

# AIRBORNE LASER METHANE ASSESSMENT

## LEADERS IN GAS DETECTION

# **ALMA SYSTEM**

Since 197



The ALMA G2 (Airborne Laser Methane Assessment Generation 2) is the solution for effective and economic pipeline and storage network monitoring and inspection.

The ALMA G2 is a cutting-edge laser based natural gas detection system that performs inspections at ground level while airborne.

#### Features:

The advantages of ALMA G2:

- Airborne device mounted on a helicopter
- Highly sensitive
- Real time measurement + alarm feature
- Wide measurement range
- Insensitive to other gases (water vapour, propane)
- Minimal interference with environment
- Pilot camera & monitor to aim laser
- Digital video recording with up to 4 cameras to document laser position and area around pipeline
- Extensive data storage capacity
- GPS tracking
- Laser Range finder
- Extensive data storage capacity
- Post processing software
- Optional IR camera installation
- Optional moving map system for navigation

#### Software:

The ALMA G2 comes with:

 The ALMA G2 Online software is used during the inspection for:

System Control Signal Analysis Using Proprietary Algorithms User Interface Real-Time Data Monitoring with Alarm Feature Data Recoding Including GPS Location

 The ALMA G2 Processing Software is used for:

Post-Inspection Data Review Report Generation

The DVR Video Viewing Software

View up to 4 cameras synchronized\*

- The DVR Configuration Software\*
- Time Synchronization Software\*

\* Depends on type of DVR purchased



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### **Technical Data**

Maximum Measurement Distance	150m
Measurement Time	0.04 sec + 0.2 sec (simultaneously)
Detection Range	25-20'000ppm*m @ 50m or 100-20'000ppm*m @ 100m
Relative Measurement Accuracy	1%
Power Supply	22-32 VDC + 280 W
Operating Temperature Range	-10 – +50°C
Laser Wavelength	1.65 µm
Laser Power	10mW
Minimum Detectable Radiation Power	2 pW
Optical Unit Dimensions	95cm x 67cm x 44 cm (L x W x H)
Optical Unit Weight	43kg
D-Box Dimensions	38cm x 38cm x 34 cm (L x W x H)
D-Box Weight	25kg

#### 2. D-Box

Housing the power distribution, Digital Video Recorder (DVR) and electronics.

#### 1. Laptop with C-Box (Control Panel) & GPS

Is the main computer with user interface for realtime data monitoring, data recording, and post inspection data analysis.

## 4. Pilot Monitor

Helps pilot aim Laser Not pictured below.

# 3. Optical Unit

Housing the Laser, optics, photo detectors, mirrors, rangefinder, and

