

Dräger PEX 3000 Fixed Gas Detector

The transmitter Dräger PEX 3000 is a gas detector for the continuous monitoring of flammable gases and vapours in the ambient air. The gas concentration, which is detected in a range lower than the Lower Explosive Limit (100 %LEL), is converted to an industry standard 4 to 20 mA signal.



Central controllers, like the Dräger REGARD are used to evaluate the signal and activate automatic countermeasures and alarm devices. When opening the enclosure, a two digit 7 segment display with two push buttons is accessible to perform menu guided calibration and maintenance. With the type XTR 0090, a remote version is also available. Other enclosure versions with cable glands on the side are available.

EASY TO INSTALL

Three leads of the measuring cable (max. length 2.400 m, shielding is recommended) are pushed into the ex-approved spring cage clamps. The electrical connection is extremely reliable.

ONE MAN CALIBRATION

Maintenance of the Dräger PEX 3000 can be performed by opening the transmitter - without declassifying the hazardous area. By means of two push buttons and a two digit 7 segment display, the calibration procedure is menu guided without needing an additional hand-held terminal.

COMPREHENSIVE EXPLOSION PROTECTION

The Dräger PEX 3000 is approved according to the ATEX directive for a tem-

perature range between -40 and $+65$ °C. The approval is for potentially explosive gas- and dust-atmospheres (zones 1, 2, 21, and 22). Furthermore, the Dräger PEX 3000 is performance approved by the Notified Body TÜV Süd in accordance to the harmonized ATEX-standards EN 61779-1, EN 61779-4 and EN 50271, and by this is suitable for preventive explosion protection measures.

DETECTION OF VERY LOW CONCENTRATIONS

The transmitter Dräger PEX 3000 type XTR 0010 is equipped with a special low drift sensor for reliable detection of gas concentrations between 0 and 10 %LEL.

SYSTEMS SOLUTIONS

The sensors are based on the catalytic bead measuring principle and contain poison resistant Dräger beads, which have been proven for decades. The small shock-resistant enclosure (EEx e) is made of conductive, glass fiber reinforced polyester. Combined with a suitable 4 to 20 mA controller the Dräger PEX 3000 transmitters satisfy the customers' requirements for maximum safety and system availability.



ST-5664-2004

Dräger PEX 3000
Type XTR 0000 – robust transmitter for standard applications.



ST-5661-2004

Dräger PEX 3000
Transmitter opened to show the flameproof 4 to 20 mA converter.

TECHNICAL DATA

Type	Transmitter with catalytic bead sensor (pellistor measuring principle)	
Gases	Flammable gases and vapors in ambient air	
Measuring range	Type XTR 0000 and 0001	0 to 100 %LEL
	Type XTR 0010 and 0011	0 to 10 %LEL
Power supply	12 to 30 VDC (nominal 24 VDC) max. 110 mA at 24 V	
Signal output	Normal operation	4 to 20 mA
	Warning	3.4 mA
	Fault	< 1.2 mA
Cabling	3-wire, shielded, core size 0.75 to 1.5 mm ² , outer diameter 7 to 12 mm	
Max. cable length (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 and 0001	t ₅₀ : < 6 s, t ₉₀ : < 15 s
	Type XTR 0010 and 0011	t ₅₀ : < 9 s, t ₉₀ : < 20 s
Ambient conditions	Temperature	- 40 to + 65 °C
	Pressure	700 to 1300 mbar
	Humidity	5 to 95 %RH
Enclosure	IP 65 and 66, glasfiber reinforced polyester	
Dimensions (W x H x D)	Type XTR 0000, 0010, 0090:	approx. 80 x 145 x 55 mm
	Type XTR 0001, 0011, 0091:	approx. 110 x 145 x 55 mm
Weight	approx. 600 g	
Expected lifetime	typical > 3 years	
Approvals	ATEX	II 2GD EEx de IIC T6/T5/T4, - 40 ≤ T _a ≤ + 40 / + 55 / + 65 °C
	CE-mark	electromagnetic compatibility (directive 89/336/EEC)
Functional safety (SIL)	Average probability of failure on demand (T _P = 1 year)	PFD = 5.56E-04
	Safe failure fraction (HFT = 0, Type B)	SFF = 90.4 %

ORDER INFORMATION

Dräger PEX 3000, type XTR 0000, 0 to 100 %LEL	83 18 280
Dräger PEX 3000, type XTR 0010, 0 to 10 %LEL	83 18 290
Dräger PEX 3000, type XTR 0090, Remote Transmitter	83 18 380
Dräger PEX 3000, type XTR 0001, 0 to 100 %LEL	83 18 360
Dräger PEX 3000, type XTR 0011, 0 to 10 %LEL	83 18 370
Dräger PEX 3000, type XTR 0091, Remote Transmitter	83 18 390
Calibration adapter	68 06 978

HEADQUARTERS:

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