

# GasEye Cross Duct O2 SC- *IN-SITU* OXYGEN ANALYZER



GasEye Cross Duct O2 SC is a high performance *in-situ* oxygen analyzer with separated central unit (SC). 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

- **O2 ranges** from 0 – 1 vol% to 0 – 100 vol%
- **Process temperatures:** 0-1350°C
- **Real time sensing** – response time below 0.2 second
- **High selectivity:** automatic compensation for interference effect from other constituents in the gas sample
- **High sensitivity:** detection limit below 5 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, 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

- **Combustion control (boilers)**
- **Process control**
- **Safety monitoring**

## Example Industries

- **Power industry**
- **Chemical industry**
- **Steel industry**

O<sub>2</sub> ANALYZER

## Application type: O2 CD 11.01.01\_SC

### Analytical performance

**O2 concentration measurement range:** 0-10vol%

**Detection limit:** 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 (T90):** 1000 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, O2 concentration, process transmission, 1 x process temperature (optional). 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

#### 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 IP66

**Process flange:** DN50PN16

**Process windows:** Quartz 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

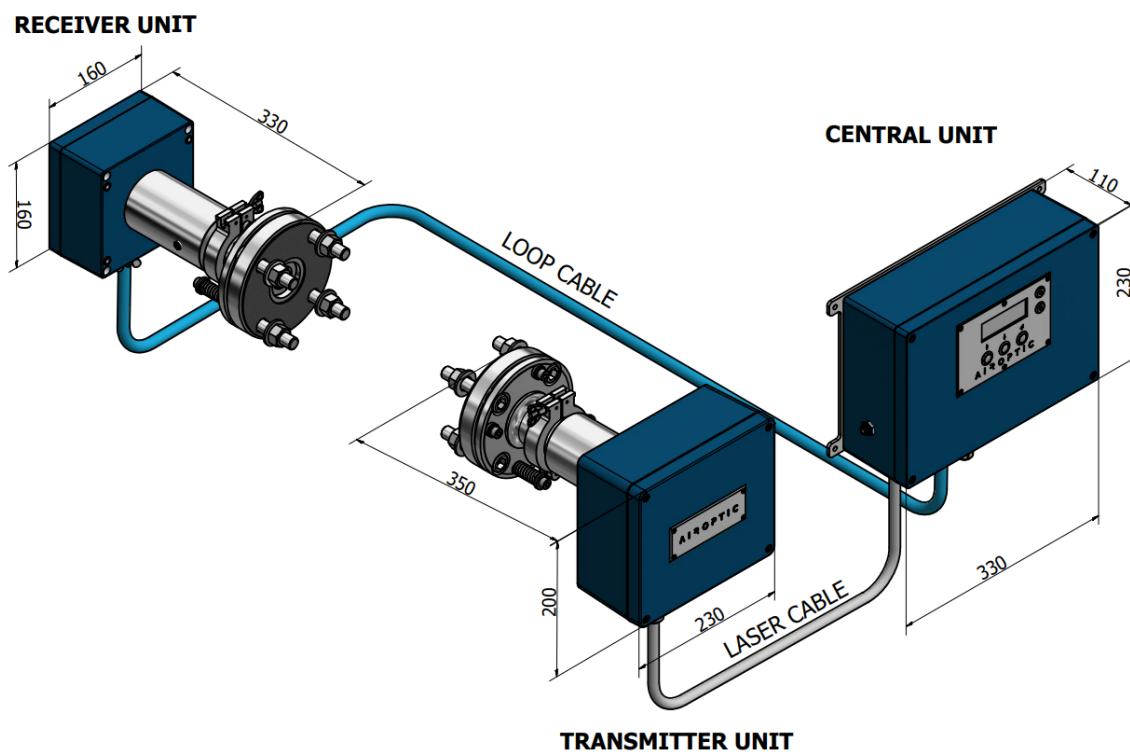
**Central unit** W x H x L: 330 mm x 230 mm x 110 mm

**Weight:** Receiver unit (including flange): 13 kg  
 Transmitter unit(including flange): 15 kg  
 Central unit: 5 kg

**Materials:** Housing: aluminium  
 Coating: RAL5010  
 Process interface: Stainless steel 316

**Loop Cable** 1 - 200 meters

**Laser Cable** 10 meters



**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>	0.9 -1.1 atm
<b>Sample gas temperature:</b>	0°C to 1350 °C

**Sensor and Process Purging  
(Nitrogen)**

<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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