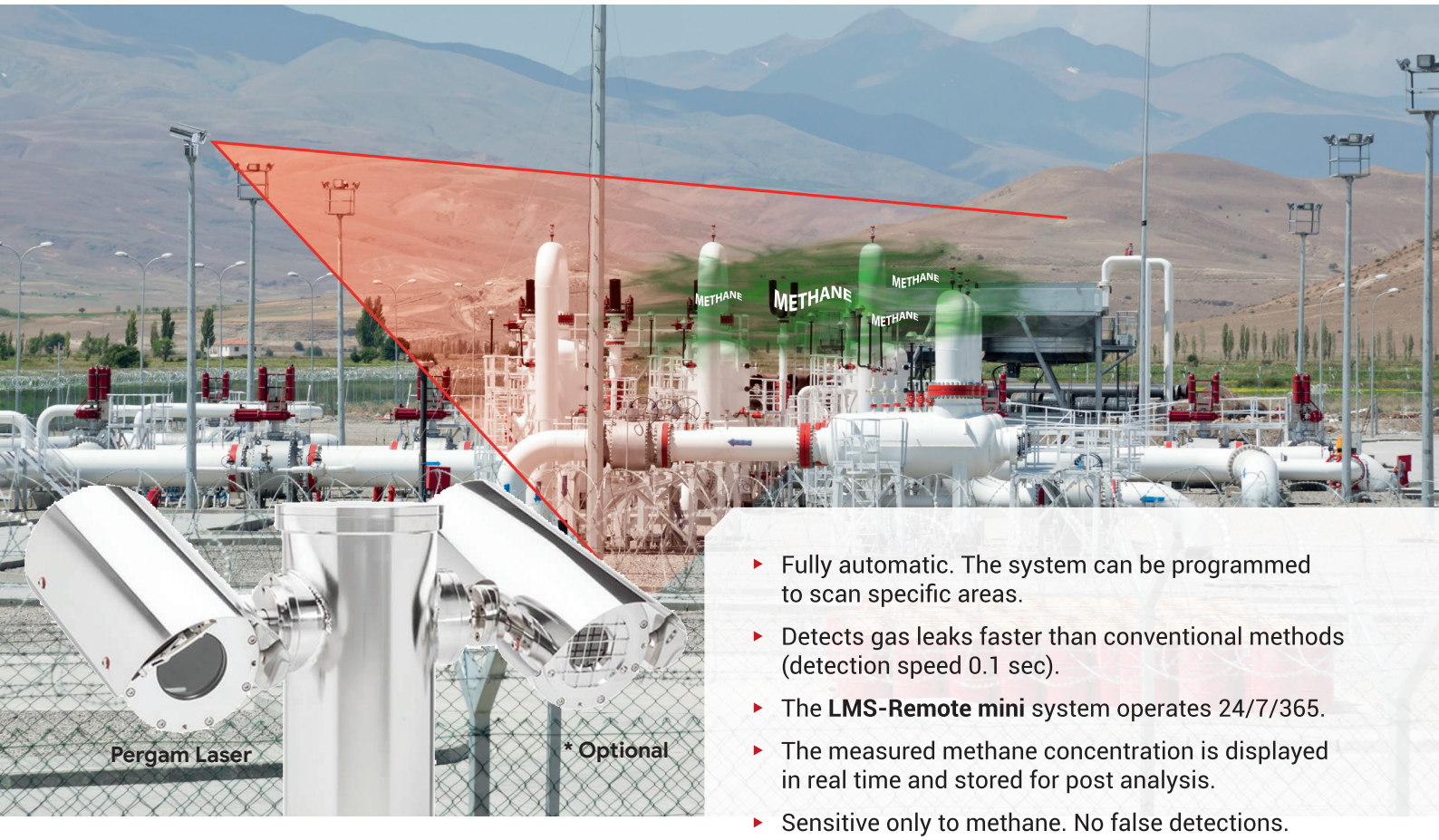
PERGAM-SUISSE AG

We Invent to Prevent

LMS-Remote mini

Laser-based Gas Monitoring System

System description **LMS-Remote mini** is a stationary natural gas leak detection system for remote monitoring of elevated methane gas concentrations in ambient air. It is specifically designed for the constant scanning and monitoring of mission-critical areas such as compressor stations, gas tanks, storage facilities, tank farms, gas stations and LNG Terminals, city gates and wellheads.



