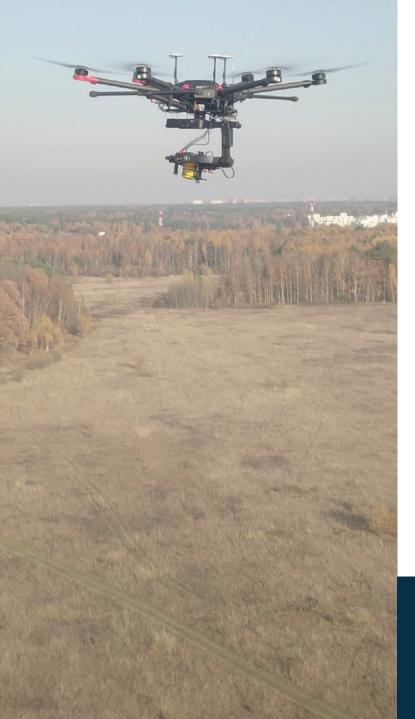
LASER FALCON

+ PERGAM DATA LOGGER



Laser Falcon is a very lightweight laser-type methane gas detector which uses the same measurement principle as the popular Laser-Methane-mini. The dramatically reduced weight of the product allows a variety of new applications of the device including airborne methane monitoring and robotic instrumentation. Measurement data is sent through a communication port and is backed up in a USB stick. Power supply through the external power connector enables continuous operation of the device.

Features and Benefits

- Track the inspected route with coordinatesand gas concentration
- On-line (in-flight) data transmission—
- through the standard DJI communication line
- Easydata export for reporting
- Eye-safe Class 2 laser
 - Automatic time synchronization by GPS/ GLONASS.Report created with all necessary information (time, leak concentration, GPS
- coordinates, maps)
- Maximum flexibility to install on any type of UAV



We Invent to Prevent

Laser Falcon Technical Specifications

	Target Gas	Methane (CH_4) and methane-containing gases (natural gas and similar)
red -	Detection Limits	1—50,000 ppm×m
	Distance	up to 50 m, best results 30 m
	Detection Speed	0.1seconds
4	Sampling Rate	2 per second, 5 measurements per data point
	Power Supply	5V, 7.5W Sensor Only (UAV or Power Bank)
	Laser Safety Class	Guide light (Red laser light) : Class 2 Measurement light (infrared laser light) : Class 1
	Calibration	Self-calibrating with integrated reference cell
	Operating Temperature Range	–17°C+50°C
	Dimensions	100 × 82.5 × 80 mm Sensor Only
	Weight	0.250 kg Sensor Only, 0.450kg With Kit
	Data	- Real-Time Reading via HDMI - Measurement data with GPS position - Sensor Only: RS-232C over USB
Standard package	 Sensor GPS receiver and mini PC (Data storages and HDMI) Process software to make reports with Google Maps 	
Measurement beam	Guidebeam	
External _{PC} Power power SW	LED CAL Micro SD SW Card PE	RGAMdata logger (mini PC) Laser Falcon optical unit

Principle of Remote Gas Detection

Laser Falcon 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 a 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 lenght (m).

The Optical Unit (OU) of the **Laser Falcon** detector could be installed on a gyro stabilized platform so that the laser beam is continuously directed towards pipelines and other natural gas facilities.



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