



**GROVELEY DETECTION**

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## Ultrasonic Gas Leak Detector GDU-01

The Groveley GDU is an Omni-Directional intrinsically safe airborne leak detector that responds to pressurised gas leaks.

The GDU does not detect specific values of LEL or ppm, rather, it responds to the sound generated by escaping gas at ultrasonic frequencies. Such signals are generated when leakage occurs at sonic velocity; this requires a driving pressure of at least 2 barA. The detected sound is proportional to the leak rate (mass flow rate). In basic terms, the greater the leak rate (large leak), the greater the ultrasound emitted.

Acoustic gas leak detectors complement traditional gas detection methods used in refineries, gas plants and offshore installations.

The unit is factory calibrated and has no moving or replaceable parts and responds instantly to leaks operating over a wide dB range.

The GDU uses Industry Standard 4-20mA output to interface to the plant control DCS, PLC or 4-20mA input card. Once connected the alarm level should be adjusted to a level higher than the general background noise.

### Features

- Instant online airborne leak detection
- ATEX approved, intrinsically safe
- Rejection of background noise
- 60 dB range, no set-up required
- Large detection area

### Benefits

- Fast speed of response
- Wide detection range
- Low cost of ownership




[www.groveley.co.uk](http://www.groveley.co.uk)

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

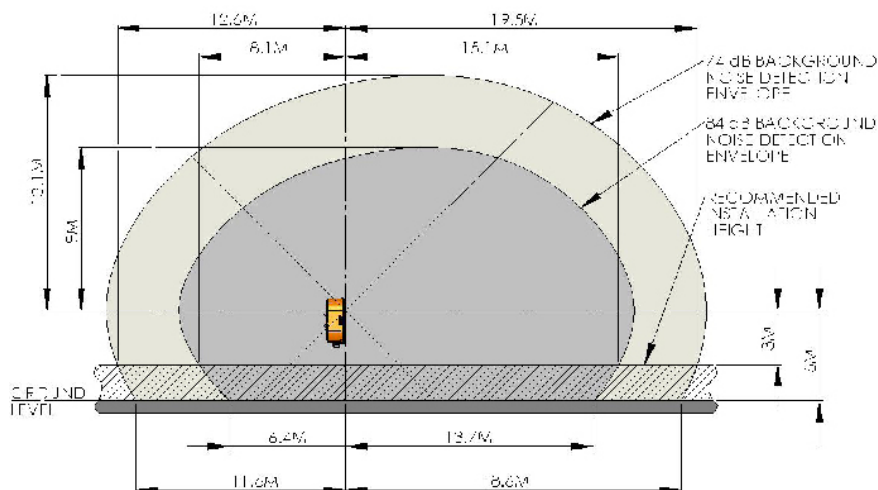
# Ultrasonic Gas Leak Detector GDU-01

## TECHNICAL DETAILS

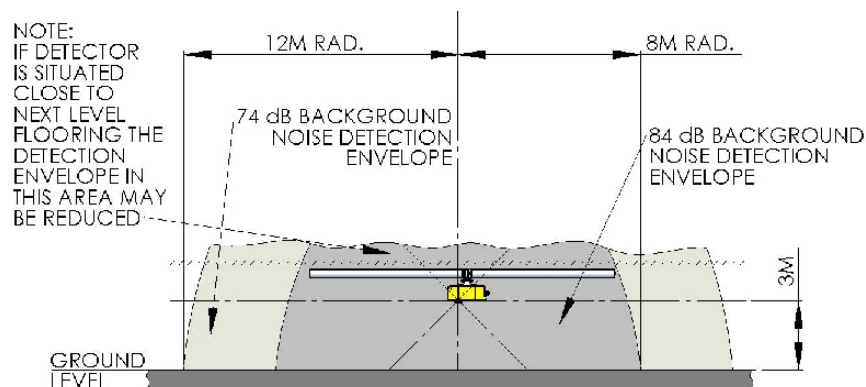
■ Ultrasonic version:	30kHz - 80kHz	■ Cable entry:	1 x M20 (M25 option)
■ ASL Dynamic Range:	>60 dB	■ Dimensions:	245 x 130 x 96.5mm
■ Power:	24 Vdc (<0.5 Watt)	■ Certification:	 II I GD EEx ia IIC T4
■ Output:	4-20mA (Two-wire) Corresponds to 40 - 100 dB 1-5 volts with 250Ω load	■ FMEDA:	3rd part assessed up to SIL1 as a single device
■ Operating Temp:	-30°C to +75°C	■ Approval Number:	DNV-2005-OSL-ATEX-0327
■ Option:	-40°C to +75°C	■ Ingress protection:	IP66
■ Relative Humidity:	100% non-condensing	■ Weight:	2 Kg (approx.)
		■ Enclosure material:	Semi-crystalline modified PPS
		■ Mounting bracket:	AISI 316 Stainless Steel

## Area of Coverage

The degree of coverage is determined by the background sound levels and physical installation.



Horizontal pole mount (onshore),  
detector 3m from ground level  
(free space)



Vertical pole mount (offshore),  
detector 3m from ground level  
(free space)

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