

Dräger PIR 3000 Detection of flammable gases and vapours

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



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®.



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.



D-27771-2009

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 IR

The Dräger Polytron® 5310 IR is a cost effective explosion-proof transmitter for the detection of flammable gases in the lower explosion limit (LEL). It uses an infrared DrägerSensor® IR that can be configured for methane, propane, or ethylene. A 3-wire 4 to 20-mA analogue output with relays makes it compatible with most control systems.

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.

D-11168-2011



Dräger PEX 3000

The transmitter Dräger PEX 3000 detects flammable gases and vapours in concentrations below their lower explosive limit. Its DD-sensor provides a long-term stable measuring signal and responds to gas within a few seconds.

Technical Data

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|---------------------------------|---|--|
| 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

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|---------------------------------|-----------|
| 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

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