



## Description

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.

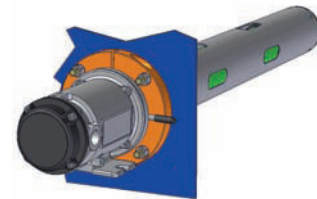
With a measuring range of 0-20% LEL the GD10PE is 5 times more sensitive than standard point detectors.

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 constructions is so stable that an ultra fast speed of response can be achieved while 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.



High Sensitivity  
Fast Reliable Response  
No Field Recalibration



Flange mounted for duct installation



## Features

- ▶ Solid state IR sources (SimSource™)
- ▶ High IR source flash rate
- ▶ 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

# Model GD10PE ■ IR Extended Point Gas Detector

R853-814560-R07

## General

**Detection Method:** IR-absorption, dual wavelength, dual path

**IR-Source:** Solid state IR source, 50Hz flash

**Detection Range:** 0-20% LEL (0-1% Vol.) methane

**Gases Detected:** Hydrocarbons

**Self-test:** Continuous

**Calibration:** Factory set, no field recalibration

## Performance

**Lifetime Stability\*:** ±1.4 LEL

**Accuracy\***

±1% LEL (0-10% LEL reading)

±1.4% LEL (0-20% LEL reading)

**Response Time**

Detector Reading	100% LEL Test Gas	20% LEL 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.

\* Refers to -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 - Prewarning (2 mA)

Dirty Optics - Dirt accumulation (1 mA)

Detector Failure - Internal fault (0 mA)

## Electrical

**Power Supply:** 24 VDC range 18-32 VDC

**Power Consumption:** Approx. 3.5W

**Connection:** 3 wires (0.5mm<sup>2</sup> - 1.5mm<sup>2</sup>)  
(12 AWG - 22 AWG)

**Cable Entry:** M20 EExe cable gland

Specifications subject to change without notice

## Temperature Range

**Storage:** -40°C to +70°C (-40°F to +158°F)

**Operating:** -40°C to +65°C (-40°F to +149°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)

## Approvals

**ATEX:** 07ATEX1438

**CSA:** 1773527

**IECEx:** NEM 07.006

**INMETRO:** AEX-11698

**SIL:** Qualified for SIL2 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

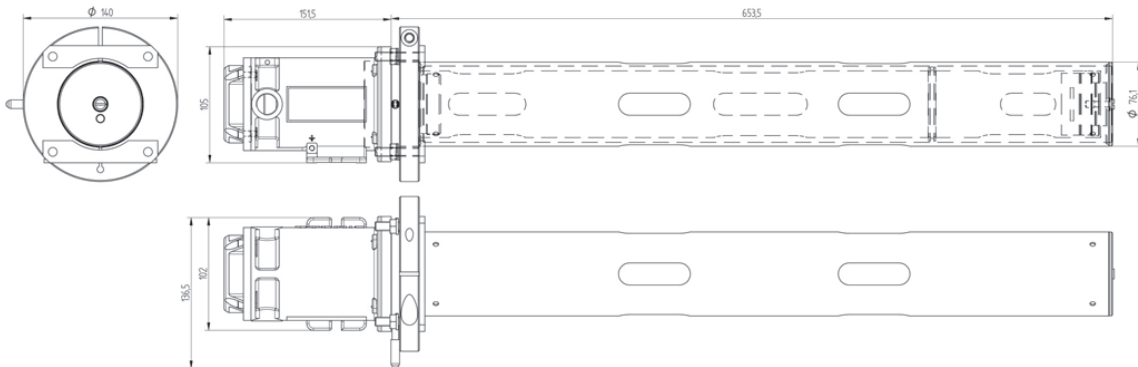
**Sample Flow Housing:** For sampling systems and testing

**Duct Mount Kit:** Through wall installation

## Warranty

5 years full warranty on complete instrument

15 years warranty on the IR-sources



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