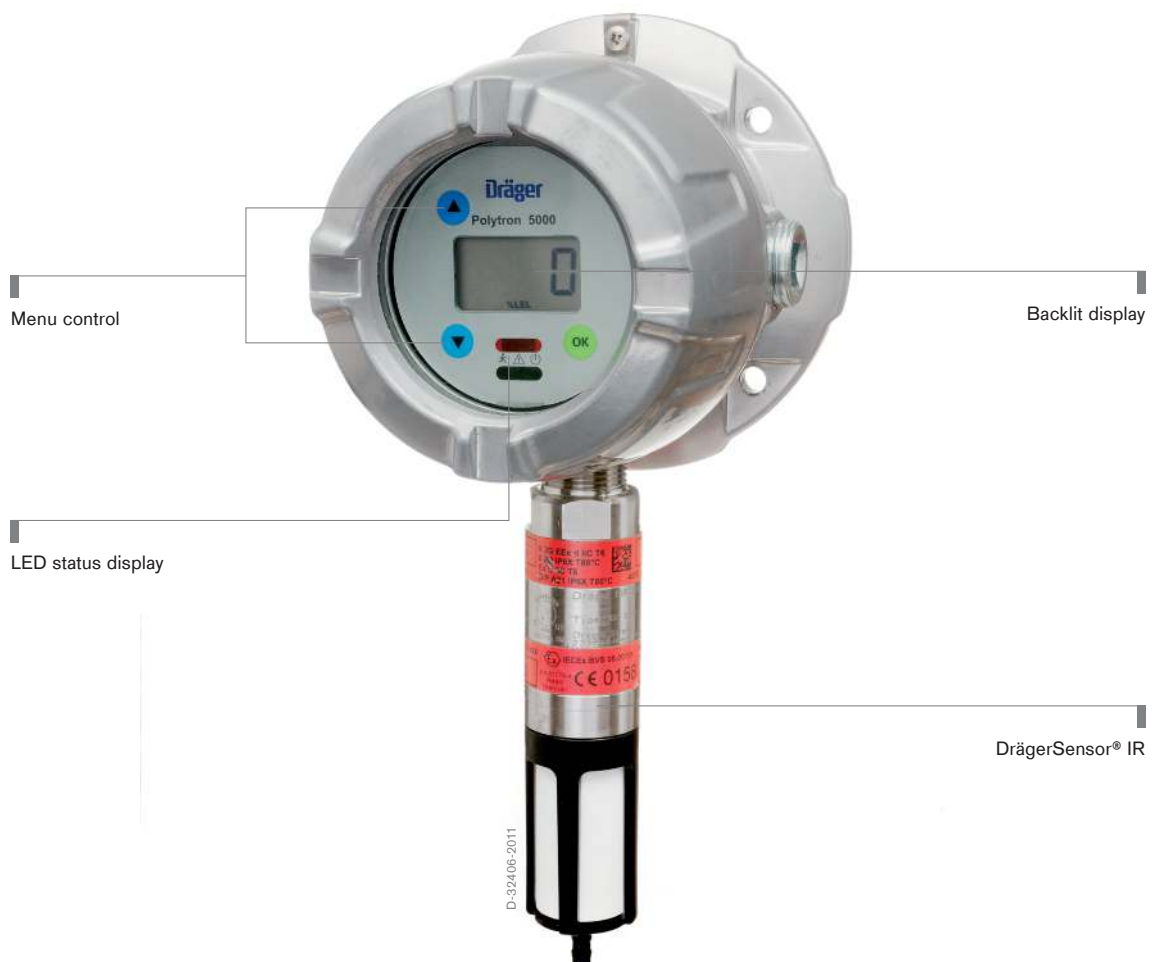


## Dräger Polytron® 5310 IR Detector for flammable gases and vapours

The Dräger Polytron® 5310 IR is a cost effective explosion-proof transmitter for the detection of flammable gases in the lower explosion limit (LEL). It uses an infrared DrägerSensor® IR that can be configured for methane, propane, or ethylene. A 3-wire 4 to 20-mA analogue output with relays makes it compatible with most control systems.



## Benefits

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### Poison-resistant and fail-safe – the DrägerSensor IR

DrägerSensor IR is a cost-effective alternative to catalytic bead sensors and offers a number of benefits. It is resistant to poisonous chemicals that can shorten a catalytic pellistor's life. Long life optics have lower maintenance costs compared to pellistors. IR technology is inherently fail-safe without any undisclosed drawbacks. These benefits provide improved performance with excellent long-term stability and fast response times.

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### Same design, same operating principles

Polytron 5310 belongs to the Dräger Polytron 5000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements. The backlit display shows status information clearly with quick access to functions using a non-intrusive magnetic wand. The gas concentration and measurement unit are displayed during normal operation. Coloured LEDs (green, yellow and red) provide additional alarm and status information.

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### Three relays for controlling external equipment

The Dräger Polytron 5310 can also be supplied with three integrated relays upon request. This enables you to use it as an independent gas detection system with two adjustable concentration alarms and one fault alarm. Audible alarms, signal lights, or similar devices can thus be controlled locally without an additional cable between the transmitter and central controller.

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### Safe, robust housing for every application

The Polytron 5310 features a Class I, Div. 1 rated explosion proof enclosure made from aluminum or stainless steel, making it suitable for a wide range of environmental conditions. A protection type "e" version includes a convenient docking station that allows installation in hazardous atmospheres without running conduit (where approved) and this also facilitates pre-assembly.

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### Make the impossible possible with the remote sensor

An available remote sensor conduit housing allows the sensor to be installed up to 30 metres away from the Polytron transmitter. The sensor splash guard with integrated tubing nipple enables one person to perform the full calibration of a remote mounted sensor from the transmitter.

