Polytron FX

The Polytron FX is an economical, microprocessor-based gas detector for continuous monitoring of combustible gases and vapors. Non-intrusive calibration and maintenance is performed using a magnetic wand to access the software through the enclosure window – no need to open the enclosure (and obtain special area permits) to perform routine calibrations.

Polytron FX:
Catalytic bead sensor to detect combustible gases and vapors.

Polytron FX IR:
DraegerSensor IR to detect combustible gases and vapors.

Easy to install
The enclosure provides two mounting holes. For easy wiring, bezel and electronics are one unit, and can be pulled out. 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 is performed without opening the transmitter or declassifying the hazardous area. Tapping a magnetic wand at the three buttons through the window gives full access to the menu and the calibration procedure. No need for an additional handheld terminal.

DraegerSensor technology
Polytron FX 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.

Detection of very low concentrations
The Polytron FX can be equipped with a special low drift sensor for the reliable detection of gas concentrations between 0 and 10 %LEL. This allows for the detection of small leaks at a very early stage.

Features and Benefits:
- Economical
- Non-intrusive calibration
- DraegerSensor technology
- Simple software menu

Drägersafety

TECHNICAL DATA

Type	Explosion proof transmitter	
Gases and Ranges	Combustible gases and vapors, 0 to 100 %LEL or 0 to 10 %LEL	
Display	3 digit LCD; resolution 1 %LEL	
Signal Output	Normal operation	4 to 20 mA
	Maintenance	4 mA ± 1 mA 1 Hz modulation, or steady 3 mA; user selectable
	Fault	< 2 mA
Supply Voltage	16 to 30 V DC, 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	Powder-coated aluminum transmitter housing, Stainless steel sensor housing	
Enclosure rating	NEMA 4X & 7, IP 66; 3/4" NPT female conduit entry	
Size (h x w x d, approx.)	6.5" x 4.5" x 4" / 165 x 115 x 100 mm *)	
	11.5" x 4.5" x 4" / 295 x 115 x 100 mm **)	
Weight (approx.)	3.3 lbs / 1.5 kg *)	
	4.2 lbs / 1.9 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 *)
		II 2GD EEx d IIC T6/T4, - 40 ≤ T_{amb} ≤ + 40 / + 65 °C **)
	CE-mark	electromagnetic compatibility (directive 89/336/EEC)

*) with catalytic bead sensor
**) with IR sensor, UL and ATEX approved only

ORDER INFORMATION

Polytron FX with catalytic bead sensor, 0 to 100 %LEL; UL version	45 43 445
Polytron FX with catalytic bead sensor, 0 to 100 %LEL; ATEX, CSA	45 43 450
Polytron FX with catalytic bead sensor, 0 to 10 %LEL; ATEX version	45 43 457
Polytron FX with IR sensor, 0 to 100 %LEL; UL version	45 43 465
Polytron FX with IR sensor, 0 to 100 %LEL; ATEX version	45 43 464
Magnetic wand for menu access	45 43 428