# / LaserGas™ III OP Gas Detector




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

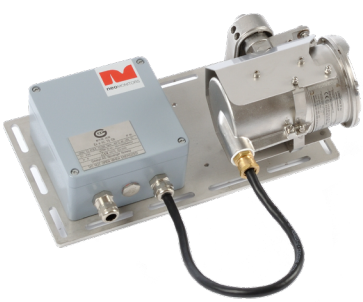
- Zone 1 Exd certified for operation in hazardous areas
- Suitable for use in SIL2 systems
- Compact footprint
- Automatic continuous system health check
- Low power requirements <15 watts
- Factory calibrated with no zero drift
- No interference from other background gases
- Low maintenance TDLAS measurement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

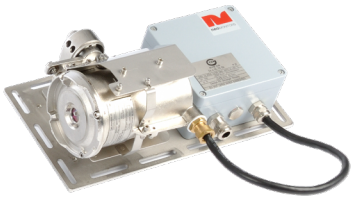
## Applications

- 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





neoMONITORS

# Technical data

**Specifications**

| | |
|---|---|
| Type: | Near IR Diode Laser Spectroscopy |
| Path length: | 5-100 m |
| 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) |

**Enviromental conditions**

| | |
|---|---|
| Storage temprature: | -55 °C - 75 °C (-67°F - 167°F) |
| Operating: | -40 °C - 65 °C (-40°F - 149°F) |
| Humidity (operational): | 100% RH |

**Input/output**

| | |
|---|---|
| Standard: | 4-20 mA source or sink, max load impedance 500 Ohm |
| Options: | Ethernet |
| Fault signals: | Fault 1mA<br>Beam Block 2 mA<br>Warning 3 mA |

**Rating**

| | |
|---|---|
| Power Supply: | 24V DC range 18-32V DC |
| Power consumption: | Max 20W. |

**Safety**

| | |
|---|---|
| Laser class: | Class 1M according to IEC 60825-1, eye safe |
| CE: | Certified |
| EMC: | Conformant with directive 2014/30/EU |

**Approvals**

| | |
|---|---|
| IECEx/ATEX zone 1: | II 2 G Ex db [op is Ga] IIC T4 Gb<br>II 2 D Ex tb [op is Da] IIIC T100 °C Db |
| CSA: Groups and D, T4 | Class I, Div. 2, (Canada only) B, C |

Protection classification: IP65

IEC 61508 SIL2 capability

**Materials**

| | |
|---|---|
| TU and RU: | Stainless steel (ASTM 316) |

**Optics**

| | |
|---|---|
| Alignment: | +/- 0.15 deg |
| Obscuration: | > 90% |

**Dimensions / weight**

| | |
|---|---|
| Footprint/weight: | Ø 125mm x 250 mm/<br>(4.92" x 9.84")<br>5.5 Kg (12 lbs.) per TU or RU |

Optional junction box (technical data)

| | |
|---|---|
| Junction box: | GRP / aluminum |
| Footprint Junction box: | 250 mm x 250 mm/<br>(9.84" x 9.84")<br>2.0 Kg (4.4 lbs. per Junction Box) |
| ATEX rating: | II 2 G Ex e I IC T4/T5/T6 |

| 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*

*PERFORMANCE YOU CAN TRUST*

www.neomonitors.com



neoMONITORS