LaserGas™ iQ²





NEO Monitors LaserGas™ iQ² analyzer is the first to measure up to four gases (O₂, CO, CH₄, H₂O)** 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 Applications Customer benefits • No interference from background gases • Combustion analysis • Up to 5 measuring components 0₃, CO, CH₄, H₂O and temperature Factory calibrated • FCC units • Can handle a typical combustion process No zero drift • Package boilers up to 2372 °F/1300°C • Transceiver configuration • Process heaters Reduced installation cost • Multiple configurations • Electrostatic precipitators Low maintenance cost • Designed for 3 configurations – cross • VCM waste gas recovery • Easy to install transceiver, one unit stack, one-flange with probe and open Reformer gas ensures easy alignment Incineration • Double path length increases absorption • Automatic gain signal for low concentration • In-situ measurement • Transceiver can be mounted on coldest • Integrated span check option side of stack in extreme hot environments (Application dependent) Well proven technology • The design has flexibility to measure new/ other gases and combinations of them

LaserGasTM 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

Storage temperature:

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

Protection classification: IP66

NEMA 4X (PENDING)

-40 °C to +70 °C

Input/output

Analog input (2):

Analog output: 4 - 20 mA current loop

Digital output: Ethernet (TCP/IP)

Relay output (4): High gas, warning and

ault

(normally closed)

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

N₂ 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 + C0 ppm Standard (below 500 °C)

	Min	Max	LDL/precision
СО	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

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

Contact NEO Monitors AS for more information.

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

Your local distributor:







^{**} Some configurations may not be available in certain countries.