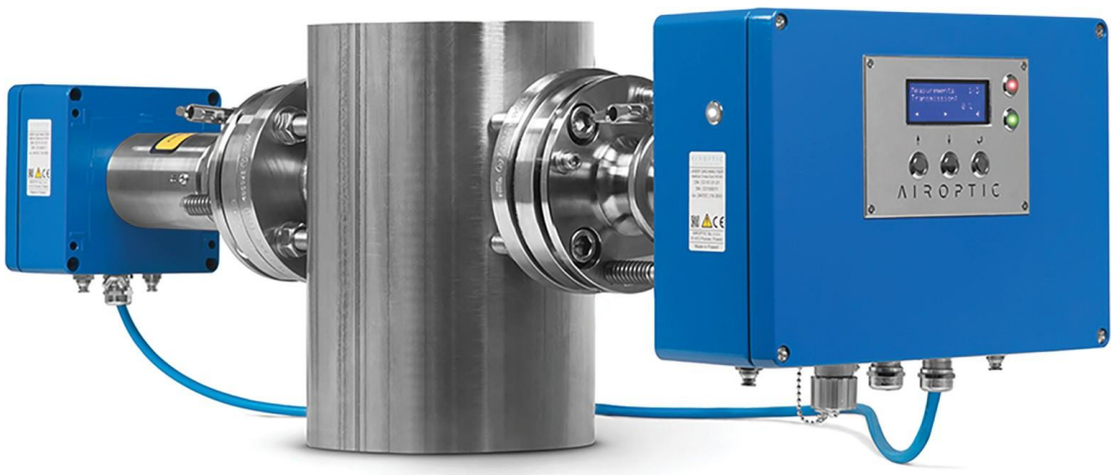
GasEye Cross Duct SO2 - *in-situ* sulfur dioxide analyzer



GasEye SO2 is tunable laser sulfur dioxide analyzer. Suitable for emission monitoring and process control. 24/7 continuous operation. No sample preparation. No zero drift. No field calibration. Low cost of ownership.

Features

- SO2 range **0-1000 mg/m3**
- Process temperature **0-200 °C**
- **Real time sensing** – response time below 0.1 second
- **High selectivity** – no interference from other constituents in the gas sample
- **High sensitivity** – detection limit below 10 mg/m3 per meter in hot and moist process
- ***In-situ* monitoring** – reliable and representative method
- **Maintenance free** – equipped with a self-calibrating feature, no field calibration necessary

- **Robustness** – IP65 enclosire, 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
- Emission monitoring

SULFUR DIOXIDE ANALYZER

AIROPTIC™
REAL TIME GAS ANALYZERS

TECHNICAL SPECIFICATION

Application type: Sulphur dioxide CD 61.01.01_AAA

Analytical performance

Sulphur dioxide concentration measurement range: 0 – 1000 mg/Nm3
Detection limit: 10mg/Nm3 @175 ºC and 3 sec response time
Precision: 10mg/Nm3 @175 ºC or 1% of the measured value, whichever is larger
Accuracy: 10mg/Nm3 @175 ºC ppm*m or 2% of the measured value, whichever is larger
Process dust load: up to 50 g/Nm3 depending on the process
Calibration: Factory calibration using certified gas sample
Zero drift and span drift: negligible

Electric characteristics

Power input: 24 VDC nominal (19.5 - 30
Power consumption: VDC) < 20VA

Dynamic performance

Warm-up time: approx. 5 minutes
Minimum response time (T90): 100 milliseconds

Electric inputs and outputs

Inputs:

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

Optional:
PROFINET, Modbus (TCP/IP), Modbus RTU

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 web browser
    - Windows based program – GasEye logger for real time data acquisition

