



Groveley Detection Limited

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Flameproof Ultrasonic Gas Leak Detector **GDU-Incus**

Groveley Detection have been manufacturing fire and gas detection products for use in hazardous areas since 1991.

We have designed and manufactured ultrasonic gas leak detectors since 2006 and have supplied extensively to the oil and gas industry for both onshore and offshore applications.

The GDU-Incus is an ultrasonic gas leak detector for detecting airborne ultrasound generated from pressurised gas leaks.

The detector comprises four independent sensing heads designed using Groveley's patent pending floating crystal technology. The piezo-electric sensor heads are encased in a ceramic housing and sealed against the harshest of environments. The design ensures full functionality from -55°C to +85°C.

Each sensor is free of moving parts and will not age, drift or need replacing during normal working conditions.

Benefits

- Unaffected by weather conditions
- No calibration required - simple to maintain
- Can be mounted horizontally or vertically
- Self-clean and self-test functions
- We are an ISO9001 company
- Sil 2 certified



Designed and Manufactured in the UK

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*No-one ever regretted
buying quality...*

Flameproof Ultrasonic Gas Leak Detector **GDU-Incus**

TECHNICAL DETAILS

General

- Sensor: Floating piezo ceramic
- Detects pressurised gases above 2 bar pressure
- Self-test: Internal electronic self test and optional broadband pressurised gas release on demand or via customer defined cycle
- Calibration: Factory set - requires no field calibration

Performance

- Detection range: 25kHz to 100kHz
- Dynamic range: 50dB to 140dB
- Response time: Instantaneous
- Detection coverage: 2 to 40 meter radius (pressure, size and background noise level dependant)
- Start-up time: ≤ 20 seconds
- Temperature range: -55°C to +85°C
- Relative humidity: 0 to 100%
- Ingress protection: IP66 / IP67

Approvals

- ATEX Ex d ib IIB+H₂ T4 Gb
- IECEx ITS 10.0004X
- SIL 2 certified
- UL pending
- GOST pending

Power

- Supply: 24V DC, range 15 – 30 V DC
- Current consumption: 250mA normal operation (3A maximum using -55°C heated option)
- Cable entry: 2 x M20 (M25, ½" NPT, ¾ NPT option)
- Additional 2 x M20 for serial link option if required

Outputs

- Analogue: Current source 4 – 20mA (Option Current sink 4 – 20mA)
- Digital: RS485 interface
- Relay: 3 relays for alarm, fault and maintenance (Load: 2A max. switch voltage 220VDC max)

Physical

- Dimensions: Ø210 x 272mm
- Enclosure:
Aluminium LM25TF
Weight ≈ 7kg
Additional mounting bracket: Aluminium
Stainless steel AISI 316
Weight ≈ 18kg
Additional mounting bracket: 316 stainless steel

Patent

- Worldwide pending

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