

## > Duct CO2 sensors

### Sensors - air handling



#### Characteristics

- sensor for measurements in an air duct
- accurate, even in the long term
- easy installation

#### Specifications

General	
Article description	Duct CO2 sensor 0-10V
Article number	111252
Dimensions (XYZ)	80.6 x 101 x 46 mm
Weight	196 grams
Housing material	polycarbonate, UL94-V0 approved
Length of probe	200 mm
IP code of housing	IP65 NEMA 4
IP code of probe	IP20
Cable gland	M16 x 1.5
Supply voltage	24 VAC ± 20 % 15 ... 35 VDC
Power consumption	typ. 15 mA + output current max. 350 mA for 0.3 s
Minimum flow rate (recommended)	1 m/s
Electrical connection	screw connector max. 2.5 mm <sup>2</sup> (AWG14)
Output signal	0-10 V (-1 mA < I <sub>L</sub> < 1 mA)
Permissible ambient temperature during storage and use	-20 ... 60 °C
Permissible ambient relative humidity during storage and use	0 ... 95 % (non-condensing)

#### Usage

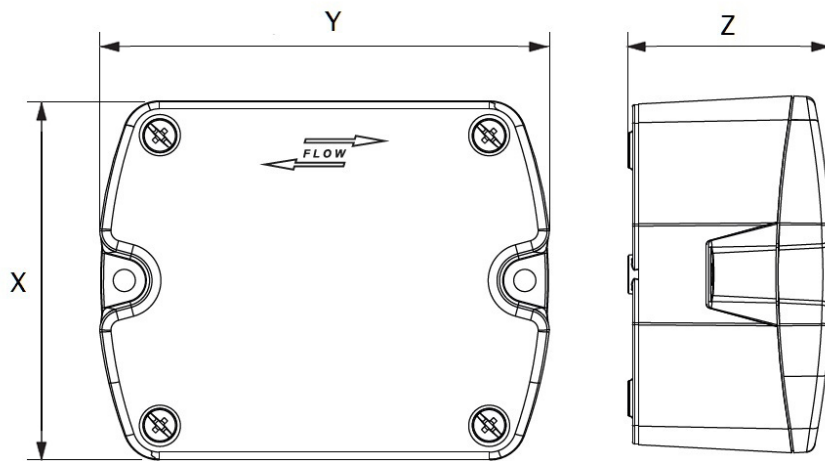
The sensor measures CO<sub>2</sub> in air ducts. Air from the air duct flows via the probe to the CO<sub>2</sub> measuring cell in the housing and then flows back to the air duct via the probe.

#### Accurate

The CO<sub>2</sub> measuring cell is based on Dual Wavelength Nondispersive Infrared (NDIR) technology, automatically compensates for ageing phenomena and is insensitive to contamination. This guarantees a high level of accuracy, even in the long term.


#### Easy installation

The probe is installed in the air duct with a mounting flange with rubber seal.

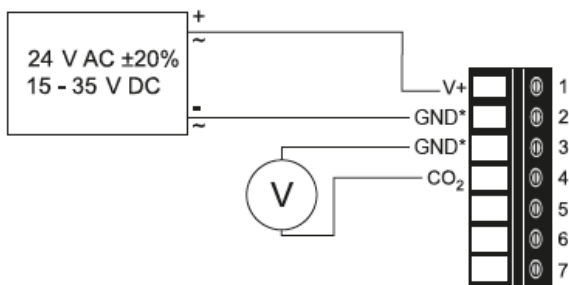


Measured value	
<b>CO<sub>2</sub></b>	
Measuring principle	Dual Wavelength Nondispersive Infrared (NDIR) technology
Measurement range	0 ... 2000 ppm
Accuracy at 25°C and 1013 mbar	50 ppm +2% of the measured value
Reaction time τ63	< 100 s at air speed of 3 m/s in an air duct
Temperature dependency	typ. 1 ppm CO <sub>2</sub> / °C (-20 ... 45°C)
Calibration interval <sup>1</sup>	>5 years
Sample rate	approximately 15 s

<sup>1</sup> Under normal operating conditions.

Regulations and standards		
Europe		<ul style="list-style-type: none"> <li>EN61326-1</li> <li>EN61326-2-3</li> </ul>
USA / Canada		FCC Part15 Class B ICES-003 Class 3

### Wiring diagram



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