

# GasEye Cross Duct SO<sub>2</sub>/HCl/CO- *in-situ* SO<sub>2</sub>/HCl/CO analyzer



GasEye SO<sub>2</sub>/HCl/CO is a high performance *in-situ* combined sulfur dioxide/hydrogen chloride/carbon monoxide 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

- SO<sub>2</sub> ranges from **0-100 ppm**
- HCl ranges **from 0-10 ppm**
- CO ranges **from 0-10 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/m<sup>3</sup>)
- ATEX version available

## Example Applications

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

## Example Industries

- Power industry
- Chemical industry

## Application type: SO<sub>2</sub>/HCl/CO CD 614121.01.01-AAA

### Analytical performance

**SO<sub>2</sub>/HCl/CO minimum measurement range:** 0-100ppm/0 – 10ppm/0-10ppm

**LOD:** SO<sub>2</sub>/HCl/CO: 5 /0.08/0.2 ppm\*m @STP and 3 sec response time

**Precision:** SO<sub>2</sub>/HCl/CO: 5/0.08/0.2 ppm\*m or 1% of the measured value, whichever is larger @STP and 3 sec response time

**Accuracy:** SO<sub>2</sub>/HCl/CO: 5 /0.08/0.2 ppm\*m 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 -

**Power consumption:** 30 VDC) < 35VA

### Dynamic performance

**Warm-up time:** approx. 5 minutes

**Minimum response time (T<sub>90</sub>):** 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, SO<sub>2</sub> concentration, HCl 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:

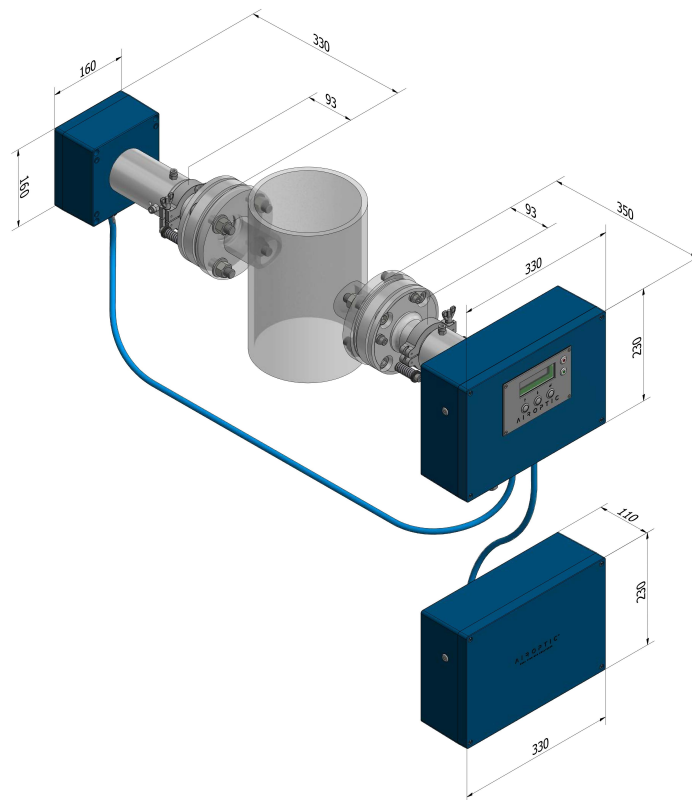
**Transmitter** W x H x L: 330 mm x 230 mm x 350 mm

**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

## Direct Sales Office:

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