

Dräger PIR 3000 Flammable Gas Detection

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.



Benefits

Failsafe infrared technology and low cost of ownership

The superior performance characteristics of infrared technology (such as poison immune and "fail-safe" operation) have been known and valued in gas detection for many years. The PIR 3000 now offers these performance benefits more affordably, combined with low maintenance costs and a long life time of more than 15 years, cost of ownership is significantly reduced.

Smart and flexible

The PIR 3000 offers a gas library with three gas categories: methane, propane and ethylene. Therefore, nearly all hydrocarbons are detectable. In addition, temperature-compensated linearisation curves allow for signal output 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.

Suitable for the harshest conditions

Based on its exceptional product quality, the PIR 3000 offers high reliability and excellent measuring performance, in relation to long-term stability. With GRP junction box and 316 stainless steel enclosure, a temperature range of - 40 to + 65 °C (- 40 to + 149 °F) and heated measurement optics driving off compensation from the lens, the PIR 3000 is suitable for all the worlds climate zones.

Performance features

- Temperature-compensated 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
- Analog 4 to 20 mA output signal (universal)
- Specified temperature range from - 40 °C to + 65 °C / - 40 °F to + 149 °F
- Unrestricted usage in humid atmospheres
- Hermetically sealed 316 stainless steel enclosure
- 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



2-466-95

Dräger REGARD® control system

Tried and tested thousands of times and infinitely flexible. The modular Regard® control system can be individually adapted to any monitoring task. Suitable for SIL 2 systems, the Regard® system is also ATEX approved, and meets EMC directive standards.



ST-3335-2004

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.



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.

Accessories



Splash guard

Guards the measuring cuvette against dirt and dust, water-repellent, fitted as standard. Order No.: 68 10 796



Process adapter

Sampling or process applications with gas inlet and outlet. Order No.: 68 11 330



Calibration adapter

Transmitter calibration (with mounted splash guard), up to wind force 10 Bft, fitted as standard. Order No.: 68 10 859



Weather Guard

Double-walled enclosure to prevent dirt deposits, e.g. salt crust. Improves resistance to extreme weather conditions. Order No.: 68 11 135

Related Products



D-32406-2011

Dräger Polytron® 5310

Quick, reliable and cost-effective detection of combustible gases and vapors in ambient air: the microprocessor-based Dräger Polytron® 5310 transmitter is the result of more than 40 years of experience in measurement technology and contains a durable, poison-resistant IR sensor.



ST-11689-2007

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.



D-11158-2011

Dräger PEX 3000

The transmitter Dräger PEX 3000 detects flammable gases and vapors in concentrations below their Lower Explosion Limit. Its DD-sensor provides a very long-term stable measuring signal and responds to gas in only a few seconds.

Technical Data

Type	Explosion proof gas detector with infrared sensor technology	
Working principle	Temperature-compensated 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	$\leq \pm 2$ %LEL
	Response time $t_{0.90}$	≤ 30 seconds (with splash guard and calibration adapter)
Electrical data	Output signal	4 to 20 mA
	Fault signal	1 mA
	Power supply	10 to 30 V DC
	Power consumption	≤ 2 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 \varnothing 37 mm / 6.7" x \varnothing 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

Dräger PIR 3000 (M25)	68 10 810
Dräger PIR 3000 (NPT)	68 11 080
Dräger PIR 3000 complete set e	68 11 160
Dräger PIR 3000 complete set e2	68 11 270
Dräger PIR 3000 complete set d	68 11 180

All transmitters are equipped with splash guard and calibration adapter.

The complete set contains a junction box, already pre-assembled.

Notes

Notes

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