

## Electrochemical DrägerSensor Sensors for Fixed Gas Detectors

Fast response, high accuracy, great stability, long life. Electrochemical DrägerSensors offer all these benefits. You can use the robust and long-life sensors for the selective measurement of the smallest concentrations of toxic gases and oxygen in ambient air.



## Benefits

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### Long lifetime

The electrochemical are designed to provide a reliable und stable measurement function over a long period of time. The use of resistant plastics, such as PTFE, and the purest catalysts make this possible. Additionally, a huge electrolytic reservoir and large electrode areas provide sufficient reserves for a long lifetime. The construction of the DrägerSensors offers you long stability and a low age-related drift.

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### Ready for immediate use

All DrägerSensors are factory calibrated with the target gas. These values are saved in the internal, electronic memory. You can use the sensors in the field immediately. For some sensors other target gases can be selected from the internal gas library.

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### Comprehensive range of applications

All sensors have an internal temperature sensor. Between -40 °C and +65 °C, the temperature influence is compensated for zero and sensitivity. The patented internal pressure compensation balances adverse ambient conditions, such as humidity changes or barometric variation. Due to this fact, you can use the sensors even in high or low pressure. For some sensors you can reduce the disturbing influence of cross-sensitivities by combining selective filters.

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### Performance features

- Low detection limits
- Optimised selectivity
- Excellent accuracy of measurements
- Fast response
- Comprehensive self-diagnosis options
- It is possible to choose between oxygen sensors for partial pressure measurement or volume percent measurement
- Sensors with organic electrolyte for detection limits in lower ppb range
- Acid gas sensor AC with unlimited lifetime, due to refillable electrolyte

## System Components



ST-3812-2003

### Dräger Polytron® 7000

The Dräger Polytron® 7000 is a gas detector that can satisfy many toxic and oxygen gas measurement applications on a single platform. It meets the requirements of the compliance market as well as the high specification requirements of customised solutions.



ST-3811-2003

### Dräger Polytron® 3000

The Dräger Polytron® 3000 is an intrinsically safe gas detector for the continuous monitoring of more than 60 toxic gases and oxygen in ambient air. It is the part of a new generation of gas detectors developed on a modular platform. Communication to the central control system is done via a 4 to 20 mA signal.



D-52.804-2012

### Dräger Polytron® 8100 EC

The Polytron® 8100 EC is Dräger's top of the line explosion-proof transmitter for the detection of toxic gases or oxygen. It uses a high performance plug and play electrochemical DrägerSensor to detect a specific gas. Besides having a 3-wire 4 to 20 mA analogue output with relays, it also offers Modbus and Fieldbus protocol making it compatible with most control systems.



D-158-2016

### Dräger Polytron® 5100 EC

The Dräger Polytron® 5100 EC is a cost-effective explosion-proof transmitter for the detection of toxic gases or oxygen. It uses a high performance plug-and-play electrochemical DrägerSensor to detect a specific gas. A 2 or 3-wire with 4 to 20 mA output with relays make it compatible with most control systems.

## Accessories



ST-5653-2006

### Calibration bottle

Made of plastic, this 3-litre container for generating a defined concentration of gas, using test gas ampoules, when calibrating electrochemical DrägerSensors.



ST-5695-2006

### Test gas ampoules

Test gas ampoules are used in conjunction with the calibration bottle. They are available for various gases and concentrations.



D-4785-2017

### Dust filter

This hydrophobic dust filter for electrochemical DrägerSensors (see also the corresponding sensor data specification).



D-4789-2017

### Selective filter

Selective filters absorb interfering gases from the ambient air. They are located in the sensor opening of the DrägerSensor and can easily be replaced if worn out.

## Accessories



ST-5676-2006

### Viton® calibration adapter

The flexible, soft calibration adapter, made of Viton®, is used for gassing during zero point test and when calibrating electrochemical DrägerSensors.

## Related Products



ST-8921-2005

### DrägerSensor IR

Upgrade from catalytic bead to infrared technology with ease using the DrägerSensor IR. The Sensor IR can replace catalytic ex-sensors (pellistors) from the majority of manufacturers without replacing controllers, cables, junction boxes or control systems.



D-1119-2010

### Catalytic Bead DrägerSensor

The catalytic bead DrägerSensor is designed for the continuous monitoring and detection of combustible gases and vapours – with different versions for different applications or concentrations.

