

LaserGas™ Q NO₂



All Rights Reserved, Copyright © May 2016, NEO Monitors AS

NEO Monitors LaserGas™ Q NO₂ is using Tuneable Laser Absorption Spectroscopy (TLAS) i.e a non-contact optical measurement method employing solid-state laser sources. The sensor remains unaffected by contaminants corrosives and does not require regular maintenance. The absence of extractive conditioning systems further improves availability of the measurements and eliminates errors related to sample handling. The monitor is mounted directly onto flanges, which include purge gas connections and a tilting mechanism for easy alignment. Continuous purge flow prevents dust and other contamination from settling on the optical windows. Once power and data lines are connected, measurements are performed in real-time.

Features

- Response time down to 1 second
- No gas sampling: In-situ measurement
- No interference from background gases
- Line measurement, integral concentration over the full stack diameter
- Integrated span check option available
- Suitable for harsh environment
- No zero drift
- Stable calibration

Applications

LaserGas™ Q NO₂ is designed for reliable and fast measurement of nitrogen dioxide, combustion process control, DeNO_x and safety and emission monitoring applications.

Customer benefits

- In-situ monitoring
- Highly reliable real time analyzer
- Low maintenance cost
- Reduce emission to the environment
- Easy to install and operate
- Reduce daily operation costs
- Optimize process
- Well proven measurement technique

LaserGas™ QNO₂

Technical Data

Specifications Optical path length: Typically 0.5-6 m Response time: 1 – 2 sec Accuracy: Application dependent Repeatability: 1% of range (gas & application specific) Min range NO ₂ : 0 - 50 ppm Max range NO ₂ : 0 - 1000 ppm*m Detection limit: < 1ppm Temperature: Ambient to 450 °C Pressure: 0.7 - 1.5 bar abs Windows material: CaF ₂	Ratings Input power supply unit: 100 – 240 VAC, 50/60 Hz Output power supply unit: 24 VDC, 900 – 1000 mA Input transmitter unit: 18 – 36 VDC, max. 20W 4 – 20 mA output: 500 Ohm max. isolated Relay output: 1 A at 30 V DC/AC Installation and Operation Flange dimension alignment: DN50/PN10 or ANSI 2"/150lbs (other dimensions on request) Alignment tolerances: Flanges parallel within 1.5° Purge flow: Dry and oil-free pressurised air or nitrogen 10 - 50 l/min (application dependent)	Safety Laser class: Class 1 according to IEC 60825-1 CE: Certified EMC: Conformant with directive 2014/30/EU ATEX: PENDING CSA: PENDING Dimension and weight Transmitter unit: 420 x 270 x 170 mm, 6.6 kg Receiver unit: 265 x 270 x 170 mm, 5.7 kg Power supply unit: 180 x 85 x 70 mm, 1.6 kg
Environmental conditions Operating temperature: -20 °C to +55 °C Storage temperature: -20 °C to +55 °C Protection classification: IP66	Maintenance Visual inspection: Recommended every 6 – 12 months Calibration: Check recommended every 12 months Validation: In-situ span check with optional internal cell (application dependent)	
Inputs / Outputs Analog output (3): 4 - 20 mA current loop (concentration, transmission) Digital output: TCP/IP, MODBUS Relay output (3): High gas, Maintenance Warning and Fault Analog input (2): 4 – 20 mA process temperature and pressure reading		

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

Your local distributor:



NEO Monitors as • A subsidiary of Norsk Elektro Optikk

Prost Stabels vei 22 • N-2019 Skedsmokorset, Norway • Phone +47 67 97 47 00 • www.neomonitors.com