Polytron 2 XP Ex

The Polytron 2 XP Ex is an explosion proof gas detector for continuous monitoring of combustible gases and vapors in ambient air. The transmitter converts the signal from a catalytic bead or IR sensor to a 4 to 20 mA analog or HART® or RS 485 digital signal output. The unit is designed for one-man calibration, and offers a variety of diagnostics and self test features. The configuration and calibration of the transmitter is menu guided and easy to perform, using either the infrared remote control, the built-in push buttons, or a HART hand held terminal. With the optional relays, Polytron 2 XP Ex can be operated as 'stand alone' unit.

Polytron 2 XP Ex:
Catalytic bead sensor to detect combustible gases and vapors.

Polytron 2 XP Ex IR:
DraegerSensor IR to detect combustible gases and vapors.

Easy to install

The enclosure provides two mounting holes. For easy wiring, the electronics is enclosed in a 'bucket', and can be pulled out as one unit, held by a tether. The three wire cable, fed through a sealed conduit, is terminated in a pluggable connector at the printed circuit board.

One man calibration

All setup and maintenance can be performed without opening the transmitter or declassifying the hazardous area. An infrared remote control, beaming through the window, gives full access to the menu and calibration procedure. The menu can also be accessed using the built-in push buttons or a HART hand held terminal. All menu items and messages are displayed in plain English. Other, user selectable languages are French, Spanish and German.

DraegerSensor technology

Polytron 2 XP Ex offers two sensing principles: catalytic combustion or infrared. The interior design of the catalytic bead sensor offers an extremely high sensitivity. Higher sensitivity also means shorter response times, higher accuracy and improved stability of the sensor signal. The advanced poison resistant DraegerSensor PR has a significantly longer lifetime.

The DraegerSensor IR is the sensor of choice, where 'poisonous' gases might be in the ambient air. Over time, these can damage the catalyst of a catalytic bead sensor, decreasing its sensitivity. In order to reduce maintenance costs for recalibration and exchange, the infrared technology offers a superior solution.

Stand alone system

With the three built-in relays, Polytron 2 XP Ex can be used as an independent stand alone unit. Two adjustable gas alarm levels and a fault alarm make it convenient to switch warning devices on-site, without having to run cables back and forth to a central controller. The sensor signal can still be transmitted using either the 4 to 20 mA, HART® or RS 485 signal output.

Features/Benefits:

- Poison resistant catalytic bead sensor
- High performance infrared sensor
- Fast, accurate response
- Non-intrusive calibration
- Backlit LC-Display
- 4 to 20mA, HART, RS 485 interface
- Multidrop capability, reduced wiring costs
- Optional relays on board
- ATEX, UL and CSA*) approved

Dräger safety

TECHNICAL DATA

Type	Explosion proof transmitter		
Gases and Ranges	Combustible gases and vapors; 0 to 100 %LEL		
Display	Backlit LCD; 2 lines, 20 characters; resolution 1 %LEL Menu structure and messages in real text		
Output Signal	Analog	Normal operation	4 to 20 mA
		Warning, configurable	fault signal every 10 s for 1 s, or off; user programmable
		Maintenance	4 ± 1 mA 1 Hz modulation, or steady; user programmable
		Fault	< 3.2 mA
	Digital	HART®, RS 485	
Relays (optional)	Two alarm relays, one fault relay SPDT; user programmable Rating: 5A 230 VAC, 5A 30 VDC		
Supply Voltage	10 to 32 VDC, 3-wire		
Ambient Conditions	Temperature	40 to + 175 °F / - 40 to + 80 °C *) 40 to + 150 °F / - 40 to + 65 °C **)	
	Pressure	20.7 to 38.4 inch Hg / 700 to 1300 mbar	
	Humidity	0 to 100 %RH	
Enclosure	NEMA 4X & 7, IP 66; 3/4" NPT female conduit entry		
Size (h x w x d, approx.)	7" x 5" x 5" / 180 x 130 x 130 mm *) 12" x 5" x 5" / 305 x 130 x 130 mm **)		
Weight (approx.)	4.6 lbs / 2.1 kg *) 5.7 lbs / 2.6 kg **)		
Approvals	UL, CSA	Class I, Div 1, Group B, C, D *) Class I, Div 1, Group B, C, D; Class II, Div 1, Group E, F, G **)	
	ATEX	II 2GD EEx d IIC T6/T4, - 40 ≤ T_{amb} ≤ + 40 / + 80 °C 0 °C II 2GD EEx d IIC T6/T4, - 40 ≤ T_{amb} ≤ + 40 / + 65 °C **)	
	CE-mark	electromagnetic compatibility (directive 89/336/EEC)	

ORDER INFORMATION

Polytron 2 XP Ex with catalytic bead sensor, without relays; UL version	45 43 005
Polytron 2 XP Ex with catalytic bead sensor and relays; UL version	45 43 000
Polytron 2 XP Ex with catalytic bead sensor, without relays; ATEX, CSA	45 43 060
Polytron 2 XP Ex with catalytic bead sensor and relays; ATEX, CSA	45 43 059
Polytron 2 XP Ex with IR sensor, without relays; UL version	45 43 223
Polytron 2 XP Ex with IR sensor and relays; UL version	45 43 224
Polytron 2 XP Ex with IR sensor, without relays; ATEX version	45 43 227
Polytron 2 XP Ex with IR sensor and relays; ATEX version	45 43 229

*) with catalytic bead sensor
**) with IR sensor, UL and ATEX approved only
HART® is registered trademark of HCF, Austin, TX

90 44 234 | PI | 086 | CR-PR | Printed in USA | chlorine free - ecological | subject to modification!

Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

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