

## Dräger Polytron 8000 Stationary gas detector (EC)

The microprocessor-based transmitter can be equipped with various electrochemical DrägerSensors. This way, you can easily detect oxygen and various toxic gases in the ambient air. In addition, the Polytron 8000 can also be integrated into your digital fieldbus system, thus providing additional diagnostic functions.

### SIMPLE INSTRUMENT MANAGEMENT THANKS TO DIGITAL COMMUNICATION

With its HART® ability, the Dräger Polytron 8000 allows remote access using the Dräger PolySoft software for the quick and convenient evaluation of the instrument status. Integration in existing management systems (e.g. PactWare) is also possible using DTM. In addition, fieldbus systems such as Foundation Fieldbus or Profibus are supported by corresponding interfaces.

### PROVEN – AND STILL GETTING BETTER: DRÄGER MEASUREMENT TECHNOLOGY

Dräger has been developing and manufacturing sensors and gas detectors for industrial use for more than 40 years. And with each new instrument generation, we drive our measurement technology a bit further. With the Polytron 8000, you will

definitely benefit from this experience and power of innovation:

- durable sensors
- short response times
- high sensitivity
- high accuracy
- low sensitivity to other gases or changing ambient conditions

### OPTIONAL: TWO MOUNTING SETS FOR EASY FLANGE-MOUNTING

The housing has four mounting holes. Two different mounting sets are available for installing the Polytron 8000: a duct-mount and a pipe-mount set. This means that the transmitter can be easily installed anywhere – e.g., on a smooth wall, a pipe or an exhaust duct.



5-2603-2012



D-52604-2012

**Dräger Polytron 8000**  
Flameproof transmitter for monitoring toxic gases and oxygen.

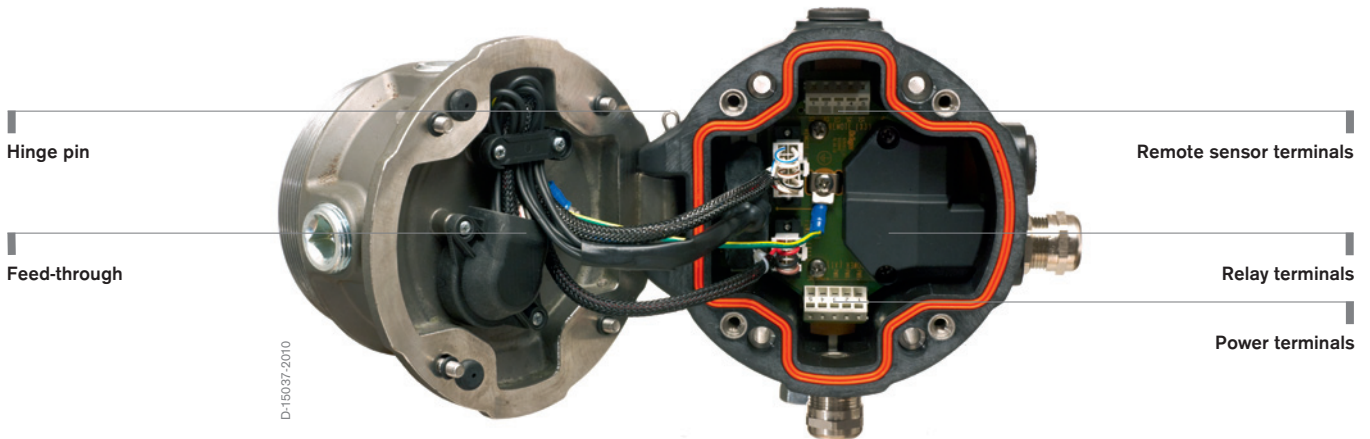
#### Same design, same operating principle: The Polytron 8000 series

The Dräger Polytron 8000 is part of the Polytron 8000 series. All transmitters of this series have the same design and user interface, which guarantees a uniform operating philosophy. Your advantage: less training requirement and easier maintenance.

