

# / LaserGas™ III OP Gas Detector



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NEO Monitors LaserGas™ III Open Path Gas Detector is based on our highly successful LaserGas™ III platform and is specifically designed for measurements in critical emission monitoring and fence line applications in hazardous areas. Utilizing separate compact Exd flameproof enclosures, the transmitter and receiver units can be mounted up to 100 meters apart (application dependent), allowing gas concentration measurements along the optical path to be detected in real-time.

## Features

- Zone 1 Exd certified for operation in hazardous areas
- Suitable for use in SIL2 systems
- Compact footprint
- Automatic continuous system health check
- Low power requirements <15 watts
- Factory calibrated with no zero drift
- No interference from other background gases
- Low maintenance TDLAS measurement technique

## Applications

- Safety critical open path and fence-line emission monitoring across a wide range of industrial sites, including:
  - Oil & Gas
  - Petrochemicals
  - Chemical plants
  - Metals Industry

## Customer benefits

- High performance reliable and proven optical laser measurement technique
- NEO Monitors measurement algorithm ensures no cross-interference
- Very low maintenance
- Low cost of ownership
- Flexible installation



# Technical data

<b>Specifications</b>		<b>Rating</b>	<b>Materials</b>
Type:	Near IR Diode Laser Spectroscopy	Power Supply: 24V DC range 18-32V DC	TU and RU: Stainless steel (ASTM 316)
Path length:	5-100 m	Power consumption: Max 20W.	
Self-test:	Continuous		
Calibration:	Factory set, no field calibration necessary		
Zero:	<+- 1% of full scale		
Repeatability:	<+- 1% of full scale		
Response time:	5 sec (adjustable)		
<b>Environmental conditions</b>		<b>Safety</b>	<b>Dimensions / weight</b>
Storage temperature:	-55 °C - 75 °C (-67°F - 167°F)	Laser class: Class 1M according to IEC 60825-1, eye safe	Footprint/weight: Ø 125mm x 250 mm/ (4.92" x 9.84") 5.5 Kg (12 lbs.) per TU or RU
Operating:	-40 °C - 65 °C (-40°F - 149°F)	CE: Certified	Optional junction box (technical data) Junction box: GRP / aluminum
Humidity (operational):	100% RH	EMC: Conformant with directive 2014/30/ EU	Footprint Junction box: 250 mm x 250 mm/ (9.84" x 9.84") 2.0 Kg (4.4 lbs. per Junction Box)
<b>Input/output</b>		<b>Approvals</b>	ATEX rating: II 2 G Ex e I IC T4/T5/T6
Standard:	4-20 mA source or sink, max load impedance 500 Ohm	CSA: Class I, Div. 2, (Canada only) B, C Groups and D, T4	
Options:	Ethernet	Protection classification: IP65 IEC 61508 SIL2 capability	
Fault signals:	Fault 1mA Beam Block 2 mA Warning 3 mA		

Gas	Detection limit (LDL)	Pathlength	Minimum Range
NH3	2 ppm * m	5-100 m	0-40 ppm * m
HF	0.1 ppm * m	5-100 m	0-1 ppm * m
CO	5 ppm * m	5-60 m	0-100 ppm * m
CH4	5 ppm * m	5-100 m	0-100 ppm * m
H2S	20 ppm * m	5-100 m	200 ppm * m

NEO Monitors reserve the right to change specifications without prior notice