

Electrochemical DrägerSensor® Sensor 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

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.

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 tagret gases can be selected from the internal gas library.

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.

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



Dräger Polytron® 7000

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



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.



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 analog output with relays, it also offers HART®, Modbus and Fieldbus protocol, making it compatible with most control systems.



Dräger Polytron® 5100 EC

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

Accessories



Dust filter

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



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.



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



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.



Catalytic Bead DrägerSensor®

The DrägerSensor® ... DQ detects flammable gases and vapours such as hydrogen. Due to the double-detector compensation method, the catalytic sensor is particularly long-term stable. The wire mesh at the gas inlet serves as a flame barrier. So it ensures explosion protection at the same time short response time.

Ordering Information

Target gas	DrägerSensor	Part number	Detection limit	max. range	Comment
			Vol%	Vol%	
Oxygen	O ₂	68 09 720	0.5	100	partial pressure
Oxygen	O ₂ LS	68 09 630	0.5	25	
Target gas	DrägerSensor	Part number	Detection limit	max. range	Comment
			ppm	ppm	additional gases
Ammonia	NH ₃ TL	68 13 095	<u></u> 1	300	amines
Ammonia	NH ₃ FL	68 13 260		300	
Ammonia	NH ₃ HC	68 09 645	30	1,000	
Ammonia	NH ₃ LC	68 09 680	5	300	amines
Carbon monoxide	COLS	68 09 620		5,000	
Carbon monoxide	CO LH	68 12 570	10	300	
Carbon monoxide	CO	68 09 605		1,000	
Chlorine	Cl ₂	68 09 665	0.05	100	halogene
Ethylene oxide	OV1	68 10 740	5	200	organic vapours
Ethylene oxide	OV2	68 10 745		100	organic vapours
Hydrazine	Hydrazin	68 10 180	0.02	5	derivitives
Hydrogen	H ₂	68 09 685	15	3,000	
Hydrogen chloride	AC	68 10 595	0,5	30	acidic compounds
Hydrogen chloride	HCI	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 ₂ O ₂ HC	68 09 675	100	7,000	
Hydrogen peroxide	H ₂ O ₂ LC	68 09 705	0.1	300	
Hydrogen sulfide	H ₂ S HC	68 09 710	10	1,000	
Hydrogen sulfide	H ₂ S LC	68 09 610		100	mercaptane
Hydrogen sulfide	H ₂ S	68 10 435	0.5	100	
Nitrogen dioxide	NO ₂	68 09 655	0.3	100	
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Nitrogen dioxide	NO ₂ LC	68 13 205	0.05		
Nitrogen monoxide	NO	68 09 625	3		
Ozone	Ozon	68 14 005	0.02	_ 5	
Phosgene	COCI ₂	68 09 930	0.02		
Phosphine	Hydride	68 09 635	0.03	_ 20	hydrides
Phosphine	PH ₃ / ASH ₃	68 09 695	0.02		
Phosphine	Hydride SC	68 09 980	0.01	_ 1	hydrides
Sulfur dioxide	SO ₂	68 09 660 			
Accessories			00.00.505		
Dust filter			68 09 595		
Dust filter			68 12 224		
Selective filter A2F (CO, CO LS, H ₂) Selective filter K2F (COCl ₂)			68 09 684 68 09 933		
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Selective filter NF (HCI)			68 09 643		
Selective filter MF (PHo. AsHo)			68 09 862		
Selective filter MF (PH ₃ , AsH ₃)			68 09 638		
Selective filter K1F (SO ₂) Viton® Calibration adapter			68 09 663 68 10 536		

Further calibration accessories	on request	
Viton® is a registered trademark of the DuPont company		

Notes

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