

## GasEye Cross Duct SO<sub>2</sub>/H<sub>2</sub>S - *IN-SITU* SULFUR DIOXIDE AND HYDROGEN SULFIDE



GasEye SO<sub>2</sub>/H<sub>2</sub>S is a high performance *in-situ* combined sulfur dioxide and hydrogen sulfide 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:** 0 – 200 ppmv / 0 – 50 % vol
- **H<sub>2</sub>S ranges:** 0 – 10 ppm / 0 – 100%vol
- Process temperatures **0-550°C**
- Process pressures **0.7 – 2 barA**
- **Real time sensing** – response time below 0.1 second
- **High sensitivity** – detection limit below 1ppm per meter
- ***In-situ* monitoring** – direct in the process, no sample preparation
- **Maintenance free** – equipped with a self-calibrating feature, no field calibration necessary
- **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/m<sup>3</sup>
- **ATEX** version available

### Example Applications

- Claus process
- Desulfurization (deSO<sub>x</sub>) process
- Emission monitoring
- Combustion optimization

### Example Industries

- Power industry
- Pulp and paper industry
- Cement

**Application type: SO<sub>2</sub>/H<sub>2</sub>S CD 63.75.01-AAA****Analytical performance****SO<sub>2</sub>/H<sub>2</sub>S measurement range:** 0 – 2 vol% / 0 – 2 vol%**LOD:** 0.04 vol%\*m / 0.01 vol%\*m @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****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, H<sub>2</sub>S concentration, process transmission, 1 x AUX) active or passive - easy user selection via DIP switch between active/passive mode

8 x Digital output (NAMUR)

**Optional:**

PROFINET, Modbus (TCP/IP), Modbus RTU, Profibus

**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/PN16

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

**Instrument dimensions:**

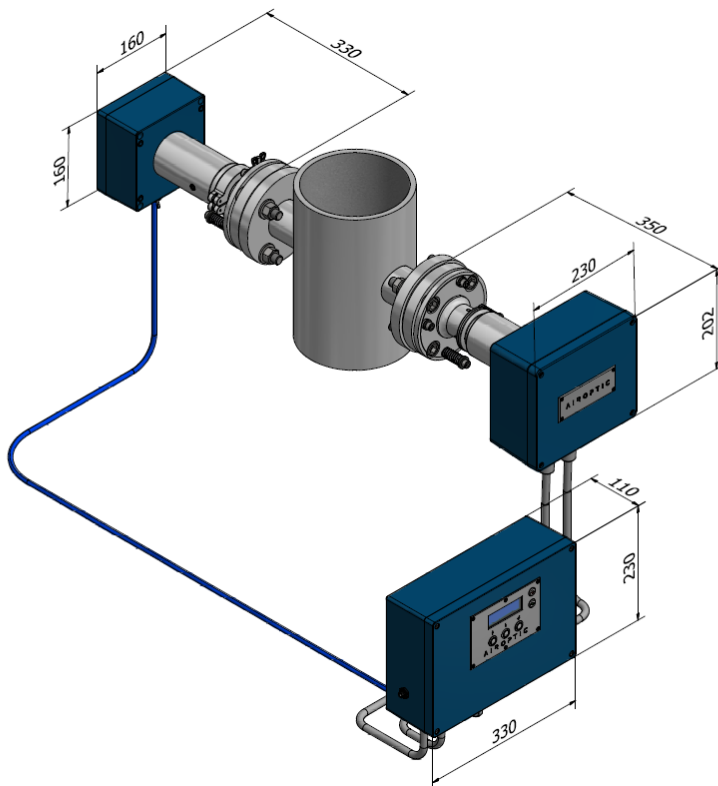
**Transmitter** W x H x L: 330 mm x 230 mm x 350 mm

**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: RAL5010  
 Process interface: Stainless steel 316



**Climatic conditions**

<b>Ambient temperature:</b>	-20°C to +55°C
<b>Ambient pressure:</b>	800 - 1200 hPa
<b>Ambient humidity:</b>	RH < 99%, non-condensing

**Measurement conditions**

<b>Sample gas pressure:</b>	0.7 - 2 barA
<b>Sample gas temperature:</b>	0°C to 550 °C

**Process Purging (if necessary)**

<b>Purging gas flow rate:</b>	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

- EN IEC 60079-0:2018
- EN 60079-2:2014
- EN 60079-26:2015
- EN 60079-28:2015



II (1)/2G Ex pxb [op is Ga] IIC T6 Gb  
II (1)/2D Ex pxb [op is Da] IIIC T85°C Db

Certificate No. KDB 20ATEX0003X

IECEx Zone 2/22

- EN IEC 60079-0:2017
- EN 60079-2:2014
- EN 60079-28:2015



Ex op is pzc IIC T6 Gc  
Ex op is pzc IIIB T85°C Dc

Certificate No. IECEx KDB 19.0004X

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