



- Methane-specific TDLAS detection (0.5 ppm to 100% vol)
- ATEX Zone 1 certified for explosive environments
- Fast response (T90 ≤ 2.5 s; 3.5 s w/ probe)
- Integrated GPS & Bluetooth
- · Lightweight & rugged 2.9 lbs (1.3 kg), IP65)
- Swappable Li-Ion battery with 10 hour life at 68°F (20C); 8 hours at extreme temperatures with backlight activated
- · Fast and reliable measurements, no gas cylinders needed
- Real-time audio/visual alarms & data logging

DESIGNED FOR

- Distribution & transmission pipeline networks
- Utility company leak surveys
- Meter/pipeline pinpoint inspections
- Emergency leak response
- Regulatory compliance & reporting
- · Biogas plant leak surveys
- · Landfill & remediation site monitoring

SMART METHANE DETECTION FOR CRITICAL INFRASTRUCTURE SAFETY

LASER-based Tunable Diode Laser Absorption Spectroscopy (TDLAS) delivers unparalleled methane specificity—no cross gas impact. Trusted by utilities and pipeline operators for rapid, precise methane leak detection—from tracer-level 0.5 ppm to 100%

QED Environmental Systems Inc.

2355 Bishop Circle West Dexter, MI 48130, USA



Data Sheet Reference: TDS-2411 (Issue 04)













LASER ONE



Benefits at a Glance:

- Total Methane Selectivity No false readings from propane, CO2, humidity™
- Rapid field deployment Warm-up in 30-60 s, handheld operation
- No consumables No cylinder, no flame, no calibration gas
- Intrinsically safe Certified for use near flammable gas lines
- Accurate & compliant Meets DNO, utility reporting requirements

TECHNICAL SPECIFICATION

POWER SUPPLY			
Battery type	Li-ion rechargeable battery pack (user replaceable)	Battery charger	Separate intelligent battery charger powered from mains supply (100-240V, or via vehicle power outlet)
Battery life	Swappable Li-Ion battery with 10 hour life at 68°F (20C); 8 hours at extreme temperatures with backlight activated	Charge time	Approximately 4.5 hours from complete discharge
GAS RANGES			
Gases Measured	CH ₄	Range	1-9,999ppm / 1%-100% (Vol)
Response time	Without Probe : T ⁹⁰ = 2 seconds		
	With Probe : T ⁹⁰ = 2.5 seconds		
Methane Detection	≤10ppm Detectable +/-1.0ppm	11-9,999ppm: +/- 10% of reading	1%-100%Vol +/- 10% of reading
Resolution	0.1ppm / 0.1% (Range dependent)	Minimum detectable limit	0.3ppm
PUMP			
Flow	Minimum : 0.6 L/Min	Typical : 0.8 L/Min	Maximum : 1.0 L/Min
ENVIRONMENTAL CONDITIONS			
Operating Temperature	-25 to 50°C /-13 to 122° F	Humidity Range	5% to 80% Relative Humidity (non-condensing)
Atmospheric Pressure/ Range	1013mbar +/-100mbar/29.91 inHg +/- 2.95inHg	Protection Level	IP65
PHYSICAL			
Weight	1.3 kg / 2.9 lb		Humidity <95%
Dimensions	229 x 97 x 109 mm / 9 x 4 x 4.2 inches		Temperature-40°C to +60°C/-40°F to 140°F
Alarm Sound Level	~85 dBA @30cm / 12"	User Interface	• Display (LxH): 86 x 47mm / 3.39" x 1.85"
			Jogdail: Scroll menu for rapid and easy selection of menu items.
			• 3 Function Keys
Gas Connections	Quick Release Coupler	Electrical Connections	Multiway adaptor for battery charger and USB communication port with a PC
		Carry Strap	30mm/1.2" wide synthetic woven strap
CERTIFICATION RATING			
(Ex) II 2 G Ex ib op is IIB T3 Gb -25			

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