UAV BASED LASER METHANE SENSOR

Model ~ DroneCHEM-LX

FEATURES:

- DETECTS METHANE AT DISTANCE
- OPTICAL LASER DETECTION
- MINI-PC WITH WIFI DOWNLOAD LINK OR DIRECT
- REAL-TIME DATA DOWNLOAD
- GPS LINKED VIA UAV
- DISPLAY ON GROUND STATION: GRAPH & MAP
- SMALL & LIGHTWEIGHT
- QUICK CONNECT TO UAV



DRONECHEM-LX
METHANE LASER SENSOR

DRONECHEM-LX
(METHANE LASER SENSOR)
Full unit with mini-PC &
External Power Supply



APPLICATION:

The UAV based DroneCHEM-LX is perfect for flying pipelines, oil fields and other facilities that run the risk of methane leaks into the atmosphere.

DESCRIPTION:

The DroneCHEM-LX a light-weight unit that connects to US Nuclear Corp provided UAVs. Utilizing an optical laser detection for methane can be up to 82 feet away, depending on plume size and methane ppm.

This detection method keeps workers out of harm's way.

Detection is GPS tagged.

SPECIFICATIONS:

Detector: Optical Laser

Gas Measured: Methane (CH4) and methane containing gases (natural or similar)

Sensitivity: 1 to 50,000 ppm

Detection Distance: 82 feet (25 meters) (Sensitivity decreases with distance increases)

Laser Wave-Length: 1.65 µm





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Laser Power – Measurment: 10 mW Class 1, Wavelength: 1653 nm
Laser Power – Guide Light: 5 mW Class 2, Wavelength: 532 nm

Laser Safety Class: Guide light (Red Laser): Class 2

Measurement light (infrared laser light): Class 1

Laser Beam Diameter at Altitude:

Altitude	Diameter
32 feet (10 meters)	3 inches (0.08 meters)
65 feet (20 meters)	7 inches (0.18 meters)
98 feet (30 meters)	10 inches (0.27 meters)

Flight Speed: Best results – 8 knots; Max: 30 knots

Accuracy: ±10%

Electronics: Mini-PC.

Display: Real-time download to ground station, laptop or tablet via

WIFI.

Environmental Temp: 1.4° F to 122° F $(-17^{\circ}$ C to 50° C)

Humidity: 30%–90%

Detection Speed: 0.5 seconds

Detector System Power: 5 VDC, 3A

Case: Detector & Electronics housed in rugged, enameled

aluminum housing with quick release to UAV.

Weight & Dimensions

Dimensions: L 7 .25" x W 2.75" x H 1.5" (L 18.5 cm x W 7 cm x H 4 cm)

Weight: 1 lb. (0.45 kg)

Carrying Case: Fitted Case

