Dräger PointGard 3100
Detection of toxic gases and oxygen

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The Dräger PointGard 3100 is a complete 1-channel gas detection system for measuring toxic gases or oxygen in ambient air. In its robust yet compact housing with IP66 protection class, you have all the necessary alarm equipment needed.

Dräger

Technology for Life

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 measuring function of a transmitter, the assessment 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 an optional power plug 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 corresponding remote accessories. In addition, appropriate accessories are also available for use in pipes and ventilation shafts.

The Application

Use the PointGard 3700 where gas concentrations need 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 you with its 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.

The Measurement Technology

Inside the PointGard 3100, you will find the proven electronics of our Dräger Polytron 8100. Our electrochemical DrägerSensors are used for the measurement. They are characterised by a 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.

The Integrated Alarm Equipment

The PointGard 3100 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. It was selected for industrial use in noisy environments. You can reduce the volume for less noisy environments, for example in the laboratory.

The Power Supply

The PointGard 3100 contains a 120 ... 230 VAC/ 24 VDC power supply. You can also order it with a power cable and country-specific plug as an option. If a local 24 VDC supply is already available, a variant without power supply unit is also available.

The Operability

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 colours can be set via a slide switch inside the device. Below 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

Benefits

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.

The Interfaces

In addition to the integrated alarm means, the PointGard 3100 also has potential-free changeover relays. This enables additional automated switching measures. Relays are available for A1, A2 and faults. Moreover, an external switching contact, for example a fault contact of neighbouring machines, can be read in and thus the green light (safe status) on the PointGard 3100 can be switched off. For integration into higher-level systems (visualisation 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 synchronise settings with a connected Dräger REGARD 3000 or Dräger REGARD 7000. Furthermore, remote access is possible via HART® using Dräger PolySoft software or other HART® HHT.

Related Products

D-6572-2023

Dräger PointGard 3200

The Dräger PointGard 3200 is a complete 1-channel gas detection system for measuring combustible gases or vapours in ambient air. In its robust yet compact housing with IP66 protection class, you have all the necessary alarm equipment needed.

D-6573-2023

Dräger PointGard 3700

The Dräger PointGard 3700 is a complete 1-channel gas detection system for measuring combustible gases or vapours in ambient air. In its robust yet compact housing with IP66 protection class, you have all the necessary alarm equipment needed.

Related Products

Dräger PointGard 3720

The Dräger PointGard 3720 is a complete 1-channel gas detection system for measuring carbon dioxide in ambient air. In its robust yet compact housing with IP66 protection class, you have all the necessary alarm equipment needed.

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	Depending on the electrochemical DrägerSensor®

Electrical data

Signal output analog	Normal operation	4-20 mA
	Maintenance	Constant 3.4 mA or 4 mA ±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	

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	37 28 176
Dräger PointGard 3100 EC AC with green steady light	37 28 175
Dräger PointGard 3100 EC DC	37 28 174
Dräger PointGard 3100 EC DC with green steady light	37 30 935

Dräger PointGard 3100 EC accessories

EC Sensing Head Remote Enclosure w/ mount (requires cable)	68 12 684
Remote Cable + Plug (5 m/16')	83 23 305
Remote Cable + Plug (15 m/49')	83 23 315
Remote Cable + Plug (30 m/100')	83 23 330
Remote Cable + Plug (30 m/100')	83 17 860
Sensor Test Dongle	83 17 619

Electrochemical DrägerSensors

DrägerSensor® AC	68 10 595
DrägerSensor® Cl_2	68 09 665
DrägerSensor® $COCl_2$	68 09 930
DrägerSensor® CO	68 09 605
DrägerSensor® CO LS	68 09 620
DrägerSensor® CO LH	68 12 570
DrägerSensor® H_2	68 09 685
DrägerSensor® H_2O_2 HC	68 09 675
DrägerSensor® H_2O_2 LC	68 09 705
DrägerSensor® H_2S LC	68 09 610
DrägerSensor® H_2S HC	68 09 710
DrägerSensor® H_2S	68 10 435
DrägerSensor® HCl	68 09 640
DrägerSensor® HCN LC	68 13 200
DrägerSensor® Hydrides	68 09 635
DrägerSensor® Hydrides SC	68 09 980
DrägerSensor® PH_3/AsH_3	68 09 695
DrägerSensor® Hydrazine	68 10 180
DrägerSensor® NH_3 TH	68 00 055
DrägerSensor® NH_3 TL	68 13 095
DrägerSensor® NH_3 FL	68 13 260
DrägerSensor® NO	68 09 625

Ordering Information

DrägerSensor® NO LC	68 12 785
DrägerSensor® NO$_2$	68 09 655
DrägerSensor® NO$_2$ LC	68 13 205
DrägerSensor® O$_3$	68 14 005
DrägerSensor® O$_2$ LS	68 09 630
DrägerSensor® OV1	68 10 740
DrägerSensor® OV2	68 10 745
DrägerSensor® SO$_2$	68 09 660

Dräger PointGard 3000 Series common accessories

Mounting Bracket Set (not included in Dräger PointGard)	83 26 497
Splash Guard	68 12 510
Calibration Adapter Viton®	68 10 536
IR Connection Kit for PC configuration and upgrades	83 17 409
LED steady light, green	83 26 489
LED strobe light, blue	83 26 472
AC Power Cable Brazil	83 26 448
AC Power Cable Europe	83 26 449
AC Power Cable UK	83 26 450
AC Power Cable USA	83 26 451
AC Power Cable Australia	83 26 452
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