

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



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

### Features

- NO ranges: 0 – 50ppmv / 0 – 50vol%
- SO2 ranges: 0 – 100ppmv / 0 – 50%vol
- CO ranges from 0 – 10ppmv / 0 – 1000 ppmv/ 0 – 1vol% / 0 – 100vol%
- Process temperatures 0 – 550°C
- Process pressures 0.7 – 2 barA
- **Real time sensing** – response time below 0.2 second
- **High sensitivity** – detection limit below 0.05ppm 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, suitable for outdoor and indoor installations and harsh environments
- **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: NO/SO<sub>2</sub>/CO CD 35.61.21\_FLSP-AAA

### Analytical performance

**NO/SO<sub>2</sub>/CO measurement range:** 0-500mg/Nm<sup>3</sup> / 0-1500mg/Nm<sup>3</sup> / 0-1000mg/Nm<sup>3</sup>

**Detection limit:** 1mg/Nm<sup>3</sup> / 10mg/Nm<sup>3</sup> / 1mg/Nm<sup>3</sup> @STP and 3 sec response time

**Precision:** LOD or 1% of the measured value, whichever is larger @STP and 3 sec response time

**Accuracy:** LOD or 2% of the measured value, whichever is larger @STP and 3 sec response time

**Process dust load:** up to 50 g/Nm<sup>3</sup> 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 (T<sub>90</sub>):** 200 milliseconds

### Electric inputs and outputs

#### Input:

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, NO concentration, SO<sub>2</sub> concentration, CO 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:

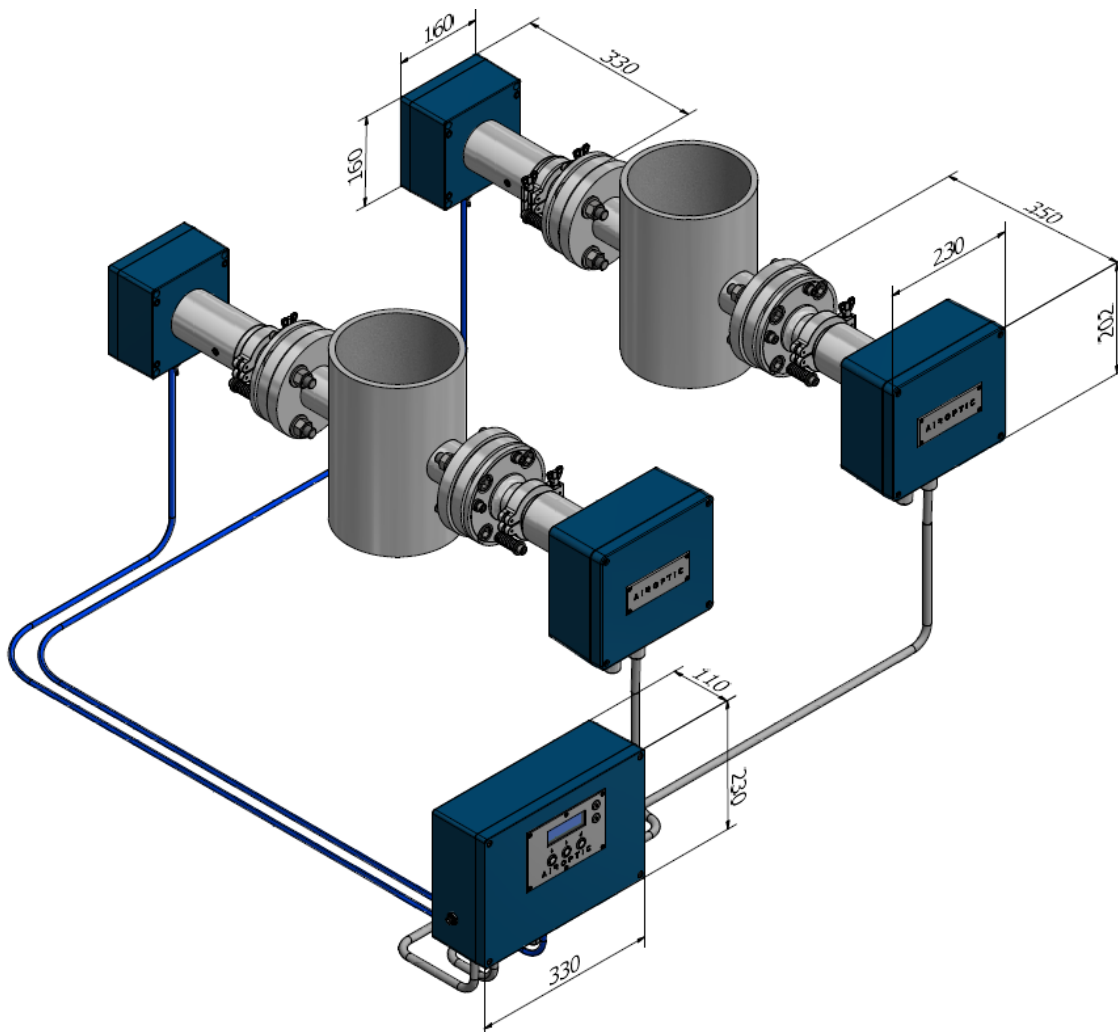
**Transmitter** W x H x L: 330 mm x 230 mm x 350 mm

**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: aluminum  
 Coating: RAL5010  
 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:	250°C to 350 °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



- 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

## Direct Sales Office:

Airoptic Sp. z o.o.

Ul. Rubiez 46 B, 61-612 Poznan, Poland

[sales@airoptic.pl](mailto:sales@airoptic.pl)

tel. +48 61 6272 128