

Dräger Polytron® 6100 EC WL Wireless transmitter for toxic gases

The Dräger Polytron 6100 EC WL is a wireless transmitter for continuous monitoring of toxic gases and oxygen. The intrinsically safe, SIL2-rated transmitter features completely wireless signal transmission and a power supply. The internal battery pack continuously powers the transmitter for up to 24 months. This makes the Polytron 6100 a flexible and cost efficient solution for plant expansions, upgrades, and new installations.



Benefits

No cable? No problem!

Is the financial, technical or timing effort of wiring a transmitter not feasible? Then the Dräger Polytron 6100 EC WL is the ideal complement to your fixed gas detection system. It's ideal for situations where cabling would be uneconomical or impractical, where the measuring point needs to be moved frequently, or where it's far from the existing infrastructure. Wireless detection reduces your installation effort, while retaining the same safety levels provided by a wired transmitter. The Polytron 6100 EC WL is designed to meet SIL2 requirements for measurement technology.

Measures and transmits data wirelessly

The industrial wireless standard ISA100.11a ensures safe transmission of measurements. Together with the PROFIsafe protocol, the Polytron 6100 EC WL guarantees the SIL2 capability of your system. It uses DrägerSensors®, which are proven and optimized for industrial applications and can detect 140 different hazardous gases.

Easy to install, easy to use

The PolySoft software solution allows you to conveniently access the Polytron 6100 EC WL via a Bluetooth® interface on an explosion-protected tablet, laptop or desktop PC. The transmitter's data and event log can be easily recorded and assessed for monitoring and audit purposes. You can use the Dräger Polytron 8100 EC accessories with the device – from pipe mounting sets to weather protection. As a result, there are countless mounting and application possibilities. The integrated LEDs, which are visible from a great distance, indicate the battery life, disturbance, alarm and Bluetooth® interface – so you can determine the status of the device at any time.

Cost-effective in maintenance

The intrinsically safe design of the wireless gas detection transmitter lets you perform maintenance, such as changing the batteries or sensors, in the hazardous area. You do not need to take any additional measures, such as declassifying the area – therefore saving time and allowing all maintenance work to be completed safely. The pre-calibrated DrägerSensors ensure quick commissioning and can detect a broad range of measurable gases and vapors.

External power supply

With the Polytron 6100 EC WL, you can also cover application scenarios in long-term operation without batteries. The 24-volt wireless transmitter is provided to do just this – directly in the safe area and in using a suitable supply isolator the hazardous area, while still transmitting the measurement signal to the control unit wirelessly.

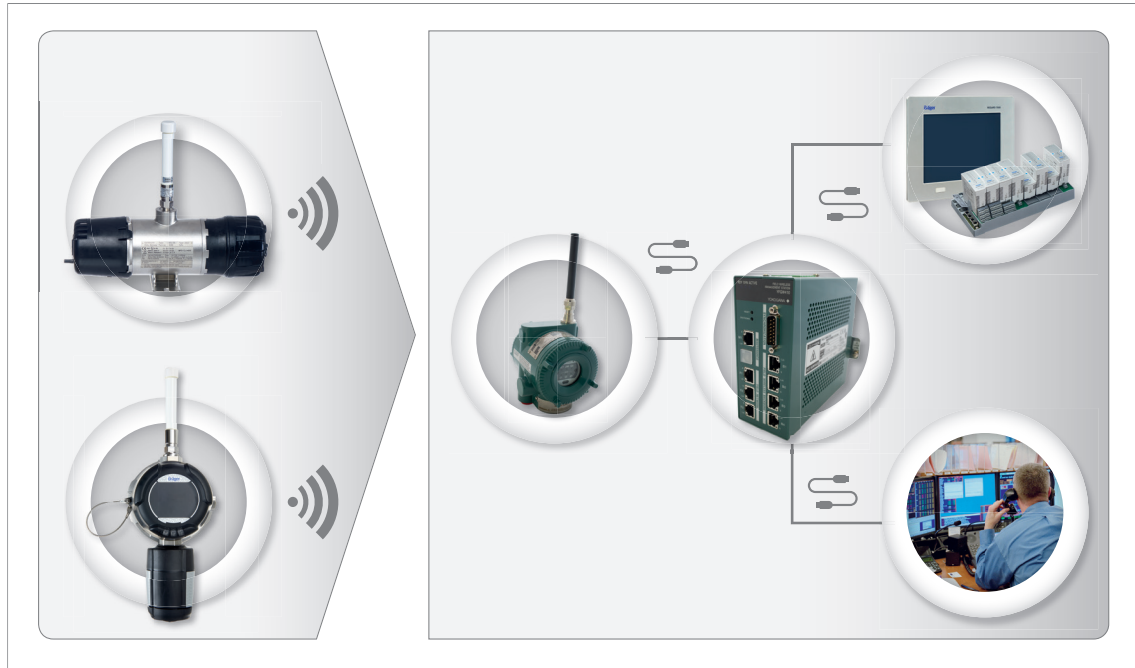
Benefits

Greater distances and alternative paths of communication

With the Polytron 6100 EC WL transmitter, you can transmit data for distances up to 1640 ft. The transmitter's repeater function enables the transmission of radio signals, creating a bridge over greater distances with additional wireless transmitters or enable alternative paths of communication (redundancies). If you don't require any additional gas measuring points in your application, you can use the Polytron Repeater ISA. The operation and installation of this device are identical to the Polytron 6100 EC WL.

