DrägerSensor® IR
Sensors for Fixed Gas Detectors

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.



ST-8821-2005

Dräger. Technology for Life®

Benefits

Problem-free integration

With its Wheatstone bridge emulation, the Sensor IR outputs a mV signal, the same as the pellistor it replaces. The result is the control system sees the same signal input as before the Sensor IR was installed.
Naturally the Sensor IR can be operated with all Dräger control systems, more importantly it can also be connected to almost all installed systems from other manufacturers, without having to modify the wiring.

Smart and flexible

The Sensor IR offers a gas library with three gas categories: methane, propane and ethylene. Therefore, nearly all hydrocarbons are detectable. Temperature-compensatory linearising algorithms allow signal outputs for individual substances.
Through optional accessories – e.g. the process adapter or the duct mount set – a multitude of measuring tasks can be performed professionally.

Immune to pellistor poisons

Technological advantages in infrared technology (e.g. fail-safe operation or immunity against pellistor poisons) have been recognised and valued by gas detection users for a long time.
The Sensor IR now also offers these plus points for systems that have already been installed. Its long life time of over 15 years and long maintenance intervals mean that maintenance costs are significantly lower than for pellistors, make it a cost-effective, premium solution.

Performance

- Temperature-compensatory and non-imaging optics
- Gas library with 3 gas categories: Methane, propane and ethylene (typical of most hydrocarbons), performance approved in accordance with IEC 60079
- Performance approval (in accordance with IEC 60079) for 13 further substances
- Dirt and dust protection through hydrophobic splash guard
- mV signal for Wheatstone bridge installations
- Specified temperature range from - 40 °C to + 65 °C / - 40 °F to + 149 °F
- Unrestricted usage in humid atmospheres
- Hermetically sealed enclosure made of 316 stainless steel
- Slim enclosure design for confined areas of use
- Long maintenance interval thanks to minimum long-term drift
- No moving parts
- Typical life time: 15 years
- Ex approvals for worldwide use: ATEX, IECEx, UL, CSA
- Dust ex approval for zone 21 and 22
- Ingress Protection: IP 65, IP 66 and IP 67

System Components



ST-8822-2005

Dräger PIR 3000

The Dräger PIR 3000 is an explosion proof infrared gas detector for continuous monitoring of combustible gases and vapors. Based on a stainless steel SS 316 enclosure as well as on a good measuring performance, this transmitter offers an excellent price-performance-ratio.



D-6806-2016

Dräger REGARD® 7000

The Dräger REGARD® 7000 is a modular and therefore highly expandable analysis system for monitoring various gases and vapours. Suitable for gas warning systems with various levels of complexity and numbers of transmitters, the Dräger REGARD® 7000 also features exceptional reliability and efficiency. An additional benefit is the backward compatibility with the REGARD®.



D-27777-2009

Dräger REGARD® 3900

The Dräger REGARD® 3900 is a standalone, self contained control system for the detection of Toxic, Oxygen and Ex hazards. The control system is fully configurable between 1 and 16 channels, depending upon the type and quantity of input/output boards installed.



ST-335-2004

Dräger REGARD®-1

The Dräger REGARD®-1 is a standalone, self contained single channel control system for the detection of Toxic, Oxygen and Ex hazards. The control system is fully configurable for a single input from either a 4 to 20 mA transmitter or a Dräger Polytron® SE Ex measuring head.

Accessories

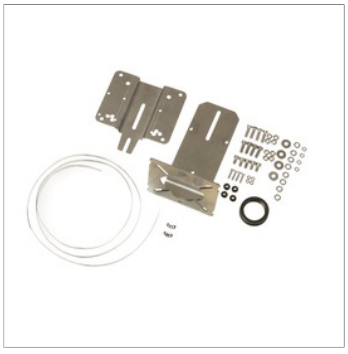


ST-5685-2006

Splash guard

Protection of measuring cuvette against contamination and dust, water-resistant, included as standard.

Order No.: 68 10 796



ST-5733-2006

Duct mount set

Assembly of sensors directly in pipelines, maintenance item for simple calibration.

Order No.: 68 10 995



ST-5666-2006

Process adapter

Sampling or process applications, with gas inlet and gas outlet.

Order No.: 68 11 330



ST-5683-2006

Calibration adapter

Calibration of the sensor (with mounted splash guard), up to wind speeds of 10 Bft, included as standard.

Order No.: 68 10 859

Accessories



ST-5685-2006

Dirt guard

Dual-wall enclosure to prevent build up of dirt, e.g. salt-crust.
Order No.: 68 11 135

Related Products



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.

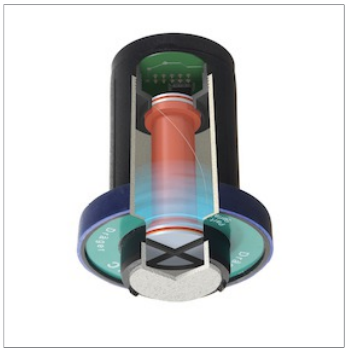


ST-11659-2007

Dräger PIR 7000

The Dräger PIR 7000 is an explosion proof point infrared gas detector for continuous monitoring of flammable gases and vapours. With its stainless steel SS 316L enclosure and drift-free optics this detector is built for the harshest industrial environments, e.g. offshore installations.

Related Products



D-19051-2016

Electrochemical DrägerSensor®

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.

Technical Data

Type	Explosion proof infrared gas sensor	
Working principle	Temperature-compensating infrared absorption	
Gases and ranges	Methane, propane, ethylene: 0 to 100 %LEL (further substances on request)	
Measuring performance (methane)	Digital resolution	0.5 %LEL
	Repeatability	≤ ± 2 %LEL
	Response time $t_{0...90}$	≤ 30 seconds (with splash guard and calibration adapter)
Electrical data	Output signal	45 to 55 % of supply voltage (half-bridge emulation)
	Failure signal	Close to negative supply voltage
	Power supply	200 to 400 mA DC or 2 to 5 V DC
	Power consumption	≤ 1 W
Ambient conditions	Temperature	– 40 to + 65 °C / – 40 to + 150 °F
	Pressure	700 to 1300 hPa / 23.6 to 32.5 inch Hg
	Humidity	0 to 100 %RH
Enclosure	Material	Stainless steel SS 316
	Connecting thread	M25 or 3/4" NPT
	Weight	550 g
	Size	170 mm x Ø 37 mm / 6.7" x Ø 1.45"
	Ingress protection	IP 65, IP 66 and IP 67
Approvals	ATEX	II 2G Ex d(e) IIC T6, II 2D Ex tD A21 IP6X T80 °C
	IECEx	Ex d(e) IIC T6, Ex tD A21 IP6X T80 °C
	UL	Class I, Div. 1, Groups A, B, C, D, Class II, Div. 1, Groups E, F, G
	CSA	Class I, Div. 1, Groups A, B, C, D
	CE mark: electromagnetic compatibility (directive 89/336/EEC)	

Ordering Information

DrägerSensor IR (M25)	68 11 100
DrägerSensor IR (NPT)	68 11 110
DrägerSensor IR (for Dräger Polytron Fx)	68 11 111
DrägerSensor IR (for Dräger Polytron 2 XP Ex)	68 11 300
DrägerSensor IR complete set e	68 11 165
DrägerSensor IR complete set e2	68 11 265
DrägerSensor IR complete set d	68 11 185

All sensors are equipped with splash guard and calibration adapter. The complete set contains a junction box, already pre-assembled.

Notes

Not all products, features, or services are for sale in all countries.
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