#### Other transmitters of the Polytron 8000 series:

- Dräger Polytron 8200  
(CatEx stationary gas detector)
- Dräger Polytron 8310  
(DSiR stationary gas detector)
- Dräger Polytron 8700  
(PIR 7000 stationary gas detector)
- Dräger Polytron 8720  
(PIR 7200 stationary gas detector)

## DRÄGER POLYTRON 8000 WITH E-BOX / DOCKING STATION ATTACHED



### OPTIONAL: THREE RELAYS FOR CONTROLLING EXTERNAL EQUIPMENT

On request, the Dräger Polytron 8000 can be equipped with three integrated relays. This enables you to use it as an independent gas detection system with two arbitrarily adjustable concentration alarms and one fault alarm. Audio alarms, signal lights, or similar devices can, thus, be controlled locally – without an additional cable between the transmitter and a central controller. The sensor signal can be evaluated using the 4 to 20 mA signal.

### INTELLIGENT SENSORS

The Dräger Polytron 8000 can detect over 100 different gases. DrägerSensors are specifically designed for the demands of 24 hours a day, 365 days per year operation. The large DrägerSensor size gives them their renowned long life and superior measurement performance. The integrated sensor memory contains all relevant sensor data. This also allows the Polytron 8000 to accept pre-calibrated sensors, the Dräger Polytron 8000 is a virtually maintenance-free transmitter.

### SOFTWARE OPTIONS

With three different software dongles, a range of functions are incorporated into the transmitter adjusting it to user- or application-specific requirements.

#### Sensor Test Dongle

With this dongle, the Dräger Polytron 8000 performs many different patented sensor tests that ensure the reliability and functionality of the sensor and gas detection system.

#### Sensor Diagnostic Dongle

With the new sensor diagnostic function (including the sensor test), the stress and the remaining sensor life is evaluated so that maintenance and replacement cycles can be predicted and planned.

#### Data Dongle

Datalogger and eventlogger options are implemented in this dongle, which stores gas values and events such as faults and alarms. Using an IR interface, the data can be downloaded and evaluated on a PC using the Dräger PolySoft 8000 software package. Alternatively, a graphical 15 minute concentration history will be displayed on the transmitter screen, at the push of a button.

### FURTHER ADVANTAGES:

- Easy and cost-effective: one-man calibration
- Quick and easy wiring
- Available as flameproof or increased safety version
- Aluminium or 316 L stainless steel housing for the most extreme industrial conditions
- Extremely user-friendly software thanks to a minimum number of menu items
- Backlit display: easy to read, even in the dark and without a flash light
- Traffic light status indicator (green = no danger, yellow = error, flashing red = gas alarm)
- Intelligent sensors for predictive maintenance
- Freely adjustable measuring ranges (within permitted ranges)
- Matrix display allows the flexible setting of measuring ranges and units
- SIL 2 certified by the German TÜV Süd

## TECHNICAL DATA

### DRÄGER POLYTRON 8000

Type	Flameproof 'd' or combined increased safety 'd/e' transmitter			
Gases	Toxic gases and oxygen (depending on the sensor used)			
Measuring ranges	User adjustable (see sensor data sheet)			
Display	Backlit graphic LCD; 3 status LEDs (green/yellow/red)			
Electrical data	Analogue signal output	Normal operation	4 to 20 mA	
		Maintenance	Steady 3.4 mA or 4 mA $\pm$ 1 mA 1 Hz modulation; user selectable	
		Fault	< 1.2 mA	
	Digital signal output	HART®		
	Supply voltage	10 to 30 V DC, 3-wire		
	Relay rating (option)	2 alarm, 1 fault relay, SPDT 5 A @ 230 VAC, 5 A @ 30 VDC, resistive load		
	Ambient conditions (see also sensor data sheet)	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, non-condensing		
Enclosure	Transmitter housing	Epoxy-coated copper free aluminium or 316L stainless steel		
	Sensor housing	Polyamide		
	Enclosure rating	NEMA 4X & 7, IP 65/66/67		
	Cable entry	¾" NPT female conduit or M20 cable gland		
	Size (l x w x d, approx.)	without e-Box	11.0" x 5.9" x 5.1" / 280 x 150 x 130 mm	
		with e-Box	11.0" x 7.1" x 7.5" / 280 x 180 x 190 mm	
	Weight (approx.)	without e-Box, aluminium	6.6 lbs / 3.0 kg	
		without e-Box, 316 stainless steel	11.0 lbs / 5.0 kg	
		with e-Box, Aluminium	9.9 lbs / 4.5 kg	
		with e-Box, 316 stainless steel	14.3 lbs / 6.5 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 II, Div 1, Groups E, F, G Class I, Zone 1, Group IIC; T-Code T6 / T4		
	IECEx	Ex d [ia] IIC T6/T4 Gb, $-40 \leq T_a \leq +40/+70$ °C; 'd' version Ex de [ia] IIC T6/T4 Gb, $-40 \leq T_a \leq +40/+70$ °C; 'e' version; Ex tb [ia] IIIC T135 °C Db		
	ATEX	II 2G Ex d [ia] IIC T6/T4 Gb, $-40 \leq T_a \leq +40/+70$ °C; 'd' version II 2G Ex de [ia] IIC T6/T4 Gb, $-40 \leq T_a \leq +40/+70$ °C; 'e' version II 2D Ex tb [ia] IIIC T135 °C Db		
	CE markings	ATEX (Directive 94/9/EC) Electromagnetic Compatibility (Directive 2004/108/EC) Low Voltage (Directive 2006/95/EC)		

