LaserGas™ iQ²

NEO Monitors LaserGas™ iQ² analyzer is the first to measure up to four gases (O_2, CO, CH_4, H_2O)** and temperature depending on configuration, which eliminates the need for multiple units for combustion analysis.
The cutting-edge design and ground-breaking functionality, ensures that the instrument delivers unmatched reliability and durability. By providing an optional single flange solution, installation cost can be significantly reduced. Customers may replace existing analyzers where explosion risks or high maintenance issues are a huge concern.

Features

- No interference from background gases
- Factory calibrated
- No zero drift
- Transceiver configuration
- Multiple configurations
- Designed for 3 configurations – cross stack, one-flange with probe and open path
- Automatic gain
- In-situ measurement
- Integrated span check option (Application dependent)

Applications

- Combustion analysis
- FCC units
- Package boilers
- Process heaters
- Electrostatic precipitators
- VCM waste gas recovery
- Reformer gas
- Incineration

Customer benefits

- Up to 5 measuring components O_2, CO, CH_4, H_2O and temperature
- Can handle a typical combustion process up to 2372 °F/1300°C
- Reduced installation cost
- Low maintenance cost
- Easy to install transceiver, one unit ensures easy alignment
- Double path length increases absorption signal for low concentration
- Transceiver can be mounted on coldest side of stack in extreme hot environments
- Well proven technology
- The design has flexibility to measure new/other gases and combinations of them

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LaserGas™ iQ²

Technical Data

Specifications

Max. process gas temprature: 1300 °C

Max. process gas pressure: 1.5 bar

Optical path length: max 20m

Response time: 5 seconds

Environmental conditions

Operating temperatures: -40 °C - +55 °C

Storage temperature: -40 °C to +70 °C

Protection classification: IP66

NEMA 4X **(PENDING)**

Input/output

Analog output: 4 - 20 mA current loop

Digital output: Ethernet (TCP/IP)

Relay output (4): High gas, warning and fault (normally closed)

Analog input (2): 4 - 20 mA Process temperature and pressure reading

Ratings

Power supply: 24 VDC (18 - 30 VDC)

Power consumptions: max 30W

4 - 20 mA: 500 Ohm max isolated

Relay output: 1 A at 30 V DC/AC

Safety

Laser class: Class 1 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 pxb [op is] IIC T6 Gb

II2 D Ex pxb [op is] IIIC T85 °C Db

CSA: Class I Div. 2, **(PENDING)**

ATEX rating connection box: II 2 GD Ex e IIC T5 Gb -40°C ≤Ta≤65°C

Installation and operation

Flange dimension: DN 80/PN 10-40 (Center Ø 3") or ANSI 3" #150 (#300) (Center Ø 3") ANSI 4" #300

Instrument purge: Application dependent N_2 or air

Probe purge (Optional): Nitrogen

Calibration: Every 12 months

Dimensions / weight

Transceiver: 461 x 399 x 174 15 kg

LaserGas™ iQ² X-stack O2 + CO ppm Standard (below 500 °C)

	Min	Max	LDL/precision
CO	0-100ppm	0-10000ppm*m	1 ppm
O2 (N2 purge)	0-2%	0-25%	0.02%
O2 (Air purge)	-	0-25%	0.2%
Process path length	0.5m	20m	
Process temperature	-40 °C	500 °C	
Process pressure	0.7 BarA	1.5 BarA	
CH4 add-on	0-1%*meter	0-5%*meter	0.01%
Temperature add-on (N2purge)	-40 °C	500 °C	15 °C

LaserGas™ iQ² X-stack O2 + CO ppm High temperature (above 500 °C)

	Min	Max	LDL/precision
CO Range	0-200ppm	0-20000ppm*m	3 ppm
O2 (N2 purge)	0-5%	0-25%	0.05%
O2 (Air purge)	-	0-25%	0.2%
Process path length	0.5m	20m	
Process temperature	500 °C	1300 °C	
Process pressure	0.7 BarA	1.5 BarA	
CH4 add-on	0-5%*meter	0-10%*meter	0.05%
H2O add-on	-	0-40%	2%
Temperature add-on	500 °C	1300 °C	30 °C
Temperature add-on (N2 purge)	-40 °C	1300 °C	20 °C

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

*** Some configurations may not be available in certain countries.*

Contact NEO Monitors AS for more information.

Your local distributor:

neoMONITORS

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