**Presentation**

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 and benefits include an independently heated mirror and lens for high performance detection in rough environmental conditions and guaranteed continuous operations at 85°C which make this instrument suitable for turbine ventilation extract ducts.

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**Features**

- Solid state IR sources (SimSourceTM) for superior long term performance compared to filament lamps
- No recalibration, monitors and accounts for all changes in optical path thanks to true dual path, double compensation optical design
- Selectable response rate
- Dual layer weather protector (No mesh, gauze, hydrophobic filters or sinters = No delay, no failure on demand)
- Early dirty optics warning for improved preventative maintenance
**Technical data**

**General**
- **Detection method**: Infra-red absorption, dual wavelength, dual path
- **Infra-red source**: Solid state infra-red source, 50kHz flash
- **Detection range**: 0-20% LEL (0-1% vol.) Methane
- **Gases detected**: Hydrocarbons
- **Self-test**: Continuous
- **Calibration**: Factory set, no field recalibration

**Performance**
- **Accuracy**
  - refers to -20°C to +60°C (-4°C to +140°F)
  - ±1% LEL (0-10% LEL reading)
  - ±1.4% LEL (10-20% LEL reading)
- **Response time**
  - Detector reading: 100% LEL test gas: 4% LEL 0.6 Sec., 10% LEL 0.9 Sec., 18% LEL 1.3 Sec.
  - 20% LEL test gas: 2.5 Sec., 6 Sec.

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

**Electrical**
- **Power supply**: 24V DC, range (18 - 32V DC)
- **Power consumption**: Approx. 3.5 W
- **Connection**: 3 Wires (0.5 mm² - 2.5 mm²)
- **Cable entry**: M20 hex cable gland

**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)

**Explosion proof housing**
- **Main compartment**: Exd IIC T6
- **Terminal comp.**: Exe
- **Protection category**: Ip66/IP67 din 40050
- **Housing material**: Stainless steel SIS2343 [ASTM 316]
- **Dimensions (LxWxH)**: 104 X 105 (mm)
- **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 a complete instrument
- 15 Years warranty on the IR-sources

**Approvals**
- **ATEX**: II 2G Ex d e IIC T5/T6 Gb
- **CSA**: Ex d e IIC T5/T6 Gb
- **IECEx**: Ex d e IIC T6 Gb
- **INMETRO**: Ex d e IIC T6 Gb
- **SIL 2/3**: ToV 968/FSP 1186.00/15

**Versions**
- **Gas Ranges**: Methane 0-20% LEL

**Accessories**
- **Weather protection**: Required for standard installation
- **Sample flow housing**: For sampling systems and testing
- **Duct mount kit**: For through wall installation

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Teledyne Gas & Flame Detection quality assurance programmes demand the continuous assessment and improvement of all our products. Information in this leaflet could thus change without notification and does not constitute a product specification.

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