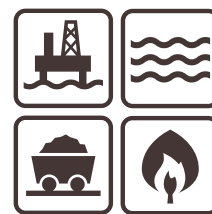


PG11 Optical Point Detector

Hydrocarbons and CO₂



The Optronics PG11 is an explosion proof, rugged Optical Gas Detector for the detection of flammable gases and CO₂. PG11 comes with a life-time factory calibration, is easy to install and commission and has very limited need for maintenance. The Solid State Infrared SafeSource™ ensures unmatched stability and lifetime and the built-in condition monitoring keeps maintenance and process interruptions at a minimum. Any need for attention is automatically informed to the operator.

A broad range of accessories ensure that the PG11 is ready to be used in most applications from duct mounts to extractive cabinet solutions. All accessories are easy to change should the need arise. Communication interfaces and fieldbuses are available using the OptoCom™ module.

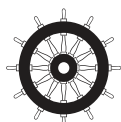
The PG11 is designed for use in SIL2/(SIL3*) systems and to withstand ambient conditions such as extreme temperatures and vibrations, all to ensure "Detection for real safety - for real life"

Features

- Solid State Infrared SafeSource™
- Life-time factory calibration
- Fast response time (T90 < 1.5 s)
- OptoBAS™ for increased signal baseline accuracy
- Designed for SIL2/(SIL3*)
- HART7 interface
- Heated sapphire optics
- Multicolor indicator
- Extended input voltage range

Benefits

- 6 year warranty
- 15 year warranty on SafeSource™
- Long maintenance intervals
- No field calibration
- OptoCom™ for DCS integration
- IIoT ready
- Visual Indicator for local alarms
- One detector - several applications



Specifications

Technology

Solid-state Infrared SafeSource™.
Temperature compensated for rugged applications

Gases and measuring ranges

Methane	0 - 100 %LEL, 0 - 100 %Vol
Propane, Ethylene, Butane	0 - 100 %LEL
Biogas[CH ₄ in CO ₂ background]	0 - 100 %Vol
CO ₂	0 - 10 %vol, 0-25%Vol

Calibration

Calibrated at factory, no need for field calibration.

Self-test

Continuous health check of all important HW and SW functions

Performance

Accuracy	± 3%FS for whole temperature range
Repeatability	± 1%FS
Response time	T90 = 1.5 sec

Signal output

Current source or sink 4 - 20 mA. Warnings/faults signalled below 4 mA.
OptoCom™ for application specific digital protocols.
HART® for maintenance and configuration.

Ambient conditions

Temperature	Storage:	-60 to +75°C / -76 to +167°F
	Operating:	-40 to +75°C / -40 to +167°F (Arctic) -60 to +75°C / -76 to +167°F
Humidity		0 - 100 %RH
Vibration		Resistant to shock and vibration up to 4G

Housing

Ingress Protection	IP66/IP67
Housing material	Stainless steel 316L
Weight & dimensions	Less than 3 kg & 250x120x120 mm ³

Electrical requirements and characteristics

Field wiring terminals	Stranded or solid wires rated up to 2.5 mm ² .
Cable gland entry options	Two M20 entries as standard. M25, ½"NPT and ¾"NPT on request.
Power requirements	18 - 50 VDC.
Power consumption	< 3.5W average (< 5 W average arctic) Soft boot with max 1A current spikes.

Approvals

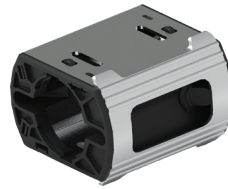
ATEX/IECEX	Ex db eb ib IIC T5 Gb
Marine	MED, BV, LR, DnV GL, ABS
Safety Integrity(IEC61508)	SIL2 (*SIL3 in 1oo2 redundancy)

Additional Accessories

Sun shade
Universal mount kit
Remote gas test kit

For more information contact your local supplier or check:
www.optronics-technology.com

Accessories



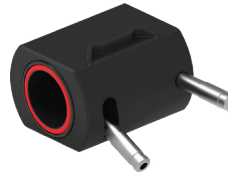
Environment Shield

Available as standard, with Mosquito net or Hydrophobic filter.



Gas Test kit

Gas test kit for field gas testing. Separate inlet and outlet so test gas can be vented to safe area if needed.



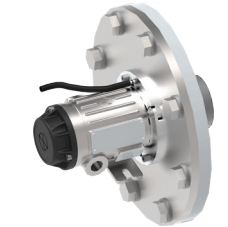
Gas Sampling kit

Snap-in gas sampling kit for extractive solutions. Simple mounting and dismounting for easy access to optical parts. The small volume ensures unmatched fast response of the sampling loop.



OptoCom™

Contact your local dealer for alternatives. Will be available for both wired and wireless interfaces. May act as a wireless bridge in a mesh network system.



Duct Mount kit

Contact your local dealer for alternatives. Available for most standard JIS, ISO and ANSI flanges.



Gas Free Test kit

Gas free test kit for safe and easy function and bump testing of detector. Available in a kit of four testers with four different levels.

Standard kit(% LEL): 30, 50, 70 and 80 %.

