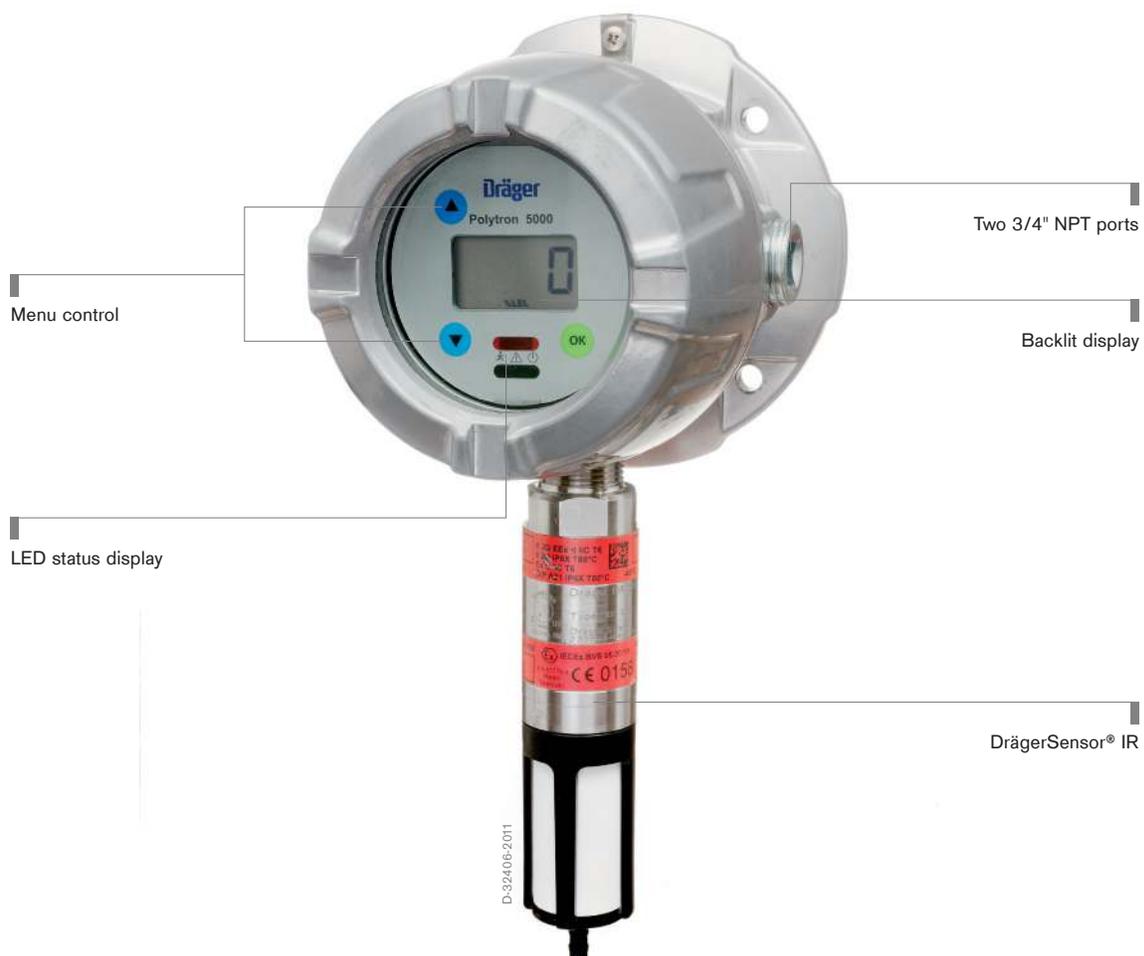


## Dräger Polytron® 5310 IR Detection of flammable gases and vapors

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 analog 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 while offering several benefits. It is poison-resistant against chemicals that can shorten a catalytic bead pellistor's life. Long life optics result in lower maintenance costs compared to pellistors. IR technology is inherently fail-safe, meaning no unrevealed failures. These benefits provide improved performance with excellent long-term stability and fast response times.

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### Same design, same operating principle

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. Colored LEDs (green, yellow and red) provide additional alarm and status information.

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### Three relays for controlling external equipment

Upon request, the Dräger Polytron 5310 can also be supplied 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 central controller.

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### Safe, robust housing for every application

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.

