



Dräger PointGard 3100

Detection of toxic gases and oxygen

The Dräger PointGard 3100 is a complete 1-channel gas detection system for detecting toxic gases or oxygen in ambient air. The robust yet compact IP66 housing already contains all necessary alarm equipment.

Benefits

All-in-one

The PointGard 3100 is the optimal solution for all those who need a gas detection system but who do not want to go through the hassle of assembling all the necessary components. It contains the detection function of a transmitter, the supervisory function of a controller and the necessary alarm equipment such as flashing lights and horn. The AC versions of the PointGard 3100 can be operated with the optional power cable at any standard power socket. If the measuring location is not suitable for mounting the PointGard, you can remove the integrated sensor and place it up to 30 m away using the appropriate remote accessories. Appropriate accessories are also available for use in ducts and ventilation shafts.

Application

The PointGard 3100 is used where a gas concentration needs to be monitored locally. A typical application is the measurement of hazardous gases in unventilated or closed rooms. For this, the PointGard 3100 is installed outside the room at the entrance and the sensor in the room where the substance is monitored. This way you are informed about the gas concentration before entering the room. If the alarm limits are exceeded, the PointGard warns with the integrated alarm devices. It can also trigger automatic ventilation so that the concentration is lowered and the room can be entered again without danger. In case of oxygen monitoring, ventilation would continue until a sufficiently high concentration is present again.

Sensor Technology

Inside the PointGard 3100, the proven electronics of the Dräger Polytron 8100 are used. Both hardware and software have been evaluated by TÜV (Nord) and have proven SIL2 capability. The electrochemical DrägerSensor is used for the measurement. It is characterized by long service life and long-term stability. With the various sensors that can be used in the PointGard 3100, more than 100 toxic gases can be measured. The DrägerSensors allow continuous measurement even under the most difficult conditions. Most DrägerSensors support a wide temperature range from -40 °C to +65 °C.

Integrated Alarms

The PointGard 3100 already includes visual and audible alarms. The bright and long-lasting flashing lights warn of danger from a distance in orange (pre-alarm) and red (main alarm). If a distinction is made between safe and unsafe conditions, there are combinations in green (safe) and red (unsafe) or green (safe) and blue (unsafe). The integrated horn has a sound pressure of 85-100 dB. The horn volume can be adjusted to suit either industrial or laboratory applications. The side mounted horn silence button can be set to reactivate the horn in 3 minutes, 6 minutes, or permanent off until the next gas alarm.

Power Supply

The PointGard 3100 contains a 120 ... 230 VAC/ 24 VDC power supply. It can optionally be ordered with a power cable and country-specific plug. If a local 24 VDC supply is already available, a variant without power supply unit is also available.

User Interface

The measured value, gas name and measuring unit are permanently shown on the display. If required, the concentration history of the last 15 minutes can also be shown. The display has a backlight in red or green to ensure readability even in poor lighting conditions. The colors can be set via a slide switch inside the device. Below

Benefits

the display are three status LEDs in green (operational), yellow (error) and red (alarm). All settings on the PointGard 3100 are made via a password-protected menu. The three-button control allows quick navigation through the menu items. Measuring range and alarm thresholds are already set to the usual values after plugging the sensor. They can be adjusted at any time.

Interfaces

In addition to the integrated alarm means, the PointGard 3100 also has dry contact switching relays. This enables additional automated switching measures. Relays are available for A1, A2 and faults. In addition, an external digital input, such as a fault contact of neighboring machines, can be read in and switch off the green light (safe status) on the PointGard 3100. For integration into higher-level systems (visualization systems, data acquisition systems, PLCs, central gas warning systems), the analog 4-20 mA current interface according to NE 43 can be used. HART® communication allows you to synchronize settings with a connected Dräger REGARD 3000 or Dräger REGARD 7000. In addition, remote access is possible via HART® using Dräger PolySoft software or other HART® communication devices.

Accessories



Remote Sensor EC

With the EC Sensing Head Remote, the sensor can be installed up to 30 metres away from the Polytron in a separate compact housing.

