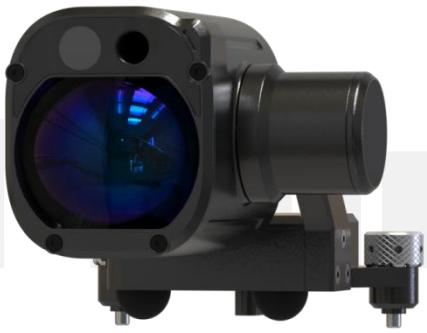
# Intelligent Laser Methane Telemetry System-FORNAX LM mini5



LM mini5 is a small laser methane telemetry system equipped with a high-sensitivity laser methane detection module. Controlled by the drone remote control APP, it displays methane-related data in real time and records the over standard alarm message. The laser detection module can accurately detect methane leaks within 80 meters at high altitude, and the innovative glass penetration technology can achieve a maximum penetration of 5 layers of glass. Combined with small drones, it can conduct outdoor inspections for indoor scenes. It is widely used in indoor scenarios such as unsuccessful visits to gas customers, chemical enterprise indoor inspections, and can also be used to detect natural gas leaks in areas that are difficult for personnel to reach, such as top pipelines of urban buildings, outdoor pipelines, crossover pipelines, and storage tanks. It is characterized by low cost, easy portability, and high maneuverability. It is equipped with a cloud platform as standard configuration, which can return scene images and detection data. If a leak is found by intelligent data analysis, it will give alarms immediately, record

the inspection track and alarm events, and automatically generate an inspection report.

5-layer glass penetration

Sensitivity of 5 ppm*m

80-meter telemetry distance

Professional Methane detector

Intelligent analysis of cloud data

Integrating indoor/ outdoor flight APPs

Lens follow-up

Compatible with multiple flight platforms

## Product Parameters

### Device host

| | |
|---|---|
| Name | Intelligent laser methane telemetry system |
| Model | LM mini5 |
| Electrical interface | Type-C port |
| Dimensions | 67*79*86mm |
| Weight | 174g±5g |
| Material | Metal |
| Rated power | 5W |
| Rated power | 17V |
| Power supply mode | power supply by drone |
| Control distance | consistent with drone link |
| Control method | drone remote control |
| Remote Monitoring | Support |
| Presentation format | Numerical values, two-dimensional plane, three-dimensional bar chart |
| Report Export | Support |
| Inspection method | Manual inspection rounds, automatic inspection rounds |

| | |
|---|---|
| Data traceability | Support |
| Sensitivity | 5ppm·m |
| Concentration range | 0-100000ppm·m |
| Basic error | (0–1000) ±50 ppm·m<br>(1000–10000) ±10% of true value ppm·m |
| Laser Safety | Detection laser CLASS I<br>Indicator laser CLASS III |
| Telemetry distance | 80 metres (depending on light intensity) |
| Infrared detection laser | 1653nm |
| Green indicator laser | 560nm |
| penetrate the glass | 5th floor |
| Mechanical stop | -35° to 35° |
| Heat dissipation method | Active cooling |
| Ingress Protection Rating | IP54 |
| Supported models | DJI Matrice 4/4D Series, DJI Mavic 3 Enterprise Series |
| Working pressure | 40 to 160 kilopascals |
| Operating temperature | -35℃ to 60℃ |
| Storage temperature | -45℃ to 75℃ |
| Ambient humidity | 10% relative humidity to 95% relative humidity |
| Vibration testing | Complies with GB/T 2423.10 standard |
| Salt spray test | Complies with GB/T 2423.17 standard |

## Product Characteristics

### Compact structure Easy to plug and play

The new generation of the methane telemetry system has a compact structure and small size, weighing only 180g. It can achieve multi-layer glass penetration, with a high sensitivity of 5ppm*m and 80-meter remote telemetry.

### Methane detection sensor Capable of pitch

By using a remote controller, it can achieve a pitch angle of +30° to -30° for the detection sensor, expand the detection area, adapt to complex scenes, reduce obstruction interference, and significantly improve detection efficiency.

### Professional Intelligent APP

The device is controlled through the remote controller APP with the measurement data dynamically displayed and the alarm messages intelligently recorded.

### Cloud platform data return for analysis

The intelligent inspection cloud platform can report on-site operation images and detection data in real time and generate a three-dimensional distribution map of methane detection in real time, providing visual decision-making information.

### High compatibility

The device can adapt to multiple small aircraft, reducing usage costs compared with traditional solutions.