



Dräger PointGard 3700

Detection of flammable gases and vapours

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

Benefits

All-in-one

The PointGard 3700 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 3700 can be operated with the optional mains plug at any standard power outlet. To be able to position the PointGard 3700 and the sensor optimally, they have been separated from each other. This allows the PointGard 3700 with its alarm devices and display to be mounted at eye level, while the sensor can be placed as close as possible to the measurement location. The maximum cable length between PointGard 3700 and sensor is 30 m. The sensor is the Dräger PIR 7000, which may be installed in hazardous areas. Appropriate accessories are available for use in pipes and ventilation shafts.

The Application

The PointGard 3700 is used where a gas concentration needs to be monitored locally. A typical application is the measurement of flammable gases and vapours in unventilated or closed rooms. For this, the PointGard 3700 is installed outside the room at the entrance and the sensor in the room to be monitored. This way you are informed about the gas concentration before entering the room. If the set alarm limits are exceeded, the PointGard warns you 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.

The Measurement Technology

Inside the PointGard 3700, the proven electronics of the Dräger Polytron 8700 are used. The sensor is the Dräger PIR 7000, which has been tested for suitability for measurement and is SIL2-capable. This infrared transmitter with double-compensated 4-beam optics is characterised by excellent measurement quality and extreme long-term stability. It detects contamination of the optical system and warns in good time before the measurement fails so that the operator can remove the contamination. The use of gas-specific absorption curves allows the target substance to be switched without subsequent recalibration. Depending on local conditions, the calibration interval can be up to one year. With this sensor, the PointGard 3700 is able to measure a wide range of explosive hydrocarbon gases and vapours in a range of 0 - 100 % LEL (lower explosion limit). The Dräger PIR 7000 allow continuous measurement under atmospheric conditions in a temperature range from -40 °C to +77 °C.

The integrated Alarm Means

The PointGard 3700 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 to be 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 has been selected for industrial use in noisy environments. It can be reduced in volume for less noisy environments, for example in the laboratory.

Benefits

The Supply

The PointGard 3700 contains a 120 ... 230 VAC/ 24 VDC power supply. It can optionally be ordered with the power cable and country-specific plug. 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 are adjustable via a slide switch inside the device. Below the display are three status LEDs in green (ready), yellow (error) and red (alarm). All settings on the PointGard 3700 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 ex works. They can also be adjusted at any time.

The Interfaces

In addition to the integrated alarm means, the PointGard 3700 also has potential-free changeover relays. These allow additional automated switching measures. Relays are available for A1, A2 and faults. In addition, an external switching contact, for example a fault contact of neighboring machines, can be read in and thus the green light (safe status) on the PointGard 3700 can be switched off. 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® HHT.

Related Products



D-15316-2023

Dräger PointGard 3100

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

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 the robust yet compact housing with IP66 protection class 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 measuring carbon dioxide in ambient air. In the robust yet compact housing with IP66 protection class already contains all the necessary alarm equipment.

Technical Data

Dräger PointGard 3700 IR

Type	Self-contained gas monitor with alarm devices for monitoring flammable gases and vapours in the ambient air	
Measuring ranges	Ethylene	0 - 40 ... 100% LEL
	Methane, Propane	0 - 20 ... 100% LEL
	Methane	0 - 100 vol.- %
	Other substances and measuring ranges on request.	

Electrical data

Signal output analog	Normal operation	4-20 mA
	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	

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 3700 IR (Order Dräger PIR 7000 Sensor separatly)

Dräger PointGard 3700/3720 IR AC Remote	37 28 167
Dräger PointGard 3700/3720 IR DC Remote	37 28 165
Dräger PointGard 3700/3720 IR AC Remote with green steady light	37 28 166

Dräger PointGard 3700 IR compatible sensors

Dräger PIR 7000 Typ 334 (NPT) HART®, complete set (stainless steal)	68 13 035
Dräger PIR 7000 Typ 334 (M25) HART®, complete set (stainless steal)	68 11 817
Dräger PIR 7000 Typ 340(NPT) HART®, complete set (stainless steal)	68 13 045
Dräger PIR 7000 Typ 340(M25) HART®, complete set (stainless steal)	68 11 819
Dräger PIR 7000 Typ 334 (NPT) HART®, complete set (aluminum)	68 13 030
Dräger PIR 7000 Typ 340(NPT) HART®, complete set (aluminum)	68 13 040

The complete set includes the Ex d or e junction box, the splash guard, the status indicator and the mounting set, already pre-assembled.

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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