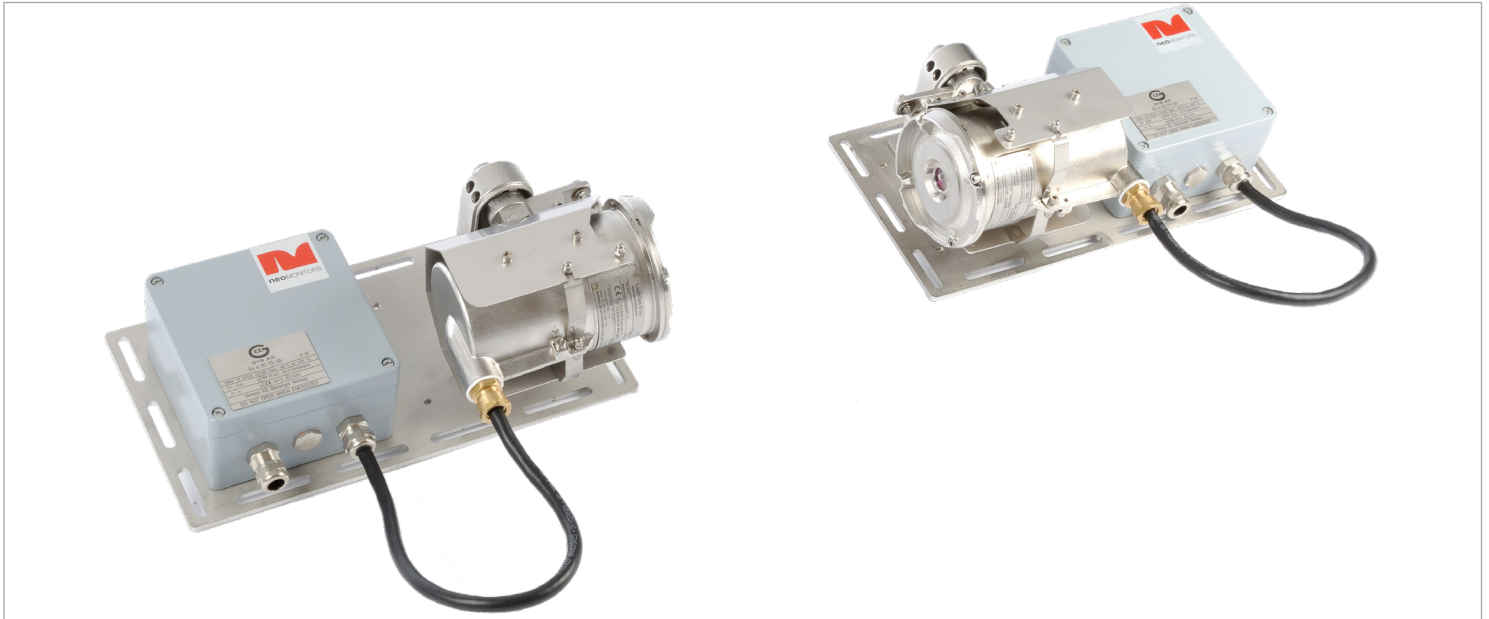


# LaserGas™ III OP NH<sub>3</sub> Gas Detector



All Rights Reserved, Copyright © June 2018, NEO Monitors AS

**NEO Monitors new LaserGas™ III NH<sub>3</sub> Open Path Gas Detector** is specifically designed for service in hazardous areas. Based on our third generation LaserGas™ Technology, the entire instrument is built into compact flameproof enclosures making it fit for zone 1 applications. The LaserGas™ III OP NH<sub>3</sub> consists of a transmitter and receiver unit that is mounted diametrically opposite each other at distances up to 100 meters. The laser light is sent from the transmitter to the receiver and any NH<sub>3</sub> concentration changes along the optical path from the transmitter to the receiver are detected in real-time.

## Features

- Gen. 3 compact LaserGas™ Technology
- For operation in zone 1 (Explosion proof, Ex-d)
- Automatic health check
- Low power < 15 Watt
- No need for regular replacement of parts
- No interference from other gases
- Factory calibrated, no zero drift

## Applications

- Open Path monitors are critical in emission monitoring across a wide range of industrial applications:
- Oil and gas industry
  - Petrochemical refineries
  - Chemical plants
  - Metal industry
  - Fenceline monitoring

## Customer benefits

- Compact high performance gas monitor for ambient long distance monitoring
- No cross interference from other gases
- Easy to install
- Limited need for maintenance
- Low cost of ownership
- Proven and reliable

# LaserGas™ III OP NH<sub>3</sub> Gas Detector

## Technical Data

|                                |   |                            |  |   |   |
|--------------------------------|---|----------------------------|--|---|---|
| <b>Specifications</b>          |   | <b>Input/output</b>        |  | <b>Materials</b>                              |   |
| Type:                          | Near IR Diode Laser Spectroscopy            | Standard:                  | 4-20 mA source or sink, max load impedance 500 Ohm     | TU and RU:                                    | Stainless steel (ASTM 316)                          |
| IR-source:                     | Diode laser Class1 M, eye safe              | Options:                   | Ethernet   | <b>Optics</b>                                 |   |
| Detected gas:                  | NH <sub>3</sub>                             | Fault signals:             | Fault 1mA<br>Beam Block 2 mA<br>Warning 3 mA           | Alignment:                                    | +/- 0.15 deg  |
| Range:                         | min.: 0 - 500 ppm*m                         | <b>Rating</b>              |  | Obscuration:                                  | > 90%   |
| Path lenght:                   | 5-100 m                                     | Power Supply:              | 24V DC range 18-32V DC                                 | <b>Dimensions / weight</b>                    |   |
| Self-test:                     | Continuous                                  | Power consumption:         | < 15W  | Footprint/weight:                             | Ø 125mm x 250 mm/<br>5.5 Kg (12 lbs.) per TU or RU  |
| Calibration:                   | Factory set, no field calibration necessary | <b>Safety</b>              |  | <b>Optional junction box (technical data)</b> |   |
| LDL:                           | 5ppm*m                                      | Laser class:               | Class 1 according to IEC 60825-1, eye safe             | Junction box:                                 | GRP / aluminum                                      |
| Zero:                          | <+/- 1% of full scale                       | CE:                        | Certified  | Footprint Junction box:                       | 250 mm x 250 mm/ 2.0 Kg (4.4 lbs. per Junction Box) |
| Repeatability:                 | <+/- 1% of full scale                       | EMC:                       | Conformant with directive 2014/30/EU                   | ATEX rating:                                  | II 2 G Ex e IIC T4/T5/T6                            |
| Response time:                 | 5 sec (adjustable)                          | <b>Approvals</b>           |  |   |   |
| <b>Enviromental conditions</b> |   | IECEx/ATEX zone 1: (TU/RU) | II 2 G Ex d [op is] IIC T6<br>II 2 D Ex tb IIIC T88 °C |   |   |
| Storage temperature:           | -55 °C to 75 °C                             | Ingress:                   | IP66/IP67 IEC 60529                                    |   |   |
| Operating:                     | -40 °C to 65 °C                             |                            |  |   |   |
| Humidity (operational):        | 100% RH                                     |                            |  |   |   |

\*NEO Monitors reserve the right to change specifications without prior notice

**Your local distributor:**



**neomonitors**

NEO Monitors AS • Part of the Nederman Group • Prost Stabells vei 22 • N-2019 Skedsmokorset, Norway  
Phone +47 67 97 47 00 • [www.neomonitors.com](http://www.neomonitors.com)