

## DRAEGER

## Dräger Polytron® 8100 Toxic Gas Transmitter



The Dräger Polytron® 8100 is an advanced explosion proof transmitter for the detection of toxic gases or monitoring oxygen levels. It uses DrägerSensor® long-life electrochemical sensors to detect toxic gases (H<sub>2</sub>S, CO, NO<sub>2</sub>) or monitor oxygen. Besides a 3 wire 4 to 20 mA analog output with relays, it also offers Modbus and Fieldbus protocols making it compatible with most control systems.

### Benefits

- Fast and stable DrägerSensor® electrochemical sensors with long-life expectancy (e.g. oxygen sensor can last > 5 years).
- Smart sensors hold calibration for 6 – 12 months
- Easy device management via digital communication
- Three relays for controlling external equipment
- Robust Aluminum or Stainless Steel XP housing options

### Technical Data

#### Dräger Polytron® 8100 EC

**Type** Explosion proof / flameproof enclosed transmitter ("d")

**Gases measured:** O<sub>2</sub> (0 – 25% Volume), H<sub>2</sub>S (0 – 100 ppm), CO (0 – 5000 ppm), NO<sub>2</sub> (0 – 20 ppm)

**Power** 10 to 30 V DC, 3-wire **Display** Backlit graphic LCD; 3 Status LEDs (green/yellow/red)

**Analog Output** 4 to 20 mA ; **Digital Output** HART®; (optional) PROFIBUS® PA, FOUNDATION fieldbus™ H1 and Modbus RTU

**Relay specification (option)** 2 alarm relays, 1 fault relay, single-pole two-way contact 5 A @ 230 VAC, 5 A @ 30 VDC, resistance-bound

**Temperature** -40 to 80°C (-40 to 176°F) without relay ; -40 to 70°C (-40 to 158°F) with relay

**Pressure** 20.7 to 38.4 inch Hg / 700 to 1,300 mbar; Humidity 0 to 100% r. h., non-condensing

**Transmitter housing** Epoxy coated copper-free aluminum or stainless steel SS316L **Sensor housing** PolyAmide

**Enclosure** protection type NEMA 4X & 7, IP65/66/67 **Cable entry** point 3/4" NPT threaded holes or M20 cable gland

**Dimensions** (H x W x D), approx. 11.0" x 5.9" x 5.1"/280 x 150 x 130 mm

**Weight** approx. Aluminum 4.9 lbs/2.2 kg; SS316L 8.8 lbs/4.0 kg

### Approvals

**UL** Class I, Div 1, Groups A, B, C, D; Class II, Div 1, Groups E, F, G; Class I, Zone 1, Group IIC; T-Code T6/T4

**CSA** Class I, Div 1, Groups A, B, C, D; Class I, Zone 1, Group IIC; T-Code T6/T4 CSA C22.2 No. 152

**IECEx** Ex d [ia] IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70°C ; Ex tb [ia] IIIC T135°C Db

**ATEX** II 2G Ex d [ia] IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70°C; II 2D Ex tb [ia] IIIC T135 °C Db

**CE markings** ATEX (Directive 2014/34/EU) Electromagnetic Compatibility (Directive 2014/30/EU) Low Voltage (Directive 2014/35/EU)

**Shipping approvals** DNV GL, ABS, MED approval B Certificate no. 61549/ 50 – 13 HH, MED approval D Certificate no. 12031 – 10 HH Performance approval Certificate no. BVS 13 ATEX G 001 X

**SIL 2** certified by TÜV Sued Certificate no. Z10 1207 53474 013

### Ordering Information

Dräger Polytron® 8100 Aluminum d A 4-20/HART®	83 44 403
Dräger Polytron® 8100 Aluminum d A 4-20/HART® relay	83 44 404
Dräger Polytron® 8700 334 d S 4-20/HART®	83 44 610
Dräger Polytron® 8700 334 d S 4-20/HART® relay	83 44 611
'DrägerSensor® Oxygen 0-25% Volume	68 09 630
'DrägerSensor® Hydrogen Sulfide 0-100 ppm	68 09 610
DrägerSensor®, Carbon Monoxide 0-5000 ppm	68 09 620
Magnetic wand for Menu manipulation	45 44 101
Pipe mount bracket	45 44 198
Splash guard	68 12 510
Gassing adapter PE incl. tubing (for calibration and bump test)	45 09 314

