

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



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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	Applications	Customer benefits
<ul style="list-style-type: none"> <li>• Gen. 3 compact LaserGas™ Technology</li> <li>• For operation in zone 1 (Explosion proof, Ex-d)</li> <li>• Automatic health check</li> <li>• Low power &lt; 15 Watt</li> <li>• No need for regular replacement of parts</li> <li>• No interference from other gases</li> <li>• Factory calibrated, no zero drift</li> </ul>	<p>Open Path monitors are critical in emission monitoring across a wide range of industrial applications:</p> <ul style="list-style-type: none"> <li>• Oil and gas industry</li> <li>• Petrochemical refineries</li> <li>• Chemical plants</li> <li>• Metal industry</li> <li>• Fenceline monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Compact high performance gas monitor for ambient long distance monitoring</li> <li>• No cross interference from other gases</li> <li>• Easy to install</li> <li>• Limited need for maintenance</li> <li>• Low cost of ownership</li> <li>• Proven and reliable</li> </ul>

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## Technical Data

Specifications		Input/output		Materials	
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	Optics	
Detected gas:	NH <sub>3</sub>	Fault signals:	Fault 1mA Beam Block 2 mA Warning 3 mA	Alignment:	+/- 0.15 deg
Range:	min.: 0 - 500 ppm*m	Rating		Obscuration:	> 90%
Path length:	5-100 m	Power Supply:	24V DC range 18-32V DC	Dimensions / weight	
Self-test:	Continuous	Power consumption:	< 15W	Footprint/weight:	Ø 125mm x 250 mm/ 5.5 Kg (12 lbs.) per TU or RU
Calibration:	Factory set, no field calibration necessary	Safety		Optional junction box (technical data)	
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 I IC T4/T5/T6
Response time:	5 sec (adjustable)	Approvals			
Environmental conditions		IECEX/ATEX zone 1:	II 2 G Ex d [op is] IIC T6		
Storage temperature:	-55 °C to 75 °C	(TU/RU)	II 2 D Ex tb IIIC T88 °C		
Operating:	-40 °C to 65 °C	Ingress:	IP66/IP67 IEC 60529		
Humidity (operational):	100% RH				

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

Your local distributor:



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