

DRAEGER

Dräger Polytron® 8700 InfraRed Transmitter



The Dräger Polytron® 8700 IR is an advanced explosion proof transmitter for the detection of flammable gases in the lower explosion limit (LEL) and % volume ranges. It uses a Dräger PIR 7000 IR Sensor, which will detect most flammable hydrocarbon gases and vapors. 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 PIR 7000 InfraRed sensor with >5 year operating life
- 334 (methane based) and 340 (propane based) versions offer maximum accuracy for a wide variety of hydrocarbon gases
- Easy device management via digital communication
- Same design, same operating principle in the entire Polytron 8000 series
- Three relays for controlling external equipment
- Robust Aluminum or Stainless Steel XP housing options

Technical Data

Dräger Polytron® 8700 IR

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

Gases measured: Flammable hydrocarbon gases and vapors **Measuring range** 0 to 100% LEL or 0 – 100% Volume

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** Stainless steel 316

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 4-20-mA HART® Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80°C; II 2G Ex db e IIC T6/T4 Gb

ATEX II 2G Ex db ia IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80°C;

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® 8700 Type 334 IR d A 4-20/HART®	83 44 601
Dräger Polytron® 8700 Type 334 IR d A 4-20/HART® relay	83 44 602
Dräger Polytron® 8700 Type 340 IR d A 4-20/HART®	83 44 637
Dräger Polytron® 8700 Type 334 IR d A 4-20/HART® relay	83 44 638
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
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)	68 11 610