Remote access:
Ethernet port for remote service and diagnostics

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Mechanical specification

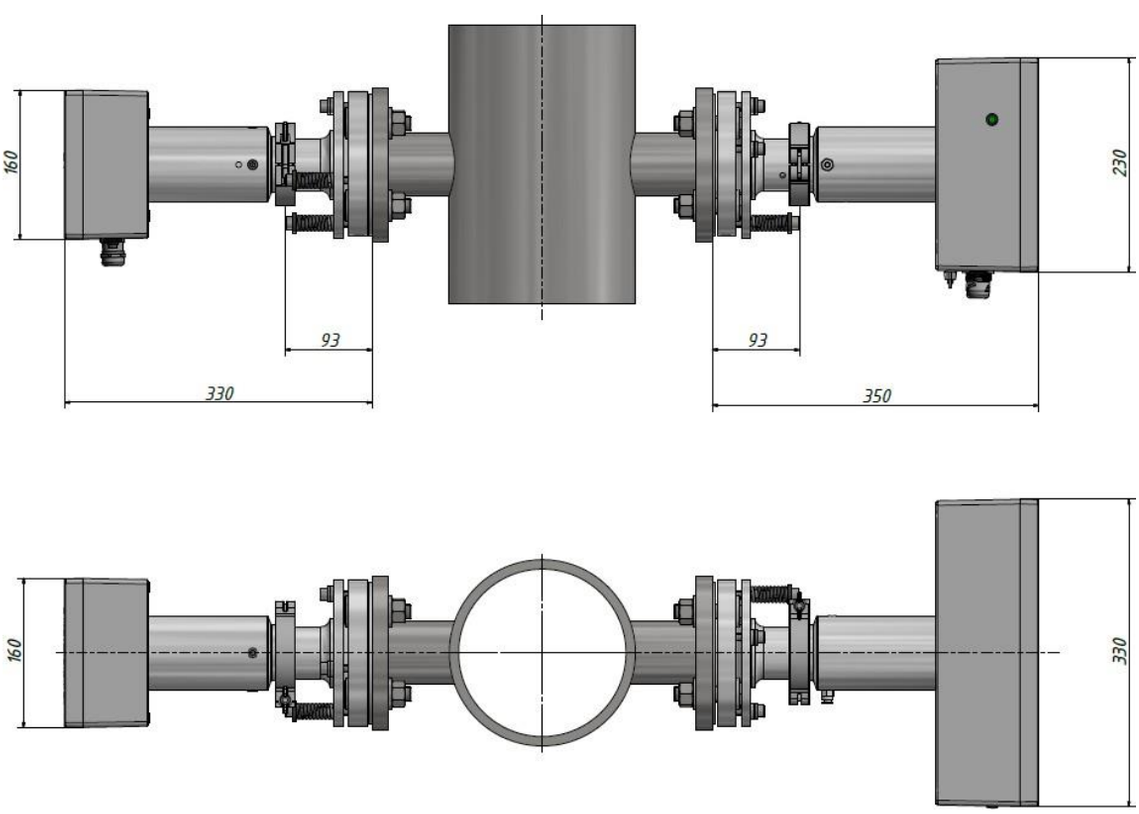
Degree of protection: In accordance with IP65

Process flange: DN50

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

Instrument dimensions:

Transmitter:	Width x height: 330 mm x 230 mm Length: 350 mm
Receiver:	Width x height: 160 mm x 160 mm Length: 330 mm
Weight:	Receiver unit: 15 kg Transmitter unit: 13 kg
Materials:	Housing**:** aluminium Coating: RAL 5017 Process interface: Stainless steel 316



TECHNICAL SPECIFICATION

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SULFUR DIOXIDE ANALYZER

Climatic conditions

Ambient temperature: -20ºC to +55ºC
Ambient pressure: 800 - 1200 hPa
Ambient humidity: RH < 99%, non-condensing

Measurement conditions

Sample gas pressure: 0.9 - 1.1 atm
Sample gas temperature: 0ºC to 200ºC

Process Purging (if necessary)

Purging gas flow rate: 5 – 10 l/min

Safety

Low Voltage Directive (LVD) 2014/35/EU

CE

- **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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