# GD10PE

# IR Extended Point Gas Detector

High sensitivity
Fast reliable response
No field recalibration

The GD10PE is designed for critical applications involving large volumes of air with high velocity. In places where you need fast reliable detection of low gas concentrations. GD10PE is in a class of its own.





The versatile GD10PE is suitable for monitoring, among others, the HVAC air intakes of living quarters, temporary refuges and local equipment rooms. In addition the ventilation air and combustion air intakes of gas turbines can be monitored along with the ventilation air extract duct, the only location where you can guarantee to detect a gas leak on a turbine package.

With a measuring range of 0-20% LEL the GD10PE is 5 times more sensitive than standard point detectors.

The GD10 range of infrared gas detectors differ from all other models, because they utilise silicon based solid-state infrared sources. The complete optomechanical design and construction is so stable that an ultra fast speed of response can be achieved whilst providing unparalleled service life and detector stability, thus saving on maintenance and service costs.

An industry standard HART® interface is used for configuration of the levels as well as access to maintenance data.

#### **Features**

Solid state IR sources (SimSourceTM)

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True dual path, double compensation optical design

5x more sensitive than conventional point detectors

Dual layer weather protector

Early dirty optics warning

Independently heated mirror and lens

Continuous operation at 85°C

# **Benefits**

Superior long term performance compared to filament lamps

Improved stability and speed of response

No recalibration, monitors and accounts for all changes in optical path

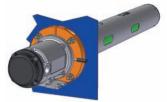
Suitable for critical applications requiring early detection

No mesh, gauze, hydrophobic filters or sinters = No delay, no failure on demand

Improved preventative maintenance

High performance detection in rough environmental conditions

Suitable for gas turbine ventilation extract ducts



Flange mounted for duct installation







# Technical Data

#### **GENERAL**

Detection method IR-absorption, dual wavelength, dual path IR-Source Solid state IR source, 50 Hz flash
Detection range 0-20% LEL (0-1% Vol.) methane
Gases detected Hydrocarbons

Self-test Hydrocarbor Continuous

Calibration Factory set, no field recalibration

# PERFORMANCE

Lifetime stability \*) ±1.4%LEL

Response time Detector 100%LEL 20%LEL

reading: test gas: test gas: 4% LEL 0.6 sec. 1 sec. 10% LEL 0.9 sec 2.5 sec. 18% LEL 1.3 sec. 6 sec.

Start-up time \*) Less than 60 sec.

\*) Ref: -20°C to + 60°C (-4°F to +140°F)

#### **OUTPUT SIGNAL**

Standard Current source 4 – 20 mA, max. load

impedance 500 Ohm

Option Current sink 4 – 20 mA HART® Maintenance and configuration

Detector warnings: Configurable (HART)
- Early clean optics Pre warning (2 mA)
- Dirty optics Dirt accumulation (1 mA)
- Detector failure Internal fault (0 mA)

### **ELECTRICAL**

Power supply 24 V DC, range18-32 V DC

Power consumption Approx. 3.5 W

Connection 3 wires (0.5mm<sup>2</sup> - 1.5mm<sup>2</sup>)

(12 AWG - 22 AWG)

Cable entry M20 EExe cable gland

#### **TEMPERATURE RANGE**

Storage -40°C to 70°C (-40°F to 140°F)
Operating -40°C to 65°C (-40°F to 158°F)

Probe, inside duct up to +85°C (185°F)

Humidity (operation) 100% RH

## **EXPLOSION PROOF HOUSING**

Main compartment EExd IIC T6
Terminal comp. EExe

Protection category IP66/IP67 DIN 40050

Housing material Stainless steel SIS2343 (ASTM 316)

Dimensions 104W x 105D (mm);

30.9 x 4.1 x 4.1 (inches) Overall

Weight (detector) Approx. 6.5 kg (14.3 lbs)
Weather protection Approx. 0.3 kg (0.7 lbs)
Duct mount kit Approx. 2.1 kg (4.6 lbs)

#### WARRANTY

5 years full warranty on complete instrument 15 years warranty on the IR-sources

#### **APPROVALS**

ATEX 07ATEX 1438 CSA 1773527 IECEX NEM 07.0006 INMETRO AEX-11698

SIL Qualified for SIL2 and SIL3 systems

# **VERSIONS**

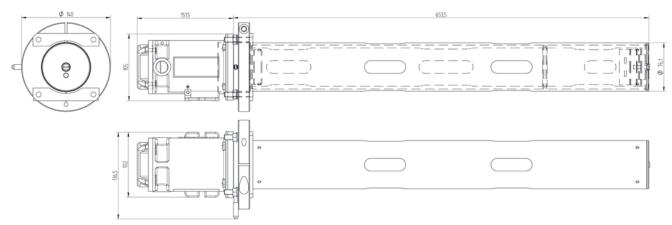
Gas Ranges
Methane 0-20%LEL
Ethylene 5,000 PPM

Other versions are available, please contact your dealer.

# **ACCESSORIES**

Weather protection Required for standard installation Sample flow housing For sampling systems and testing

Duct mount kit Through wall installation





#### Simtronics AS

Kabelgaten 8, Økern Næringspark P.O. Box 314, Økern, NO-0511 Oslo, Norway Tel. +47 2264 5055

Email: mail@simtronics.no

#### Simtronics SAS

792, av de la Fleuride BP 11016, 13781 AUBAGNE CEDEX - FRANCE Tel : +33 (0) 442 180 600

Email: contact@simtronics.fr