Test Station for Dräger X-am <sup>®</sup> 5600, complete with	83 19 130		
Dräger Bump Test Station for Dräger X-am <sup>®</sup> 5600, complete with one test gas cylinder 58L (gas and concentration variable)	83 19 130		
	83 19 130 83 20 080		
one test gas cylinder 58L (gas and concentration variable)			
one test gas cylinder 58L (gas and concentration variable) Nonane Checker			
one test gas cylinder 58L (gas and concentration variable) Nonane Checker Communication accessories / software	83 20 080		
one test gas cylinder 58L (gas and concentration variable) Nonane Checker Communication accessories / software	83 20 080 83 25 646, software:		
one test gas cylinder 58L (gas and concentration variable) Nonane Checker Communication accessories / software Dräger GasVision 7 license key	83 20 080 83 25 646, software: www.draeger.com/software (free trial version)		
one test gas cylinder 58L (gas and concentration variable) Nonane Checker Communication accessories / software Dräger GasVision 7 license key Dräger CC-Vision USB DIRA with USB cable, communication adapter infrared to	83 20 080 83 25 646, software: www.draeger.com/software (free trial version) www.draeger.com/software		
one test gas cylinder 58L (gas and concentration variable) Nonane Checker Communication accessories / software Dräger GasVision 7 license key Dräger CC-Vision USB DIRA with USB cable, communication adapter infrared to USB	83 20 080 83 25 646, software: www.draeger.com/software (free trial version) www.draeger.com/software		
one test gas cylinder 58L (gas and concentration variable) Nonane Checker Communication accessories / software Dräger GasVision 7 license key Dräger CC-Vision USB DIRA with USB cable, communication adapter infrared to USB Area monitoring	83 20 080 83 25 646, software: www.draeger.com/software (free trial version) www.draeger.com/software 83 17 409		

working areas or to connect to external alarm contacts.

Notes

Not all products, features, or services are for sale in all countries. Mentioned Trademarks are only registered in certain countries and not necessarily in the country in which this material is released. Go to www.draeger.com/trademarks to find the current status.

#### CORPORATE HEADQUARTERS

Drägerwerk AG & Co. KGaA Moislinger Allee 53–55 23558 Lübeck, Germany www.draeger.com

#### **REGION DACH**

Dräger Safety AG & Co. KGaA Revalstraße 1 23560 Lübeck, Germany Tel +49 451 882 0 Fax +49 451 882 2080 info@draeger.com

#### REGION EUROPE

Dräger Safety AG & Co. KGaA Revalstraße 1 23560 Lübeck, Germany Tel +49 451 882 0 Fax +49 451 882 2080 info@draeger.com

#### REGION MIDDLE EAST, AFRICA

Dräger Safety AG & Co. KGaA Branch Office P.O. Box 505108 Dubai, United Arab Emirates Tel +971 4 4294 600 Fax +971 4 4294 699 contactuae@draeger.com

### **REGION ASIA PACIFIC** Draeger Singapore Pte. Ltd.

25 International Business Park #04-20/21 German Centre Singapore 609916 Tel +65 6308 9400 Fax +65 6308 9401 asia.pacific@draeger.com

### REGION CENTRAL

AND SOUTH AMERICA Dräger Panama S. de R.L. 59 East Street, Nuevo Paitilla House 30, San Francisco Town Panama City, Panama Tel +507 377 9100 Fax +507 377 9130 servicioalcliente@draeger.com

Locate your Regional Sales Representative at: www.draeger.com/contact

