

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 (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



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	Continuous
Calibration	Factory set, no field recalibration

PERFORMANCE

Lifetime stability *)	±1.4%LEL		
Accuracy *)	±1%LEL (0-10 % LEL reading)		
	±1.4%LEL (10-20 %LEL reading)		
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, range 18-32 V DC
Power consumption	Approx. 3.5 W
Connection	3 wires (0.5mm ² - 1.5mm ²) (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

