Dräger PEX 3000
Detection of flammable gases and vapours

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.

D-11158-2011

Dräger. Technology for Life®

Benefits

Six variants of transmitters

You can choose between two measuring ranges (0 ... 100 or 0 ... 10 %LEL) and two different junction box sizes. The larger junction box provides optional horizontal or vertical cable entry. Where the application asks for the sensor to be mounted remote from the junction box then it is possible to use the remote cable assembly combined with the sensing head of type Polytron SE Ex.

Simple installation

The three core screened cable from the control system terminates within the junction box of the Dräger PEX 3000 by means of three Ex-approved spring terminals. The sensor connects to three different Ex-approved spring terminals. Ex-approved spring terminals are not selfloosening and are inherently more reliable then standard screw terminals, therefore self-loosening is no longer an issue!

One-man Calibration

Owing to the state-of-the-art design of the Dräger PEX 3000 it is possible to open the Ex e junction box in the hazardous area to perform maintenance and calibration. Using the two internal push buttons and the internal seven segment digital display you can perform many different activities including one-man calibration. No additional hardware is required, e.g. a hand held terminal.

Explosion Protection

The Dräger PEX 3000 is approved according to the EU-Directive 94/9/EC to be operated at ambient temperatures ranging from - 40 up to + 65 °C. This applies to both explosive gas atmospheres and explosive dust atmospheres (Zones 1, 2, 21, and 22).

Low gas concentrations

For applications where it is necessary to detect low concentrations then the transmitters Dräger PEX 3000 type XTR 0010 or XTR 0011 with their special low-drift LC sensor are very suitable. These transmitters reliably detect gas leaks of concentrations up to 10 %LEL.

Newly developed: DD sensor

The new DD sensor is based on the well-known catalytic bead technology from Dräger and is designed and manufactured by Dräger for long term stability and resistance against sensor poisons. Furthermore, the new DD sensor uses an innovative non-sintered disc gas inlet therefore the reaction time towards the target gas in now only a few seconds. This fast speed of detection allows for countermeasures to be initiated earlier, therefore guarding against the formation of an explosive atmosphere.

System Components

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.

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.

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

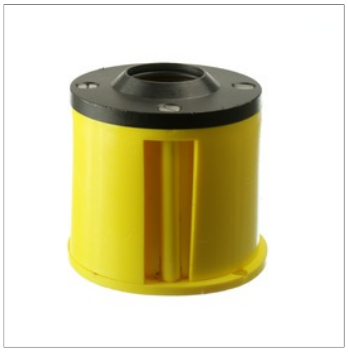
The Dräger REGARD®-1 is a standalone, self contained single channel control system for the detection of Toxic, Oxygen and Ex hazards. The control system is fully configurable for a single input from either a 4 to 20 mA transmitter or a Dräger Polytron® SE Ex measuring head.

Accessories


ST-5654-2006

Calibration chamber

A metal chamber to vaporise combustible liquids to develop vapours (e.g. acetone, benzene, hexane, nonane etc.) Used to for zero-point tests and calibration.
Order No.: 68 02 206


ST-5687-2006

Splash guards

Guards the DrägerSensors of transmitters with electrochemical sensors (not type L), catalytic sensors (pellistors) and transmitters of type Polytron IR CO_2 and Polytron IR Ex HC against splashing water.
Order No.: 68 07 549


ST-5678-2006

Calibration Adapter

Adapter for test of zero point and calibration for transmitters with electrochemical sensors (not type L), catalytic bead sensors (Pellistors) and the transmitters of the type Dräger Polytron IR CO_2 and Dräger Polytron IR Ex HC.
Order No.: 68 06 978


ST-5679-2006

Remote calibration adapter

For calibrations of transmitters with electrochemical sensors (not type L), catalytic sensors (pellistors) and transmitters of type Polytron IR CO_2 and Polytron IR Ex HC that are mounted in difficult to access positions.
Order No.: 68 07 955

Related Products

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-14979-2010

Dräger Polytron® 5700 IR

The Dräger Polytron® 5700 IR is a cost effective explosion-proof transmitter for the detection of flammable gases in the lower explosive limit (LEL). It uses a high performance infrared Dräger PIR 7000 sensor that will quickly detect most common hydrocarbon gases. A 3-wire 4 to 20-mA analogue output with relays makes it compatible with most control systems.

