

Status Scientific Controls

Gas Detection Technology



FGD5/6-IR Infrared Gas Detector For Direct Replacement of Oil & Gas Industry Pellistors

- No routine maintenance required*
- Lowest operating costs
- Lowest price IR Detector
- Smallest size IR Detector
- Eliminates all poisoning problems associated with pellistors
- Patent No. GB2401679

**SHELL THORNTON LABORATORY
TESTED & APPROVED**



**Plug-in
Infrared
Sensor**



Features

- MTBF of 5 years
- Compatible with industry standard control panels
- Remote gas testing facility
- Constructed in grade 316 stainless steel and nylon
- Self heating to protect against obscuration
- Does not utilise mirrors, lenses or separate heaters
- Output signal can be set as rising or falling

* Routine gas testing only is required because the test gas is applied externally, all physical and electrical elements of the instrument are tested to confirm continued safe operation.

FGD5/6-IR Infrared Gas Detector

For Direct Replacement of Oil & Gas Industry Pellistors

Sensor and weatheguard with gas testing facility

Mounted vertically to maximise resistance to water ingress

OVERALL LENGTH WHEN MOUNTED IN WEATHERGUARD = 170mm (6 3/4")

Specification

Size	Body 94mm long x 50mm diameter, thread 20mm long. Overall body length with weatheguard fitted = 170mm
Material	Sensor Body - Stainless Steel Grade 316 Weatheguard - Stainless Steel Grade 304 & Nylon 66
Mounting thread	M20 X 1.5 or M25 X 1.5 or ½" NPT
Weights	1 Kg including Weatheguard
Recommended operating current	160 to 250mA (200mA version) 250 to 350 mA (300mA version)
Gas types	Hydrocarbons. Note: Infrared sensors have no response to Hydrogen
Operating voltages	3.2 to 7.5 volts dc at detector head
Max. short term overload voltage	24 volts dc
Output signal	15 to 30 mV / % CH4
Sensor type	NDIR Infrared
Measurement range	0-100% LEL (5% vol. CH4) or 0-100% volume CH4
Measurement resolution	1% LEL or 1% volume (CH4)
IP rating	Enclosure IP66, Sensor IP65
Operating temperature	- 20 to +50° C
Storage temperature	- 20 to +50° C
Humidity range	Infrared – 0 to 95% RH non-condensing
Operating pressure	Atmosphere + or - 10%

Connections

Red	V+
Black	0 volts
White	Signal, proportional to gas level
Blue	Signal direction: Falling , connect to Ov (Black) Rising , connect to V+ (Red)
Green/ Yellow	Earth



Sensing head mounted in associated weatheguard constructed in Grade 304 stainless steel and nylon

Push-in connector suitable for 6mm O/D tubing to facilitate remote gas testing

European Hazardous Area 'ATEX' Certification

Certificate numbers	KEMA 03ATEX2247U IECEX KEM 06.0022U
Certification code	II 2 G Ex d IIC T4(-20°C<Ta<+60 °C)
Standards	EN 60079-0:2018 EN 60079-1:2014 IEC 60079-0:2004 Edition 4.0 IEC 60079-1:2003 Edition 5.0
Zones	1 & 2