

## Polytron 2 XP Tox



ST1-418-2006

The Polytron 2 XP Tox is an explosion proof gas detector for continuous monitoring of toxic gases and Oxygen in ambient air. The transmitter converts the signal from an electrochemical 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 Tox can be operated as 'stand alone' unit.



ST1-1392-2006

**Polytron 2 XP Tox:**  
Electrochemical sensor to detect toxic gases and Oxygen.

### 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

High sensitivity, long term stability and no false alarms are the hallmark of the new and improved third generation of sensors. Sensors are the keystones of any gas detection system. Fastest response to the

target gas combined with minimal interference by other gases or environmental influences (no false alarms) as well as the sensor life-time determine the reliability and the operating cost of a system.

### Stand alone system

With the three built-in relays, Polytron 2 XP Tox 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:

- DraegerSensor® technology
- 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

## TECHNICAL DATA

Type	Explosion proof transmitter		
Gases and Ranges	Toxic gases and Oxygen in user selectable ranges (see sensor data sheet)		
Display	Backlit LCD; 2 lines, 20 characters Menu structure and messages in real text		
Signal Output	Analog	Normal operation	4 to 20 mA
		Warning, configurable	fault signal every 10 s for 1 s, or off; user programmable
	Digital	Maintenance	4 ± 1 mA 1 Hz modulation, or steady; user programmable
		Fault	< 3.2 mA
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 + 150 °F / - 40 to + 65 °C	
	Pressure	20.7 to 38.4 inch Hg / 700 to 1300 mbar	
	Humidity	0 to 100 %RH (see sensor data sheet)	
Enclosure	NEMA 4X & 7, IP 66; 3/4" NPT female conduit entry		
Size (h x w x d, approx.)	10 3/4" x 5" x 5" / 275 x 130 x 130 mm		
Weight (approx.)	5.3 lbs / 2.4 kg		
Approvals	UL, CSA	Class I, Div 1, Group B, C, D	
	ATEX	II 2G 3D EEx d [ia] IIC T6/T4, - 40 ≤ T <sub>amb</sub> ≤ + 40 / + 65 °C	
	CE-mark	electromagnetic compatibility (directive 89/336/EEC)	

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## ORDER INFORMATION

Polytron 2 XP Tox without sensor and relays; UL, CSA, ATEX version	45 43 070
Polytron 2 XP Tox without sensor, with relays; UL, CSA, ATEX version	45 43 200