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Sample Dräger wireless gas detection system



The wireless transmitters send their detection signal to the access point. From there, the signal is transferred to the gateway, which feeds the control unit directly via Modbus or using the PROFINET® protocol.

System Components



D-11979-2017

Yokogawa Access Point

The Yokogawa Access Point, which is manufactured by the Yokogawa company, is the receiving point for the ISA100.11a network.

System Components



D-11978-2017

Yokogawa Gateway

The Yokogawa gateway, which is manufactured by the Yokogawa company, manages the wireless ISA100.11a network.



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®.

Accessories



D-8929-2019

Antenna for remote applications

The external antenna allows the Dräger Polytron® 6100 EC WL to be in areas where radio transmission is restricted, e.g. inside buildings or metal structures.

Accessories



Battery pack

The battery pack is required for network-independent battery operation.



Battery box

The battery box enables safe transport and replacement of the battery pack in hazardous areas.



Dräger Polytron® Repeater ISA100

With the Dräger Polytron® Repeater ISA100, you can expand your network with alternative communication paths if required or use it as an amplifier to enable longer distances. Network-independent battery operation for more than 5 years or unlimited network operation are possible.

Related Products

D-21374-2020



GS01 (wireless)

The GS01 is a wireless infrared gas transmitter for continuous monitoring of flammable hydrocarbon gases and vapours in the oil and gas industry. The intrinsically safe and SIL-rated transmitter features completely wireless signal transmission and power supply. This makes the GS01 a flexible and cost efficient solution for plant expansions, upgrades, and new greenfield projects.

D-52604-2012



Dräger Polytron® 8100 EC

The Polytron® 8100 EC is Dräger's top of the line explosion-proof transmitter for the detection of toxic gases or oxygen. It uses a high performance plug and play electrochemical DrägerSensor to detect a specific gas. Besides having a 3-wire 4 to 20 mA analog output with relays, it also offers HART®, Modbus and Fieldbus protocol, making it compatible with most control systems.

ST-3812-2003



Dräger Polytron® 7000

The Dräger Polytron® 7000 gas detector can satisfy many toxic and oxygen gas measurement applications on a single platform. It meets compliance requirements as well as the high specification requirements of customized solutions.

Technical Data

Dräger Polytron® 6100 EC WL

Housing	Gases and measuring range	Toxic gases and Oxygen, see sensor data sheet. All DrägerSensors are supported.
	Housing material	Stainless steel 316
	Protection class	IP66/67
	Dimensions	320 x 150 x 170 mm (with 2dBi aerial)
	Weight transmitter	Ca. 3.2 kg (7.0 lb)
	Weight battery pack	Ca. 0.5 kg (1.1 lb)
	Cable gland	M25 x 1.5
Electrical data	Battery type	Lithium thionyl chloride (Battery pack with 4 D cells)
	Battery life time	Depending on operating conditions; max. 24 months
	Wired power supply	2-wire shielded cable, 24-12 AWG / 0,2 – 2,5 mm ²
	Operating voltage	14 to 30 V
Environmental conditions	Temperature	-40 to +65 °C (-40 to +149 °F)
	Pressure	700 to 1,300 hPa (20.7 to 38.4 in Hg)
	Humidity	0 to 100 % r.h., non-condensing
Communication	Bluetooth® (for operation and service purposes)	Range 50 ft.
	Measured value transmission (process interface), protocol	ISA100 Wireless™
	Type	IEEE802.15.4 in 2.4 GHz-ISM-Band
	Range	1640 ft. in free area
Approvals	ATEX / IECEx	I M1 / II 1GD Ex ia I Ma, Ex ia IIC T4 Ga, Ex ia IIIC T135°C Da, -40°C ≤ Ta ≤ +65°C
	CE-Directive	ATEX directive 2014/34/EU RED directive 2014/53/EU RoHS directive 2011/65/EU
	Safety Integrity Level	SIL2*

PROFINET® is a registered trademark of PROFIBUS and PROFINET International (PI).

The ISA100 Wireless™ is a registered trademark of ISA100 Wireless Compliance Institute.

Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

* – as of October 2020

Ordering Information

Dräger Polytron® 6100 EC WL	83 27 000
Dräger Polytron® Repeater ISA100	83 27 001
Dräger Polytron® 6100 Battery Box	37 02 223
Dräger Polytron® 6100 Battery Pack, 1 pc	37 02 176
Dräger Polytron® 6100 Battery Pack, 6 pc	37 02 177
Weather protection kit Dräger Polytron® 5/6/8xxx	37 02 198
Dräger Polytron® 6100 Premium Antenna, 2dBi	83 27 813
Dräger Polytron® 6100 Standard Antenna, 2dBi	37 02 169
Dräger Polytron® 6100 Remote Antenna, 6 dBi	37 02 171
Antenna cable, 5 m	AL 20 719

Ordering Information

Antenna cable, 10 m	AL 20 720
Antenna cable, 20 m	AL 20 721
Pole Mount Kit	45 44 198
Calibration adapter V	68 10 536
Magnetic Wand	45 44 101
Dräger Polysoft Basic license for 1PC.-Valid for 1 year	83 28 600
Dräger Polysoft Basic license for 1PC.-Annual subscription	83 28 601
Dräger Polysoft Premium license for 1PC.-Valid for 1 year	83 28 639
Dräger Polysoft Premium license for 1PC.-Annual subscription	83 28 640

Notes

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