

Gas detector

PGE11

Part no. 5101559-5101563



G022426

System: CGD50/500

About the datasheet

This datasheet contains product information for the following PGE11 gas detectors:

Product name	Part no.
PGE11 Ext. CH4, 0-100%LEL, 16 cm	5101561-00
PGE11 Ext. C3H8, 0-100%LEL, 16 cm	5101562-00
PGE11 Ext. CH4, 0-100%LEL, 35 cm	5101563-00

General Description

Consilium PGE11 is an explosion-proof rugged optical point gas detector developed for detection of flammable gases and carbon dioxide in harsh environments. Built-in condition monitoring reduces unplanned stops and unnecessary downtime.

The PGE11 is available in three different lengths and is recommended for use in ventilation ducts, in front of fire dampers, and in double skin pipes.

Features and benefits:

- Fast gas detection - 2 seconds to response
- Built to handle tough vibrations and extreme temperatures
- Highly stable optical design
- Calibrated for life
- Maintenance prediction and early warning
- Easy to install and operate
- Gas-free function test

Data

Detection method	Solid-state IR, temperature compensated
Gases detected	Methane (CH ₄) Propane (C ₃ H ₈)
Accuracy	±3% of full scale in whole temperature range
Response time	T90 = 2 sec (with environment shield ¹) T90 = 1 sec (without environment shield)
Pressure coefficient	1% of reading per kPa ²
Operating voltage	18 - 50 V DC
Startup current	Soft boot-up to keep rush current < 1 A
Power consumption	< 3 W average
Cable terminals	Max 2.5 mm ²
Cable entry	Standard cable gland, polyamide, M20 Ex e, inner diameter 5,5–13 mm (M25, 1/2" NPT and 3/4" NPT on request)
Electrical connection	3 wires (0.5–2.5 mm ²), 4–20 mA signal
Operating temperature	-40 °C to +75 °C
Storage temperature	-60 °C to +75 °C
Pressure	70 to 130 kPa
Ambient humidity	0 to 100% RH
Ingress protection	IP66/IP67

1) Standard environment shield providing good protection against water splashes and dirt (included in delivery)

2) The detector is calibrated in atmospheric pressure. A change in pressure affects the measured value by 1% for each kPa that deviates from atmospheric pressure.

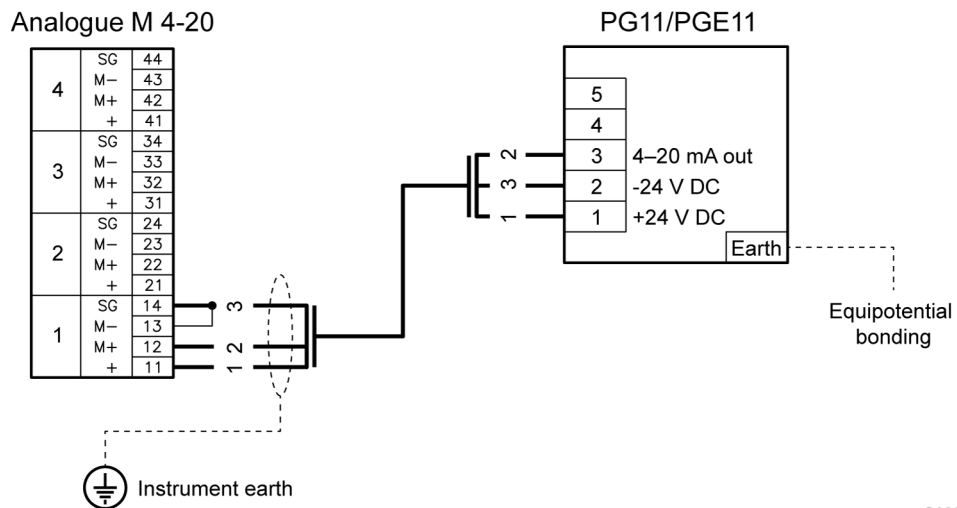
Material	Housing: Stainless steel 316L Back cover: Composite (standard); steel (optional)	Ex classification	ATEX / IECEx
Colour	Black/silver	ATEX approvals	II 2 G Ex db eb ib IIC T5 Gb Ex db ib IIC T5 Gb
Weight	3 kg ± 5%	ATEX Certificate No	Presafe 20 ATEX 67361 X
Dimensions (W × H)	120 × 102 mm	IECEx approvals	Ex db eb ib IIC T5 Gb, -55°C ≤ Tamb ≤ +75°C
Length with probe	16 cm: L=321 mm 35 cm: L=511 mm 60 cm: L=775 mm	IECEx Certificate No	IECEx PRE 20.0061X
Expected lifetime	15 years		

