# **PG11** Optical Point Detector

## Hydrocarbons





The Optronics PG11 is an explosion proof, rugged Optical Hydrocarbon Gas Detector. 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 abruptions 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/SC3 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/SC3
- HART7 interface
- Heated sapphire optics
- Multicolor indicator
- Extended input voltage range

## **Benefits**

- 6 years warranty
- 15 years warranty on SafeSource™
- Class leading PFD with proof test intervals up to 5 years
- No field calibration
- OptoCom<sup>™</sup> for system integration
- Visual Indicator for local alarms
- One detector several applications



























# **Specifications**

**Technology** Solid-state Infrared SafeSource™ Temperature compensated for rugged applications

### Gases and measuring ranges

0 - 100 %LEL, 0 - 100 %Vol 0 - 100 %LEL Methane

Propane

Other gases on request

#### Calibration

Calibrated at factory, no need for field calibration.

#### Self-test

Continuous health check of all important HW and SW functions

#### Performance

± 3%FS Ассигасу 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

-60 to +75°C / -76 to +167°F -40 to +75°C / -40 to +149°F Storage Operating Temperature

- 100 %RH Humidity

Vibration Resistant to shock and vibration up to 4G

#### Housing

Ingress Protection IP66/IP67, Type 4X Housing material Stainless steel 316L Weight Less than 4 kg Dimensions See helow

#### Electrical requirements and characteristics

Field wiring terminals Cable gland entry options Stranded or solid wires rated up to 2.5 mm² Two M20 entries as standard. M25, ½"NPT

and 3/4"NPT on request

18 - 50 VDC (18-35 VDC for cFMus) Power requirements Power consumption < 3.5W average Soft boot with max 1 A current spikes

### **Approvals**

Ex db eb IIC T5 Gb Ex db IIC T5 Gb 1Ex db e IIC T5 Gb X ATEX/IECEx/INMETRO FAC FX

cFMus Class I Division 1, Groups B, C & D MED, BV, LR, DnV GL, ABS, Class NK IEC 60079-29-1 Marine

Safety Integrity(IEC61508) SIL2/SC3 (SIL3 in 1002 redundancy)

#### **Additional Accessories**

Sunshade Maintenance kit Maintenance Blocking kit Gas Test Nozzle Environmental cap Universal Mount kit

Pole mount kit OntoCom<sup>1</sup>

For more information contact your local supplier.

## Accessories



Insect guard with integrated gas nozzle. No need to remove the guard to perform routine testing.

Gas test kit for field testing. Separate inlet and outlet so test gas can be ventilated 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.



#### Gas Free Bump Test kit

Gas free test kit for safe and easy function and bump testing of detector.



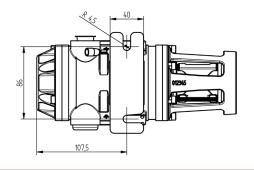
#### Duct Flange kit

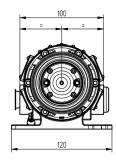
Contact your local dealer for alternatives. Available for most standard JIS, ISO and ANSI flanges.

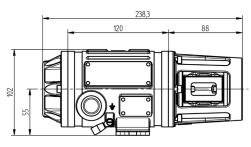


#### Remote Gas Test kit

Remote gas test interface for installations where the detector is out of reach.









### **Optronics Technology AS**

Tel. +47 2264 5555 | info@optronics.no | www.optronics-technology.com linkedin.com/company/optronics-technology