## System Components



D-6806-2016

### Dräger REGARD® 7000

The Dräger REGARD® 7000 is a modular and therefore highly expandable control system for monitoring various gases and vapours. Suitable for gas warning systems with various levels of complexity and numbers of transmitters, the Dräger REGARD® 7000 also features exceptional reliability and efficiency. An additional benefit is the backward compatibility with the REGARD®.



D-1130-2010

### Dräger REGARD® 3900 Series

The devices of the Dräger REGARD® 3900 series can be used as standalone controllers. You can configure up to 16 measuring channels. In addition, the modular setup enables you to customise the control units to the demands of your plant. You can also embed further features to existing alarms.

## Accessories



D-85346-2013

### Duct mount kit

The duct mount kit enables gas monitoring inside ventilation ducts while keeping the transmitter outside.

## Accessories



### Weather Guard

The double-walled Weather Guard enclosure is recommended to be used whenever a contamination by salt crust, oil films, resins or similar substances is expected.

Use always in combination with the Splash Guard, suitable for wind speeds up to 27 m/s (10 Beaufort).



### Splash guard

The splash guard protects the sensor against splashes of water and dirt.



### Calibration adapter

Transmitter calibration (with mounted splash guard), up to wind force 10 Bft, fitted as standard.



### Process adapter

Sampling or process applications with gas inlet and outlet.

## Related Products



D-15018-2010

### Dräger Polytron® 8310 IR

The Dräger Polytron® 8310 IR is an advanced explosion proof transmitter for the detection of combustible gases in the lower explosion limit (LEL). It uses an infrared DrägerSensor® IR that can be configured for methane, propane or ethylene. Besides a 3 wire 4 to 20 mA analogue output with relays, it also offers HART®, Modbus and Fieldbus protocols making it compatible with most control systems.



ST-8822-2005

### Dräger PIR 3000

The Dräger PIR 3000 is an explosion proof infrared gas detector for continuous monitoring of combustible gases and vapors. Based on a stainless steel SS 316 enclosure as well as on a good measuring performance, this transmitter offers an excellent price-performance-ratio.

## Technical Data

### Dräger Polytron® 5310 IR

Type	Explosion proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")			
Gases	Flammable gases and vapours			
Measuring range	0 to 100% LEL			
Display	Backlit 4 digit LCD; 3 Status LEDs (green/yellow/red)			
Performance Characteristics	Accuracy/repeatability	Sensitivity	≤± 2 % LEL	
	Response time	T90	30 seconds (with splash guard)	
Electrical data	Signal output analogue	Normal operation	4 to 20-mA	
		Maintenance	Constant 3.4-mA or 4-mA ±1 mA 1 Hz modulation; (adjustable)	
		Fault	< 1.2 mA	
	Power supply	10 to 30 V DC, 3-wire		
	Relay specification (optional)	2 alarm relays and 1 fault relay, single-pole two-way contact 5 A @ 230 VAC, 5 A @ 30 VDC, resistance-bound		
Environmental conditions (see sensor data sheet)	Temperature	-40 to 65 °C (-40 to 149 °F) without relay		
		-40 to 65 °C (-40 to 149 °F) with relay		
	Pressure	20.7 to 38.4 inch Hg / 700 to 1,300 mbar		
	Humidity	0 to 100 % r. h., non-condensing		
Housing	Transmitter housing	Epoxy coated copper-free aluminum or stainless steel SS316 L		
	Sensor housing	Stainless steel SS316 L		
	Enclosure protection type	NEMA 4X & 7, IP65/66/67		
	Cable entry point	3/4 NPT threads or M20 cable gland		
	Dimensions (H x W x D), approx.	w/o docking station	11.0" x 5.9" x 5.1" / 280 x 150 x 130 mm	
		w/ docking station	11.0" x 7.1" x 7.5" / 280 x 180 x 190 mm	
	Weight, approx.	Aluminium w/o docking station	4.9 lbs / 2.2 kg	
SS316 L w/o docking station		8.8 lbs / 4.0 kg		
Aluminium w/ docking station		7.7 lbs / 3.5 kg		
SS316 L w/ docking station		11.0 lbs / 5.4 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 db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+65 °C; »d« version		
		Ex db eb IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+65 °C; »e« version Ex tb IIIC T80/130 °C Db		
	ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+65 °C; »d« version		
		II 2G Ex db eb IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+65 °C; »e« version II 2D Ex tb IIIC T80/130 °C Db		
	CE markings	ATEX (Directive 2014/34/EU)		
Electromagnetic Compatibility (Directive 2014/30/EU)				
Low Voltage (Directive 2014/35/EU)				
	Performance approval	TÜV 19 ATEX 8435X		

\* All docking station versions are ATEX/IECEX approved

## Ordering Information

<b>Dräger Polytron® 5310 IR</b>	<b>Approval Code</b>	<b>Order Number</b>
Dräger Polytron® 5310 IR d A	XTR 0200	83 44 370
Dräger Polytron® 5310 IR d A relay	XTR 0201	83 44 371
Polytron® 5xx0 Kit (Custom configuration e.g. stainless steel housing)		83 44 500

<b>Accessories</b>	<b>Order Number</b>
Magnetic wand	45 44 101
Pipe mount bracket	45 44 198
Duct mount kit	68 12 725
IR Connection Kit Polytron® 5000/8000	45 44 197
PolySoft licence (1 year)	83 28 600
PolySoft licence (subscription)	83 28 601
Process adaptor	68 11 330
Splash guard (spare part)	68 10 796
Weather protection kit Dräger Polytron® 5/6/8xxx	37 02 198
Weather guard	68 11 135

HART® is a registered trademark of the HART Communication Foundation.

Windows® is a registered trademark of Microsoft Corporation.

## Notes

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