

# Dräger PEX 3000 Fixed Gas Detector

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.



## 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 self-loosening and are inherently more reliable than 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 is 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.



D-11158-2011

**Dräger PEX 3000 Typ XTR 0000**  
Your transmitter for standard applications: small and robust



ST-5683-2004

**Dräger PEX 3000 Typ XTR 0001**  
Your transmitter especially for outdoor applications

## 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 <sup>2</sup> , outer diameter 7 to 12 mm		
max. cable length (at 24 V, 250 Ohms)	2400 m at 3 x 1.5 mm <sup>2</sup> , 1600 m at 3 x 1.0 mm <sup>2</sup> , 1200 m at 3 x 0.75 mm <sup>2</sup>		
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 %

## BESTELLINFORMATION

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

### HEADQUARTERS

Dräger Safety AG & Co. KGaA  
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### SYSTEM CENTERS

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