

## 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 and SIL2-rated transmitter features completely wireless signal transmission and power supply. The internal battery pack allows the transmitter to operate continually for up to 24 months. This makes the Polytron 6100 a flexible and cost efficient solution for plant expansions, upgrades, and new installations.



## Benefits

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### Don't want wiring? No problem!

Is the financial, technical or temporal effort of wiring a transmitter too high? Then the Dräger Polytron 6100 EC WL is the ideal complement to your fixed gas detection system. The challenging measuring tasks in the loading or revision areas really play to the advantages of the wireless gas detection transmitter. The Polytron 6100 EC WL is also well applied in the plant areas, which require mobile solutions, are difficult to reach or do not provide any infrastructure. Wireless detection reduces your planning effort required whilst retaining the same safety levels provided by a wired transmitter. The Polytron 6100 EC WL is SIL2-capable and suitably approved for measurement technology.

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### Measure and transmit data wirelessly – safe and reliable as usual

The industrial wireless standard ISA100.11a ensures safe transmission of measurements. Alongside the PROFIsafe protocol, it guarantees the SIL2 capability of your system. In the Polytron 6100 EC WL are the DrägerSensors, which are proven and optimised for industrial applications, covering 140 different hazardous gases.

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### Convenient during installation and in operation

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

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### Cost-effective in maintenance

The intrinsically safe design of the wireless gas detection transmitter enables any maintenance, such as changing the batteries or sensors, in the explosion 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 provide a broad range of measurable gases and vapours.

## Benefits

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### External power supply

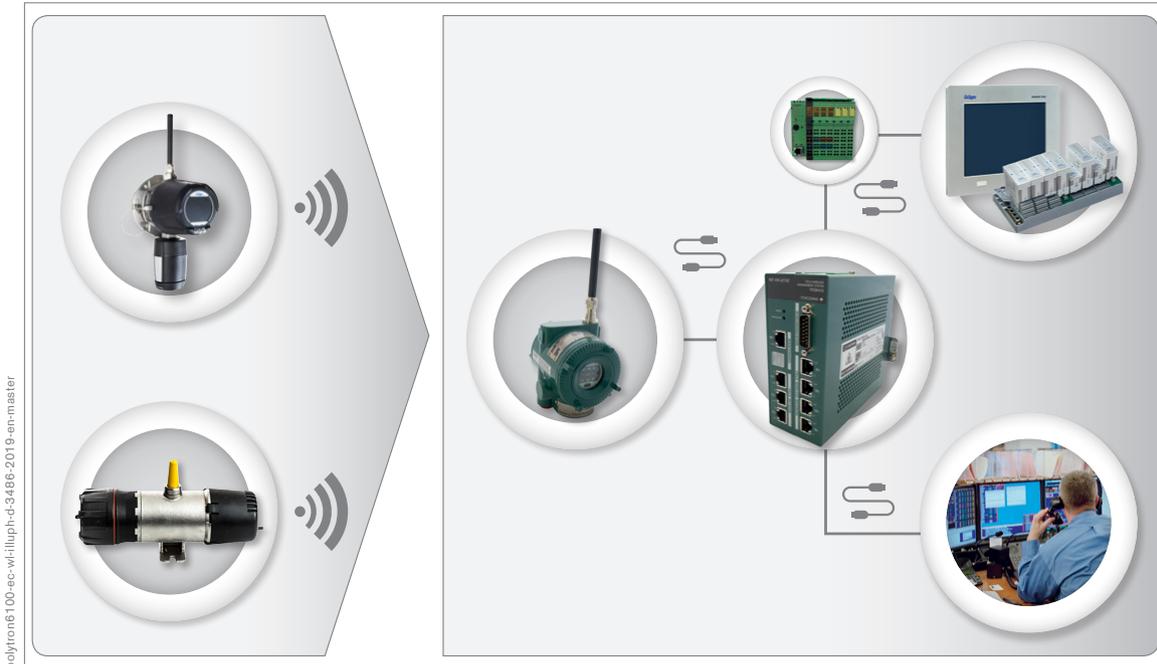
With the Polytron 6100 EC WL, you can also cover application scenarios in long-term operation without batteries. The wireless transmitter with 24 volts is provided to do just this – directly in the safe area and in the explosion area via a suitable supply isolator, whilst still utilising the wireless transmission of measurement signal to the control unit.