\*) All e-Box versions are only ATEX / IECEx approved.

\*\*) Pending

## ORDER INFORMATION

### DRÄGER POLYTRON 8000

	Aluminium 'd'	SS316L 'd'	Aluminium 'e'	SS316L 'e'
Without relays	45 44 403	45 44 412	45 44 421 *)	45 44 430 *)
With relays	45 44 404	45 44 413	45 44 422 **)	45 44 431 **)

\*) Order e-Box 68 12 420 for power only wires separately.

\*\*\*) Order e-Box 68 12 275 for power and/or relay wires separately.

Magnetic wand for menu access (blue body, white logo)					45 44 101
e-Box Power only version (includes 1 cable gland) / Docking Station					68 12 420
e-Box Power, Relay and/or Remote version (includes 2 cable glands) / Docking Station					68 12 275
Cable Gland e-Box					68 12 868
Sensor Test Dongle					83 17 619
Diagnostic Dongle					83 17 860
Data Dongle					83 17 618
Combined Dongle (Data and Sensor Test Dongle)					83 23 218
Combined Dongle (Data and Diagnostic Dongle)					83 23 219
Pipe Mount Kit					45 44 198
Duct Mount Kit					68 12 725
Duct Mount Adapter for Remote EC Sensing Head					83 17 617
EC Sensing Head Remote w/ mount kit					68 12 684
MEC Sensor Adapter Polytron 5000/8000					68 12 695
IR Connection Kit Polytron 5000/8000					45 44 197
PolySoft 8000		83 23 405	PolySoft 8000 premium		83 23 411
Connection cable w/ plug for Remote EC Sensing Head	16 ft / 5 m	83 23 305	49 ft / 15 m	83 23 315	98 ft / 30 m 83 23 330

### DrägerSensors

Acidic Compounds AC	68 10 595	H <sub>2</sub> O <sub>2</sub> HC	68 09 675	PH <sub>3</sub> /AsH <sub>3</sub>	68 09 695	NO <sub>2</sub>	68 09 655
Cl <sub>2</sub>	68 09 665	H <sub>2</sub> O <sub>2</sub> LC	68 09 705	Hydride	68 09 635	O <sub>2</sub>	68 09 720
CO	68 09 605	H <sub>2</sub> S	68 10 435	Hydride SC	68 09 980	O <sub>2</sub> LS	68 09 630
CO LS	68 09 620	H <sub>2</sub> S HC	68 09 710	N <sub>2</sub> H <sub>4</sub>	68 10 180	O <sub>3</sub>	68 10 290
CO LH	68 12 570	H <sub>2</sub> S LC	68 09 610	NH <sub>3</sub> HC	68 09 645	OV1	68 10 740
COCl <sub>2</sub>	68 09 930	HCl	68 09 640	NH <sub>3</sub> LC	68 09 680	OV2	68 10 745
H <sub>2</sub>	68 09 685	HCN	68 09 650	NO LC	68 09 625	SO <sub>2</sub>	68 09 660

### Accessories

Splash guard						68 12 510
Calibration Adapter			PE, Europe	68 06 978	PE	45 09 314
Calibration Adapter Viton						68 10 536