## Ordering Information

Target gas	DrägerSensor	Part number	Detection limit	max. range	Comment
			Vol%	Vol%	
Oxygen	O <sub>2</sub>	68 09 720	0.5	100	partial pressure
Oxygen	O <sub>2</sub> LS	68 09 630	0.5	25	

Target gas	DrägerSensor	Part number	Detection limit	max. range	Comment
			ppm	ppm	additional gases
Ammonia	NH <sub>3</sub> TL	68 13 095	1	300	amines
Ammonia	NH <sub>3</sub> FL	68 13 260	1	300	
Ammonia	NH <sub>3</sub> HC	68 09 645	30	1,000	
Ammonia	NH <sub>3</sub> LC	68 09 680	5	300	amines
Carbon monoxide	CO LS	68 09 620	10	5,000	
Carbon monoxide	CO LH	68 12 570	15	300	
Carbon monoxide	CO	68 09 605	5	1,000	
Chlorine	Cl <sub>2</sub>	68 09 665	0.05	50	halogene
Ethylene oxide	OV1	68 10 740	5	200	organic vapours
Ethylene oxide	OV2	68 10 745	5	100	organic vapours
Hydrazine	Hydrazin	68 10 180	0.02	5	derivitives
Hydrogen	H <sub>2</sub>	68 09 685	15	3,000	
Hydrogen chloride	AC	68 10 595	0,5	30	acidic compounds
Hydrogen chloride	HCl	68 09 640	1	100	halides
Hydrogen cyanide	HCN	68 09 650	1.5	50	
Hydrogen cyanide	HCN LC	68 13 200	0.1	50	
Hydrogen peroxide	H <sub>2</sub> O <sub>2</sub> HC	68 09 675	50	7,000	
Hydrogen peroxide	H <sub>2</sub> O <sub>2</sub> LC	68 09 705	0.1	300	
Hydrogen sulfide	H <sub>2</sub> S HC	68 09 710	10	1,000	
Hydrogen sulfide	H <sub>2</sub> S LC	68 09 610	1	100	mercaptane
Hydrogen sulfide	H <sub>2</sub> S	68 10 435	0.5	100	
Nitrogen dioxide	NO <sub>2</sub>	68 09 655	0.3	100	
Nitrogen dioxide	NO <sub>2</sub> LC	68 13 205	0.05	20	
Nitrogen monoxide	NO	68 09 625	3	200	
Ozone	Ozon	68 14 005	0.02	5	
Phosgene	COCl <sub>2</sub>	68 09 930	0.02	20	
Phosphine	Hydride	68 09 635	0.03	20	hydrides
Phosphine	PH <sub>3</sub> / ASH <sub>3</sub>	68 09 695	0.02	20	
Phosphine	Hydride SC	68 09 980	0.01	1	hydrides
Sulfur dioxide	SO <sub>2</sub>	68 09 660	0.5	100	

### Accessories

Calibration bottle	68 03 407
Test gas ampoule SO <sub>2</sub> 10 ppm	68 07 763
Test gas ampoule SO <sub>2</sub> 50 ppm	68 07 764
Test gas ampoule NO <sub>2</sub> 10 ppm	68 07 765
Test gas ampoule NO <sub>2</sub> 50 ppm	68 07 766
Test gas ampoule CO 100 ppm	68 07 920
Test gas ampoule CO 300 ppm	68 07 921
Test gas ampoule NH <sub>3</sub> 300 ppm	68 07 923
Test gas ampoule NH <sub>3</sub> 50 ppm	68 07 924

Test gas ampoule SO <sub>2</sub> 1 ppm	68 07 925
Test gas ampoule SO <sub>2</sub> 4 ppm	68 07 926
Test gas ampoule Cl <sub>2</sub> 8 ppm	68 07 928
Test gas ampoule HCN 10 ppm	68 07 929
Test gas ampoule H <sub>2</sub> S 10 ppm	68 08 140
Test gas ampoule H <sub>2</sub> S 20 ppm	68 08 141
Test gas ampoule H <sub>2</sub> S 40 ppm	68 08 142
Test gas ampoule H <sub>2</sub> S 100 ppm	68 08 143
Dust filter	68 09 595
Dust filter	68 12 224
Selective filter A2F (CO, CO LS, H <sub>2</sub> )	68 09 684
Selective filter K2F (COCl <sub>2</sub> )	68 09 933
Selective filter NF (HCl)	68 09 643
Selective filter HSF (Hydride)	68 09 862
Selective filter MF (PH <sub>3</sub> , AsH <sub>3</sub> )	68 09 638
Selective filter K1F (SO <sub>2</sub> )	68 09 663
Viton® Calibration adapter	68 10 536
Further calibration accessories	on request

Viton® is a registered trademark of the DuPont company

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