



Remote Laser Methane Detector

LM100M



FEATURES

- ' Explosion-proof housing
- ' Detection range: up to 30 metres
- ' Small size and weight
- ' Powerful battery
- ' Shockproof, waterproof and dustproof
- ' Fast response and large measuring range
- ' Bluetooth recording and data transfer function

range
up to

30 m

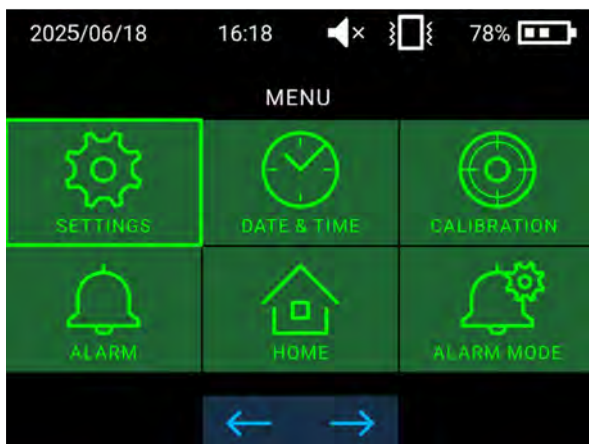


CH₄

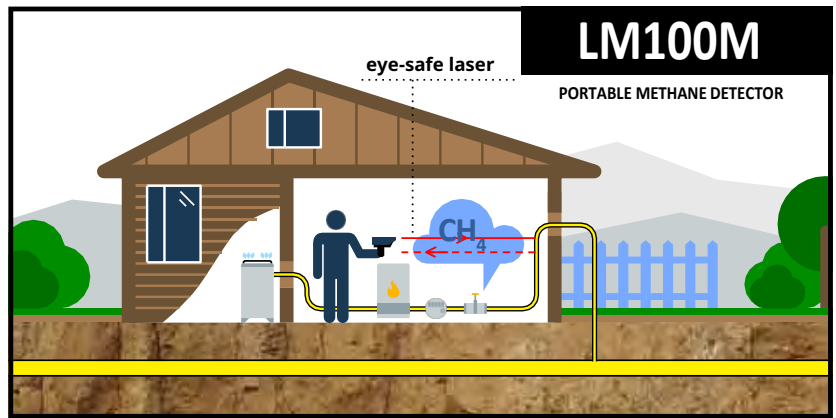
The LM100M is based on the diode laser spectroscopy (TDLS) principle, which enables rapid detection of gas leaks at a distance of up to 30 metres. The remote detection of methane leaks allows monitoring in hard-to-reach places and hazardous areas without any risk to personnel.

Using this device significantly increases the inspectors' efficiency. It is lightweight, has low power consumption, and can be used for extended periods during an inspection. The LM100M has a wide operating temperature range and can operate in high humidity conditions.

The device features a sensitive sensor with a response time of just 0.1 seconds, capable of detecting methane at concentrations down to 5 ppm×m. The LM100M pairs with the Pergam Leak Finder app (Android, iOS). The instrument streams data to a smartphone or tablet over a wireless link.



simple clean Interface designs



Principle of operation

The LM100M measures methane concentration in the air. A laser beam, tuned to a methane absorption wavelength, is reflected by a topographic object (such as the ground or a wall) located up to 30 meters away. The reflected beam returns to the optical system's receiving channel. The measurement represents a path-integrated concentration along the entire beam path and is displayed in ppm×m (parts-per-million-meter).

Technical Specifications

Detection method	Remote laser spectroscopy
Gas detection	CH ₄
Sensor type	Infrared laser
Measuring range	0-10% vol (0 to 99.999 ppm×m)
Detection distance	30 m
Sensitivity detection distance	0-15 m, 5 ppm×m 15-30 m, 10 ppm×m
Measurement accuracy	±10%
Response time	0,1 s
Alarm	Colour and sound
Display Mode	LCD screen
Charging mode	Charger, 110-240V AC, 50/60Hz
Power supply	Rechargeable lithium battery (replaceable rechargeable battery)
Operating time	Operation 10 hours when fully charged
Operating Temperature	From -20 °C to 50 °C
Relative humidity	≤99%
Pressure	80-116 kPa
External size	155×66×42 mm
Machine weight	430 g
Material	ABS plastic
Self-test function	Yes
Laser protection class	Class IIIR
Degree of protection	IP65
Ex markings	II 3 (1) G EX ic [op is Ga] IIA T4 Gc
Accessories	Ergonomic strap



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