- Fully automatic. The system can be programmed to scan specific areas.
- Detects gas leaks faster than conventional methods (detection speed 0.1 sec).
- The **LMS-Remote mini** system operates 24/7/365.
- The measured methane concentration is displayed in real time and stored for post analysis.
- Sensitive only to methane. No false detections.
- Panoramic scanning capabilities, no blind zones.
- Can be fully integrated with existing facilities
- User-friendly software.
- Complete monitoring include database of operation actions. Archive data for the entire period of operation.
- Explosion-proof certificate.
- Calibration and self-check during operation.

LMS-Remote mini

SPECIFICATION

Maximum measurement distance	**60 m**
Range of movement	Azimuth n × 350° Elevation –90 to +90
Measurement time	0.1 sec
Sensitivity of 0.1 sec measurement time	25 — 20,000 ppm×m
Laser wavelength	1.65 µm
Laser power	10 mW
Power supply	24 V
Total weight	50 kg
Enviroment protection	IP67
Operating temperature range	–40°C to +67°C
Relative measurement accuray	1% (but < threshold sensitivity)
Selectivity to other gases	< 10 Exp 4
Service intervals	2 years

Technical specifications may change without notice.

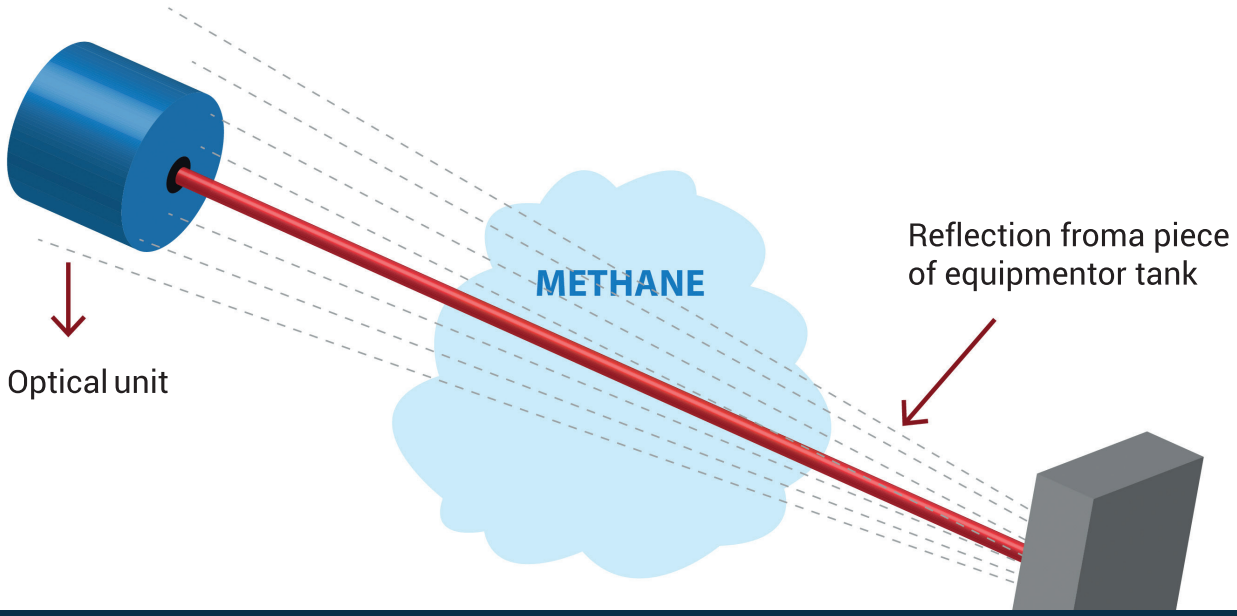
Principle of remote detection

LMS-Remote mini is based on the utilization of laser absorption spectrophoto-meter of methane gas for gas mesurement.

The system detects natural gas leaks by emitting a laser at particular wavelength and analyzing the light reflection from an object to determine how much was absorbed by the methane in the natural gas.

The measured gas volume is expressed by methane column density (ppm - m): methane density (ppm) multiplied by thickness (m).

LMS-Remote mini system can be fully integrated into existing structures including interaction with other systems such as fire protection systems, gas emission control systems and SCADA systems.



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