D-01.88-2020

Accessories

Splash Guard

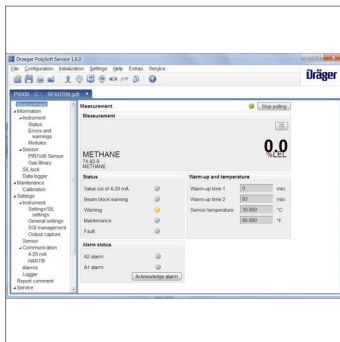
The Splash guard protects the sensor against water splashes and dirt.



D-85368-2013

Dräger Polysoft software

The optional Dräger Polysoft Windows® software is used for configuration, firmware upgrades, diagnostics and downloading the Polytron's built in datalogger – all from the comfort of your control room – using the digital HART® signal that rides on top of the analog 4 to 20 mA signal. Out in the field, an available non-intrusive IR dongle easily connects Polytron® to Polysoft.



D-4316-2019

Related Products

Dräger Polytron 3200

The Dräger PointGard 3200 is a complete 1-channel gas detection system for detecting combustible gases or vapors in ambient air. In the robust yet compact IP66 housing already contains all the necessary alarm equipment.



D-6572-2023

Related Products

D-4573-2023



Dräger PointGard 3700

The Dräger PointGard 3700 is a complete 1-channel gas detection system for detecting combustible gases or vapors in ambient air. In the robust yet compact IP66 housing already contains all the necessary alarm equipment.

D-11833-2023



Dräger PointGard 3720

The Dräger PointGard 3720 is a complete 1-channel gas detection system for detecting carbon dioxide in ambient air. The robust yet compact IP66 housing already contains all the necessary alarm equipment.

D-39957-2021



Dräger REGARD 3000 Controller

Monitor various gases and vapors with the modular Dräger REGARD 3000 control system. Its multi-colored light signals the status of your gas detection system. The controller allows for up to three I/O modules: Analog Input, Relay Output, and Modbus Gateway. You can monitor up to 4 analog transmitters and control up to 8 relays.

Technical Data

Dräger PointGard 3100 EC

Type	Self-contained gas monitor with alarm devices for monitoring toxic gases and oxygen in the ambient air
Measuring ranges	See the list of electrochemical DrägerSensor® on the next page

Electrical data

Signal output analog	Normal operation	4-20 mA with HART
	Maintenance	Constant 3.4 mA or 4 mA $\pm$ 1 mA 1 Hz modulation (adjustable)
	Fault	<1.2 mA
Power supply AC version	Operating voltage	100-240 VAC, 50/60 Hz
	Nominal power	6 W
	Operating current (max)	0.5 A
	Inrush current	Max. 40 A @ 230 VAC 50 Hz
Power supply DC version	Operating voltage	10-30 VDC
	Nominal power	6 W
	Operating current (max)	2.5 A
Electrical certification	CE rating, IEC/EN 61010-1	
	Complies with UL 61010-1	
	Class B device, residential use compliant with ICES-3(B)/ NMB-3(B)	
Relay specification	2 alarm relays and 1 fault relay	
	SPDT contact 5 A @ 230 VAC, 5 A at 30 VDC, resistance bound	
	Alarm reset through front-mounted push button	
Alarm device	Variants with amber and red LED strobes activate these on 2 alarm levels independently	
	Variants with green steady light activate red strobe on both alarm levels. Green steady light turns off during alarm or fault condition; optional blue LED strobe	
	85-105 dB adjustable-volume buzzer with continuous and pulsating tone. Side mounted horn silence button with adjustable resound time.	

Display and controls

LCD Display	75 mm/3" backlit graphic LC display
	Selectable red or green illumination, alphanumeric
Indicators	3 status LEDs (green/yellow/red)
Operation	Through three front mounted push buttons
Security	Separate passwords for maintenance and configuration menu

Technical Data

Functions	Event and data logger with a capacity of up to 35,000 records
	Warning and error messages displayed in plain text
	Passwordless bump-test mode inhibits alarms
	Automatic calibration mode for zero and span

Housing

Material	Glass fiber reinforced polyester (GFRP)
Mounting	Wall mount with internal screws or optional SS mounting brackets
Housing protection type	IP66; indoor or outdoor use
Housing certification	UL 508A/50/50E; CSA C22.2 94.1/94.2/14-13
Cable entry point	3 cable glands 1/2" NPT
Size (L x W x D)	255 x 280 x 120 mm/10 x 11 x 4.7"
Weight	3.9 kg/8.6 lb