Accessories

Part name	Part no.
Cleaning kit	5101587-00

Connections

NOTE! For use in hazardous areas, see the PG11 / PGE11 Optical Gas Detection, Operating Manual (document number 022-80036-OM).

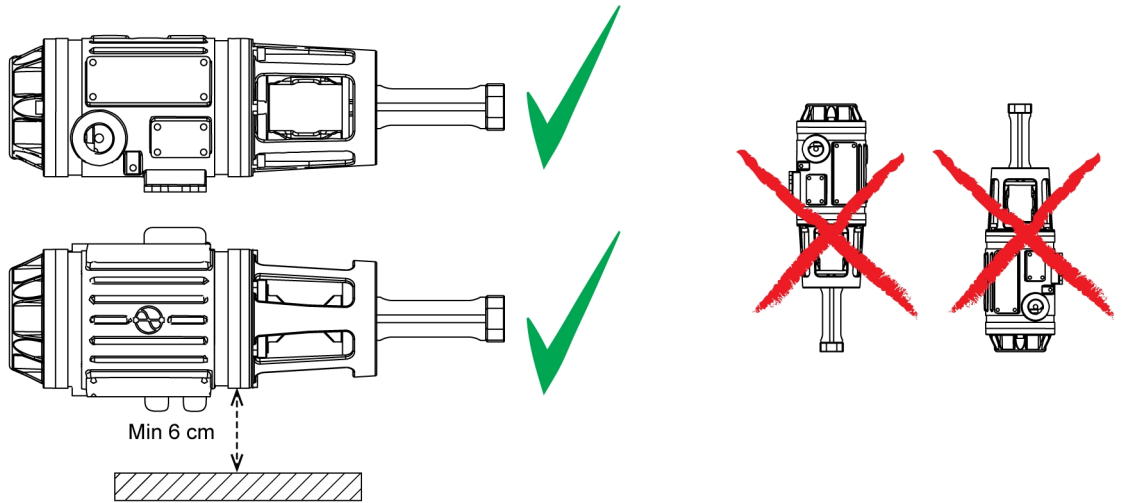


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Terminal	Signal type	Specification
1 (white)	Power, positive supply voltage	24 V DC
2 (brown)	Power, supply voltage return	0 V DC
3 (green)	Analogue safety signal	Analogue 0–20 mA DC signal overlaid with a HART signal
4 (yellow)	RS-485 A	Two wires for connection to digital RS-485 serial communication, Modbus RTU
5 (grey)	RS-485 B	
Earth (yellow/green)	Internal earth point	(See installation manual)

Mounting

CAUTION! Mount the detector in a horizontal position.



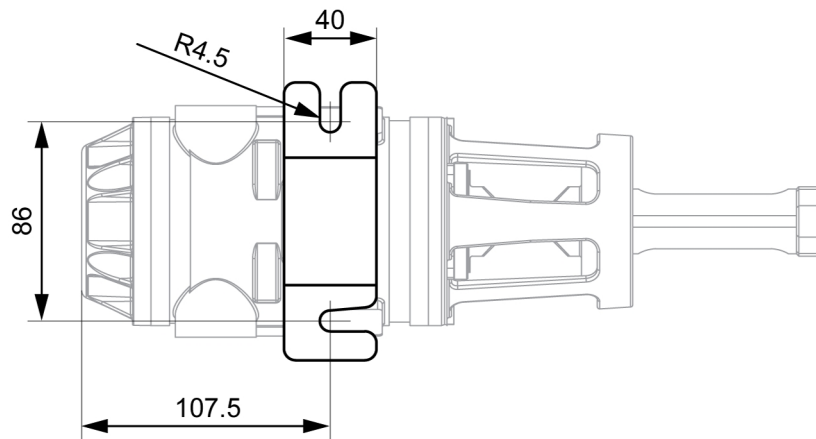
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NOTE!