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### Greater distances and alternative paths of communication

With the Polytron 6100 EC WL transmitter you can achieve distances of up to 500 metres. 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). Should you not require any additional gas measuring points in application, the Polytron Repeater ISA comes into play. Operation and installation are identical to the Polytron 6100 EC WL.

## Presentation of a Dräger wireless gas detection system



Dräger Polytron® 6100 EC WL wirelessly transmits a measuring signal to the access point. Then it is relayed to the gateway. This feeds the CU directly via Modbus/PROFINET® log. Use a D/A converter for analogue analysis units.

## System Components



### Yokogawa Access Point

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

## System Components

D-11978-2017



### Yokogawa Gateway

The Yokogawa gateway manages the wireless ISA100.11a network.

This product is manufactured by the company of Yokogawa.

D-11880-2017



### Phoenix Contact 4–20 mA Converter

The Phoenix Contact 4–20 mA Converter is a digital-analogue converter for connection to analysis units with conventional 4–20 mA inputs.

This product is manufactured by the Phoenix Contact company.

D-6806-2016



### Dräger REGARD® 7000

The Dräger REGARD® 7000 is a modular and therefore highly expandable analysis 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®.

## Accessories



D-8925-2019

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### Antenna for remote applications

With its external antenna, the Dräger Polytron 6100 EC WL can also be used with restrictions in the radio path, such as in a Faraday cage.



D-7575-2019

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### Battery pack

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



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### Battery box

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



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### Dräger Polytron® Repeater ISA100

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

## Services



D-2331-2016

### Product Service

Our product service provides support with different service packages – in our workshops or directly on your premises. Care, maintenance and servicing are crucial for safety and reliability – but careful maintenance and care are a must, even when it comes to commercial considerations. Preventive checks, ongoing care and use of original replacement parts improve the longevity of your investment.



D-2336-2016

### Training

The Dräger Academy has shared its solid, practical knowledge for over 40 years. We hold more than 2,400 training courses each year, on a range of over 600 topics, with more than 110 authorised trainers. We equip your staff with practical knowledge and ensure that what they learn can be applied effectively, both day-to-day and, more importantly, whenever critical situations occur. We will be pleased to develop a customised training programme for you.

## Related Products



D-42775-2015

### 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.

## Related Products

D-52604-2012



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### 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 analogue output with relays, it also offers Modbus and Fieldbus protocol making it compatible with most control systems.

D-158-2016



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### Dräger Polytron® 5100 EC

The Dräger Polytron® 5100 EC is a cost-effective 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. A 2 or 3-wire with 4 to 20 mA output with relays make it compatible with most control systems.

## 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 <sup>2</sup>
	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 15 m
	Measured value transmission (process interface), protocol	ISA100 Wireless™
	Type	IEEE802.15.4 in 2.4 GHz-ISM-Band
	Range	500 m 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 (pending)

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

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

## Ordering Information

Dräger Polytron® 6100 EC WL	83 27 000
Dräger Polytron® Repeater ISA100	83 27 001
Dräger Polytron® 6100 Battery Box	83 27 839
Dräger Polytron® 6100 Battery Pack, 1 pc	37 02 176
Dräger Polytron® 6100 Battery Pack, 6 pc	37 02 177
Dräger Polytron® 6100 Weather Protection	37 02 181
Tablet EX80	37 03 254
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, 5m	AL 20 719
Antenna cable, 10m	AL 20 720
Antenna cable, 20m	AL 20 721
Pole Mount Kit	45 44 198
Calibration adapter V	68 10 536
Dräger PolySoft	83 23 405
Magnetic Wand	45 44 101

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