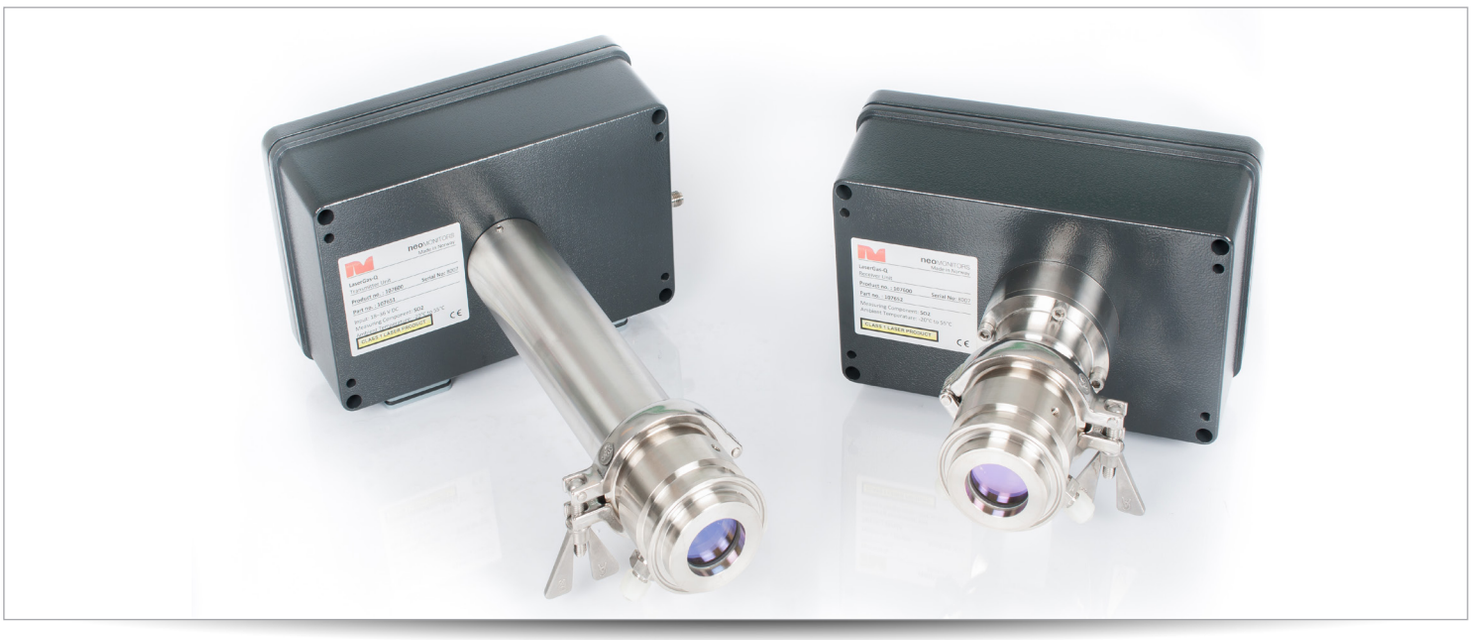
LaserGas™ Q SO_2



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NEO Monitors LaserGas™ Q SO_2 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 SO_2 is designed for reliable and fast measurement of sulfur dioxide in all kinds of emission control 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

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LaserGas™ Q SO_2

Technical Data

Specifications

Optical path length:	Typically 0.5-6 m
Response time:	1 – 2 sec
Accuracy:	Application dependet
Repeatability:	1% of range (gas & application specific)
Range SO_2:	0 - 10000 ppm*m
Detection limit:	3 ppm
Temperature:	Ambient to 400 °C
Pressure:	0.7 - 1.3 bar abs
Windows material:	CaF_2

Environmental conditions

Operating temperature:	-20 °C to +55 °C
Storage temperature:	-20 °C to +55 °C
Protection classification:	IP66

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

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)

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)

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

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

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