Leave at least 6 cm free space around the sensor head to allow for connection of Gas test kit Gas Free.

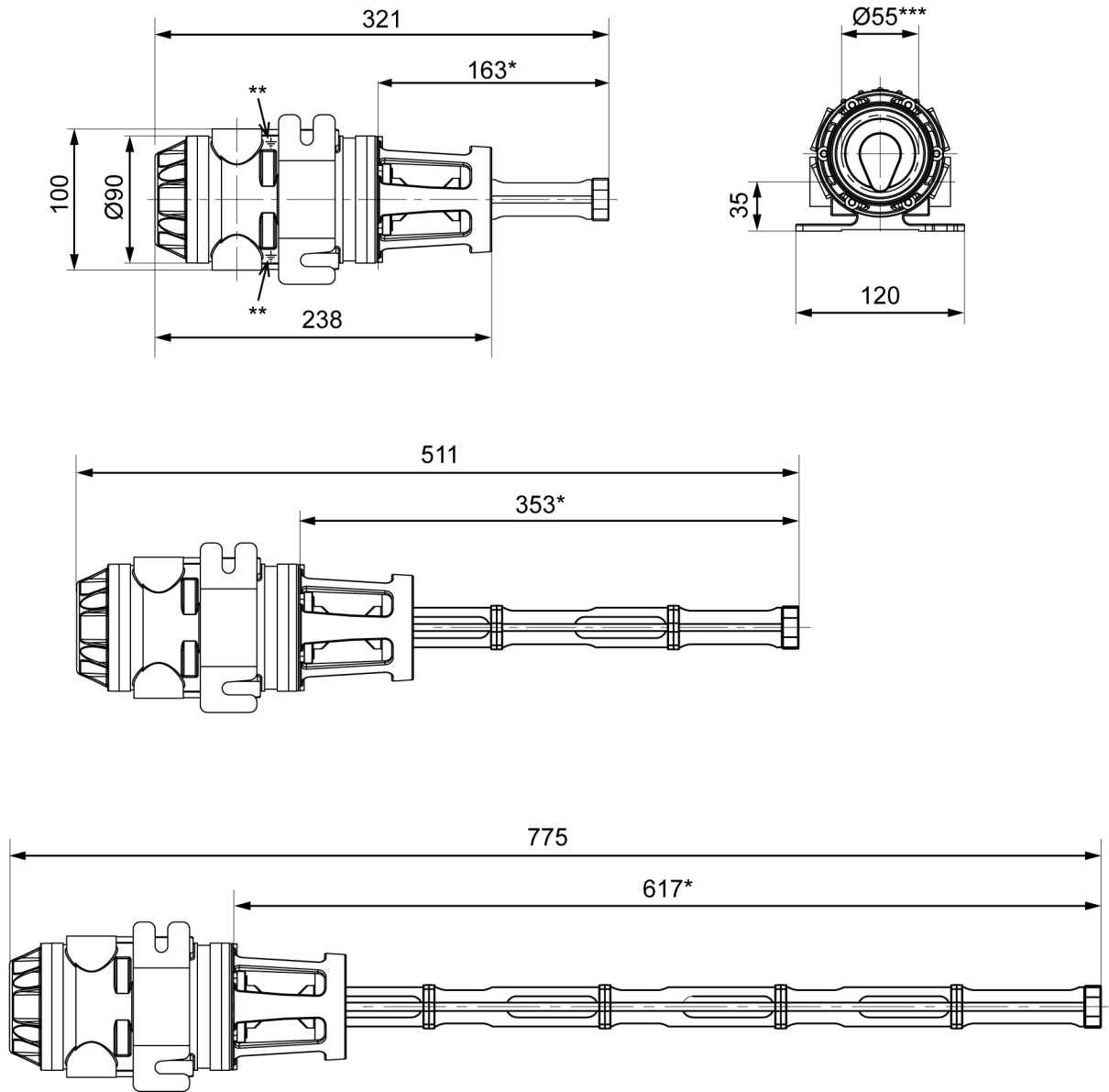
Hole pattern:



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For detailed information, see the PGE11 installation manual.

Dimensions (mm)



- *) From duct flange
- **) External earth connection point
- ***) Circumscribed circle

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