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### Make the impossible possible with the remote sensor

An available remote sensor condulet housing allows the sensor to be installed up to 30 meters (100 feet) away from the Polytron transmitter. The sensor splash guard with integrated tubing nipple permits one person to perform a 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 highly expandable control system for monitoring various gases and vapors. Ideal for gas warning systems with various levels of complexity and numbers of transmitters, the Dräger REGARD® 7000 delivers exceptionally reliability and efficiency. An additional benefit is the controller's 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 customize the control units to the demands of your plant. You can also embed further features to existing alarms.

## Accessories



ST-5665-2006

### 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).

## Accessories



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### Splash guard

The Splash guard protects the sensor against splash water and dirt.



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### Calibration adapter

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



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### Duct mount kit

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



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### Process adapter

Sampling or process applications with gas inlet and outlet.



## Technical Data

### Dräger Polytron® 5310 IR

|  |   |   |   |  |
|--|---|---|---|--|
| Type   | Explosion proof / flameproof enclosed transmitter ("d")   |   |   |  |
| Gases  | Flammable gases and vapors  |   |   |  |
| Measuring range                                  | 0 to 100 % LEL  |   |   |  |
| Display  | Backlit LCD; 3 Status LEDs (green/yellow/red)   |   |   |  |
| Electrical data                                  | Signal output analog  | Normal operation  | 4 to 20 mA  |  |
|  |   | Maintenance   | Constant 3.4 mA or 4 mA<br>±1 mA 1 Hz modulation;<br>(adjustable) |  |
|  |   | Fault   | < 1.2 mA  |  |
|  | Power supply  | 10 to 30 V DC, 3-wire   |   |  |
|  | Power consumption (max.)  | w/o relay, non-remote   | 95 mA at 24 V   |  |
|  |   | w/ relay, remote  | 145 mA at 24 V  |  |
| Relay specification (option)                     | 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 80 °C (-40 to 176 °F) without relay<br>-40 to 70 °C (-40 to 158 °F) with relay-<br>-50 to 85 °C (-122 to 185 °F) remote sensor |   |  |
|  | Pressure  | 23.6 to 38.4 inch Hg / 800 to 1,200 mbar  |   |  |
|  | Humidity  | 5 to 95% r. h., non-condensing  |   |  |
| Housing  | Transmitter housing   | Epoxy coated copper-free aluminium or stainless steel SS316 L   |   |  |
|  | Sensor housing  | Stainless steel 303   |   |  |
|  | 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)  | 11.0" x 5.9" x 5.1" / 280 x 150 x 130 mm  |   |  |
|  | Weight, approx.   | Aluminium   | 4.9 lbs / 2.2 kg  |  |
| SS316 L  |   | 8.8 lbs / 4.0 kg  |   |  |
| Approvals*                                       | UL & CSA  | Class I, Div 1, Groups A, B, C, D;<br>Class II, Div 1, Groups E, F, G;<br>Class I, Zone 1, Group IIC;<br>T-Code T6/T4                 |   |  |
|  | IECEX   | Ex db IIC T6/T4 Gb,<br>-40 ≤ Ta ≤ +40/+70 °C;   |   |  |
|  | ATEX  | II 2G Ex db IIC T6/T4 Gb,<br>-40 ≤ Ta ≤ +40/+70 °C;   |   |  |
|  | CE markings   | ATEX (Directive 2014/34/EU)<br>Electromagnetic Compatibility<br>(Directive 2014/30/EU)<br>Low Voltage (Directive 2014/35/EU)          |   |  |
|  |   |   |   |  |

## Ordering Information

### Dräger Polytron® 5310 IR

|   |                     |
|---|---------------------|
| Dräger Polytron® 5310 IR d A  | 83 44 370           |
| Dräger Polytron® 5310 IR d A Relay  | 83 44 371           |
| Dräger Polytron® 8xx Custom Configuration Kit e.g. St. Steel & Relays – visit <a href="http://www.draeger.com/polytron">www.draeger.com/polytron</a> to configure yours | 83 44 500           |
| <b>Accessories</b>  | <b>Order Number</b> |
| Magnetic wand   | 45 44 101           |

## Ordering Information

|  |           |
|--|-----------|
| 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 adapter                                    | 68 11 330 |
| Weather protection kit Dräger Polytron® 5/6/8xxx   | 37 02 198 |
| Weather guard                                      | 68 11 135 |
| Aluminum junction box for remote sensor 'd'        | 45 44 099 |
| Stainless steel junction box for remote sensor 'd' | 45 44 098 |

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