

# LaserMethane® *mini* Gen2

## Methane Detection at a Distance



### LaserMethane® *mini* Gen2

The second generation LaserMethane® *mini* Gen2 from Crowcon is changing the way methane leaks can be detected.

Utilising laser technology, LaserMethane® *mini* Gen2 (LMm) allows users to reliably and accurately detect methane, at a safe distance.

Get results in seconds by simply pointing the laser beam towards the suspected leak, or along the survey line. This removes the need to access fenced-off, high level or other hard to reach areas.

#### Safety First

- Remote measurement and detection, up to 100 metres
- No specialist or special access equipment required to detect leaks
- ATEX approved for industrial use and now includes mining applications

#### Easy to Use

- Portable – truly hand-held
- Light weight, compact and robust design
- Intuitive menu
- Full colour numeric or graphical display

#### Flexible and Convenient

- User programmable alarm and offset levels
- Long battery life – allowing 6 hours of continuous operation from one battery
- Self-check and self-calibration at start-up, saves time and ensures consistent high performance and reliability

#### Accuracy and Reliability

- Responds specifically to methane
- Exceptional accuracy - detects even very low levels of methane
- Fast response time, typically 0.1 seconds

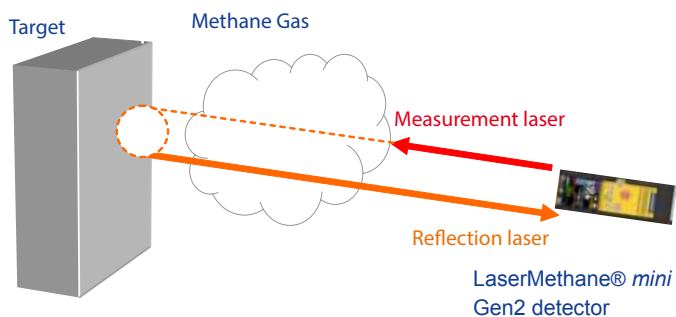
Crowcon's LaserMethane® mini Gen2 can accurately and reliably detect gas leaks from a distance. What was once a time and resource consuming activity can now be completed in seconds.

**Measurement Principle**

By pointing the LaserMethane® mini Gen2 at a suspected leak or survey area, such as a gas pipe or ceiling, the concentration of methane is measured by detecting the difference between the light emitted and the light received.

In order to achieve high detection sensitivity and selectivity for methane, LaserMethane® mini Gen2 uses a wavelength that both exhibits maximum adsorption and is unique to methane.

The methane column density is the concentration of methane between the detector and the target and is the product of the concentration of the methane cloud (ppm.m) and path length through the cloud (metres) and is reported in units of ppm.m.



**Typical Applications**

- Methane beyond reach i.e. difficult to reach or inaccessible areas
- Large area monitoring e.g. pipeline survey
- Hazardous area monitoring eg petrochemical refinery
- Secondary disaster prevention i.e. accumulated gas clouds in roof spaces of buildings in commercial and industrial property
- Methane detection through windows/letterbox of unoccupied property

Please refer to LaserMethane® application guide for more information.

<b>Size</b>	70 x 179 x 42mm, (2.8 x 7 x 1.6 inches) WxDxH
<b>Weight</b>	600g (1.3lbs), including battery
<b>Target Gas</b>	Methane (CH <sub>4</sub> )
<b>Detection Method</b>	Tunable diode laser absorption spectroscopy (TDLAS)
<b>Detection distance</b>	30m standard mode Up to 100m with reflector
<b>Measuring range</b>	1 – 50,000 ppm.m (dependent on the reflecting object and detection distance)
<b>Measuring accuracy</b>	±10% @ 100 ppm.m (2m) ±10% @ 1000 ppm.m (2m)
<b>Detection speed</b>	0.1 seconds (approx)
<b>Audible Alarm</b>	72dB to 76dB @ 0.3m and dependent on angle
<b>Reflect Warning</b>	Insufficient reflect warning, audio and visual
<b>Display</b>	Full colour electro-luminescence display
<b>Operation</b>	Logical menu functions
<b>Battery</b>	Rechargeable nickel metal hydride
<b>Operation time (laser on)</b>	6 hours minimum per charge (4 hour recharge) at 25°C @ display level 5
<b>Operating temperature</b>	-17° to 50°C (1° to 122°F)
<b>Operating humidity</b>	30% to 90% RH
<b>ATEX</b>	CE 0344 Ex ib op-pr/op-is IIA T1 (EN 60079-0 : 2006 , EN 60079-11 : 2007 EN 60079-28 : 2007)
<b>Ingress Protection</b>	IP54
<b>CE</b>	CE 0344
<b>EMC</b>	EN61326-1 : 2006
<b>Laser Safety</b>	IEC 60825-1 : 2001  <b>Marker laser :</b> Output wavelength 650 nm Output level: 1 mW (Class 2) or less  <b>Detection Laser:</b> Output wavelength 1653 nm Output level: 10 mW (Class 1) or less  <b>Caution! NEVER LOOK INTO THE LASER BEAM. Never point this detector towards the sun.</b>
<b>Standard product supplied with</b>	Battery charger Operator manual (English and Japanese as standard) Rechargeable battery Strap Protective boot
<b>Optional Extras</b>	Carry case Extra battery Laser enhancement glasses



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