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.

Technical Data

Type	4-to-20-mA-transmitter with catalytic bead sensor			
Gases and vapors	Flammable gases and vapors in the ambient air such as acetone, acetylene, ammonia, benzene, 1.3-butadiene, n-butane, n-butyl acetate, diethyl ether, dimethyl ether, ethanol, ethyl acetate, ethylene (ethene), ethylene oxide, n-hexane, hydrogen, methane, methanol, methyl ethyl ketone (MEK), methyl methacrylate, n-nonane, n-octane, n-pentane, petrol 065/095, propane, i-propanol, propylene (propene), propylene oxide, toluene and o-xylene			
Measuring range	Typ XTR 0000, XTR 0001		0 to 100 %LEL	
	Typ XTR 0010, XTR 0011		0 to 10 %LEL	
Power supply	12 to 30 V d.c. (nominal 24 V d.c.), max. 110 mA at 24 V			
Signal output	Normal operation 4 to 20 mA		Maintenance 3.4 mA	Fault condition < 1.2 mA
Cabling	3-core, shielded, core cross-section 0.75 to 1.5 mm^2, outer diameter 7 to 12 mm			
max. cable length (at 24 V, 250 Ohms)	2400 m at 3 x 1.5 mm^2, 1600 m at 3 x 1.0 mm^2, 1200 m at 3 x 0.75 mm^2			
Response time (at 25 °C, methane)	Type XTR 0000, XTR 0001		t50: 3 ... 5 s,	t90: 8 ... 10 s
	Type XTR 0010, XTR 0011		t50 < 9 s,	t90 < 20 s
Ambient conditions	Temperature		- 40 to + 65 °C (depending on temperature class)	
	Pressure		700 to 1300 hPa	
	Humidity		5 to 95 % r. H.	
Housing material	glass fiber reinforced polyester (GRP)			
Ingress Protection	IP 66			
Dimensions (W x H x D)	Type XTR 00x0		ca. 80 x 130 x 55 mm	
	Type XTR 00x1		ca. 135 x 110 x 55 mm	
Weight	ca. 600 g			
Expected sensor lifetime	typical > 3 years			
Explosion protection	except XTR 009x:	II 2G Ex de IIC T6/T5/T4 Gb	II 2D Ex t IIIC T80/95/130 °C Db IP6X	- 40 ≤ Ta ≤ + 40 / 55 / 65 °C
	XTR 009x:	II 2G Ex de IIC T6 Gb	II 2D Ex t IIIC T80 °C Db IP6X	- 40 ≤ Ta ≤ + 65 °C
Performance approval	acc. to EN 60079-29-1 for the a.m. gases and vapors (100 %LEL variants only)			
Functional Safety (100 %LEL variants only)	Average probability of failure on demand (TP = 1 year)		PFD = 5.56E-04	
	Safe failure fraction (HFT = 0, Type B)		SFF = 90.4 %	

Ordering Information

PEX 3000, Type XTR 0000, small housing, 0 to 100 %LEL	83 18 280
PEX 3000, Type XTR 0001, medium-sized housing, 0 ... 100 %LEL	83 18 360
PEX 3000, Type XTR 0010, small housing, 0 ... 10 %LEL	83 18 290
PEX 3000, Type XTR 0011, medium-sized housing, 0 ... 10 %LEL	83 18 370
PEX 3000, Type XTR 0090, small housing, remote transmitter without sensor	83 18 380
PEX 3000, Type XTR 0091, medium-sized housing, remote transmitter without sensor	83 18 390
Dust filter for DrägerSensor PR M DD (PE-disks, 10 pieces)	68 10 537
Calibration adapter (PE)	68 06 978
Process adapter (stainless steel) for PEX 3000 XTR 0000, XTR 0001	68 12 470
Process adapter (stainless steel) for PEX 3000 XTR 0010, XTR 0011	68 12 465

Notes

Notes

90 41 354 | 15-05-3 | Marketing Communications | PP | LE | Printed in Germany | Chlorine-free – environmentally compatible | Subject to modifications | © 2015 Drägerwerk AG & Co. KGaA

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