

GasEye Cross Duct SO₂/CO/NO- *in-situ* SO₂/CO/NO analyzer



GasEye SO₂/CO/NO is a high performance *in-situ* combined sulfur dioxide/carbon monoxide/nitric oxide analyzer. Suitable for safety applications and process control. 24/7 continuous operation. One flange pair. No sample preparation. No zero drift. No field calibration. Low cost of ownership.

Features

- SO₂ ranges from **0-100 ppm**
- CO ranges from **0-10 ppmv / 0-1000 ppmv 0-1%/ 0-100%**
- NO ranges from **0-100 ppm**
- Process temperatures **0-500°C**
- Process pressures **0.9-1.1 bar**
- **Real time sensing** – response time below 0.2 second
- **High sensitivity** – detection limit below 0.05 ppm per meter
- **In-situ monitoring** – direct in the process, no sample preparation
- **Maintenance free** – equipped with a self-calibrating feature, no field calibration required
- Robustness – IP65 enclosure
- Insensitive to dust and smoke in the measured process (up to 50 g/m³)
- ATEX version available

Example Applications

- **Combustion control**
- **Process control**

Example Industries

- Power industry
- Chemical industry

Application type: SO₂/CO/NO CD 61.21.35-AAA

Analytical performance

SO₂/CO/NO minimum measurement range: 0-100ppm/0 – 1000ppm/0-100ppm

LOD: SO₂/CO/NO: 5/0.2/1 ppm*m @STP and 3 sec response time

Precision: SO₂/CO/NO: 5/0.2/1 ppm*m or 1% of the measured value, whichever is larger @STP and 3 sec response time

Accuracy: SO₂/CO/NO: 5/0.3/1 ppm*m or 2% of the measured value, whichever is larger @STP and 3 sec response time

Process dust load: up to 50 g/Nm³ depending on the process

Calibration: Certified span gas

Zero drift and span drift: negligible

Electric characteristics

Power input: 24 VDC nominal (19.5 - 30 VDC)

Power consumption: < 35VA

Dynamic performance

Warm-up time: approx. 5 minutes

Minimum response time (T₉₀): 200 milliseconds

Electric inputs and outputs

Inputs:

4 x analog input, (4-20 mA, process temperature and pressure, 2 x AUX) - easy user selection via DIP switch between active/passive mode

1 x RTD

8 x Digital input

Outputs:

4 x analog output, (4-20 mA, SO₂ concentration, CO concentration, NO concentration, process transmission) active or passive - easy user selection via DIP switch between active/passive mode

8 x Digital output (NAMUR)

Optional:

PROFINET , Modbus (TCP/IP)

Local User Interface:

1. Local user interface (LUI) – LCD backlight display located on the transmitter housing lid.
2. Ethernet
 - WebServer application – system configuration and data acquisition via webbrowser
 - Windows based program – GasEye logger for real time data acquisition

Remote access:

Ethernet port for remote service and diagnostics

Mechanical specification

Degree of protection: In accordance with IP65

Process flange: DN50

Process windows: Sapphire window, Helium leak tested and certified in accordance to EN1779:1999 norm.

Instrument dimensions:

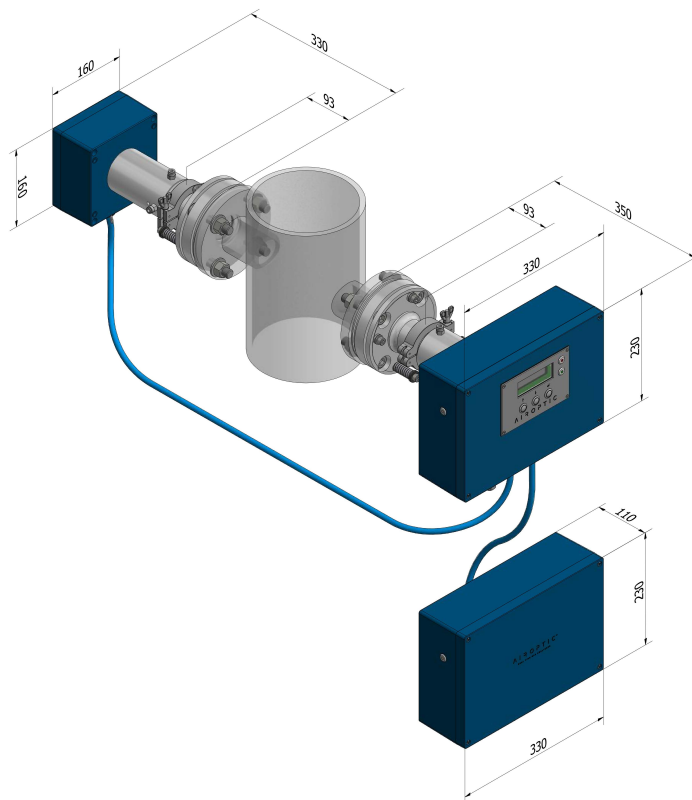
Transmitter W x H x L: 330 mm x 230 mm x 350 mm

Receiver W x H x L: 160 mm x 160 mm x 330 mm

Central unit W x H x L: 330 mm x 230 mm x 110 mm

Weight: Receiver unit (including flange): 13 kg
 Transmitter unit(including flange): 16 kg
 Central unit: 5 kg

Materials: Housing: aluminium
 Coating: RAL5017
 Process interface: Stainless steel 316



Climatic conditions

Ambient temperature:	-20°C	to	+45°C
Ambient pressure:	800 - 1200 hPa		
Ambient humidity:	RH < 99%, non-condensing		

Measurement conditions

Sample gas pressure:	0.9 -1.1 atm
Sample gas temperature:	0°C to 500 °C

Sensor and Process Purging (Nitrogen)

Purging gas flow rate:	5 – 50 l/min
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Safety

Low Voltage Directive (LVD) 2014/35/EU



CLASS 1
LASER PRODUCT

- PN-EN 61010-1:2011
- Laser radiation: Laser Class I product acc. to PN-EN 60825-1:2014-11

EMC Directive 2014/30/EU

- EN 61326-1:2013

RoHS Directive 2011/65/EU

ATEX Directive 2014/34/EU

- Explosion protection (standard version):
 - ATEX II 3G [Ex op is IIC T6 Gc]
 - ATEX II 3D [Ex op is IIIC T85°C Dc]
- Explosion protection (optional version):
 - ATEX II 3G Ex pz op is IIC T6 Gc
 - ATEX II 3D Ex pz op is IIIC T85°C Dc

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