Environmental conditions

Temperature (storage)	-20 to +65 °C/-4 to +149 °F
Temperature (operation)	-20 to +50 °C/-4 to +122 °F
Pressure	20.7 to 38.4" Hg/700 to 1,300 hPa
Humidity	0 to 95% r. h., noncondensing

Ordering Information

Dräger PointGard 3100 EC (Order EC-Sensor separatly)

Dräger PointGard 3100 EC AC	3728176
Dräger PointGard 3100 EC AC with green steady light	3728175
Dräger PointGard 3100 EC DC	3728174
Dräger PointGard 3100 EC DC with green steady light	3730935

Dräger PointGard 3100 EC accessories

EC Sensing Head Remote Enclosure w/ mount (requires cable)	6812684
Remote Cable + Plug (5 m/16')	8323305
Remote Cable + Plug (15 m/49')	8323315
Remote Cable + Plug (30 m/100')	8323330
Sensor Diagnostics Dongle (includes Sensor Test Dongle)	8317860
Sensor Test Dongle	8317619

Electrochemical DrägerSensors

DrägerSensor® AC Acidic Compounds	6810595
DrägerSensor® Cl ₂ Chlorine 0-50 ppm	6809665
DrägerSensor® CO 0-1000 ppm	6809605
DrägerSensor® CO LS Carbon Monoxide 0-5000 ppm	6809620
DrägerSensor® CO LH Carbon Monoxide 0-300 ppm	6812570
DrägerSensor® COCl ₂ Phosgene 0-20 ppm	6809930
DrägerSensor® H ₂ 0-3000 ppm	6809685
DrägerSensor® H ₂ O ₂ HC Hydrogen Peroxide 0-7000 ppm	6809675
DrägerSensor® H ₂ O ₂ LC Hydrogen Peroxide 0-300 ppm	6809705
DrägerSensor® H ₂ S Hydrogen Sulfide 0-100 ppm	6810435
DrägerSensor® H ₂ S HC Hydrogen Sulfide 0-1000 ppm	6809710
DrägerSensor® H ₂ S LC Hydrogen Sulfide 0-100 ppm	6809610
DrägerSensor® HCl Hydrogen Chloride 0-100 ppm	6809640
DrägerSensor® HCN LC Hydrogen Cyanide 0-50 ppm	6813200
DrägerSensor® PH ₃ /AsH ₃ Phosphine/Arsine 0-10 ppm	6809695
DrägerSensor® Hydride 0-20 ppm	6809635
DrägerSensor® Hydride SC 0-0.5 ppm	6809980
DrägerSensor® N ₂ H ₄ Hydrazine	6810180
DrägerSensor® NH ₃ HC Ammonia 0-1000 ppm*	6809645
DrägerSensor® NH ₃ TH Ammonia 0-10000 ppm	6800055
DrägerSensor® NH ₃ TL Ammonia 0-300 ppm	6813095
DrägerSensor® NH ₃ FL Ammonia 0-300 ppm	6813260

Ordering Information

DrägerSensor® NO LC Nitric Oxide 0-200 ppm	6809625
DrägerSensor® NO ₂ Nitrogen Dioxide 0-100 ppm	6809655
DrägerSensor® NO ₂ LC Nitrogen Dioxide 0-20 ppm	6813205
DrägerSensor® O ₂ LS Oxygen 0-25% Vol	6809630
DrägerSensor® O ₃ Ozone 0-5 ppm	6810290
DrägerSensor® OV1 Organic Vapors 0-200 ppm	6810740
DrägerSensor® OV2 Organic Vapors 0-100 ppm	6810745
DrägerSensor® SO ₂ Sulfur Dioxide 0-10 ppm	6809660

Dräger PointGard 3000 Series common accessories

Mounting Bracket Set (not included in Dräger PointGard)	8326497
Sunshield weather protection for PointGard 3000	NA10458
Splash Guard	6812510
Calibration Adapter Viton®	6810536
IR Connection Kit for PC configuration and upgrades	8317409
LED steady light, green	8326489
LED strobe light, blue	8326472
AC Power Cable Brazil	8326448
AC Power Cable Europe	8326449
AC Power Cable UK	8326450
AC Power Cable USA	8326451
AC Power Cable Australia	8326452

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Notes

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Notes

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