

### 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 weatherguard 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 weatherguard fitted = 170mm       |
| Material                         | <b>Sensor Body</b> - Stainless Steel Grade 316<br><b>Weatherguard</b> - Stainless Steel Grade 304 & Nylon 66 |
| Mounting thread                  | M20 X 1.5 or M25 X 1.5 or ½" NPT   |
| Weights                          | 1 Kg including Weatherguard  |
| Recommended operating current    | 160 to 250mA (200mA version)<br>250 to 350 mA (300mA version)  |
| Gas types                        | Hydrocarbons. <b>Note: Infrared sensors have no response to Hydrogen</b>                                     |
| 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

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



Sensing head mounted in associated weatherguard 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

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