



## Description

This sensor gives information concerning carbon dioxide (CO2) concentration levels, important element in air quality monitoring

A good indicator of proper ventilation in a space is the level of CO2, a natural by-product of respiration, combustion and other processes. Elevated levels of carbon dioxide can be an indication that additional ventilation or outdoor air may be needed. ASHRAE Standard 62 recommends that indoor levels not exceed roughly 700 ppm more than outside ambient conditions. Higher levels of CO2 may cause slight drowsiness, enhance odors or give the impression of stale air.

This DUCT sensor is suitable for all types of ducts as return ducts, diffusers, turns, transitions, etc...



## Features

- NDIR Dual, long life, reliability. No calibration required
- Suitable for all types of ducts and low air/flow velocities
- Air quality measurement in buildings

## Application Areas

- HVAC applications for building management
- dwellings
- Public and commercial buildings, retail, hotels, offices...

## Technical Specifications

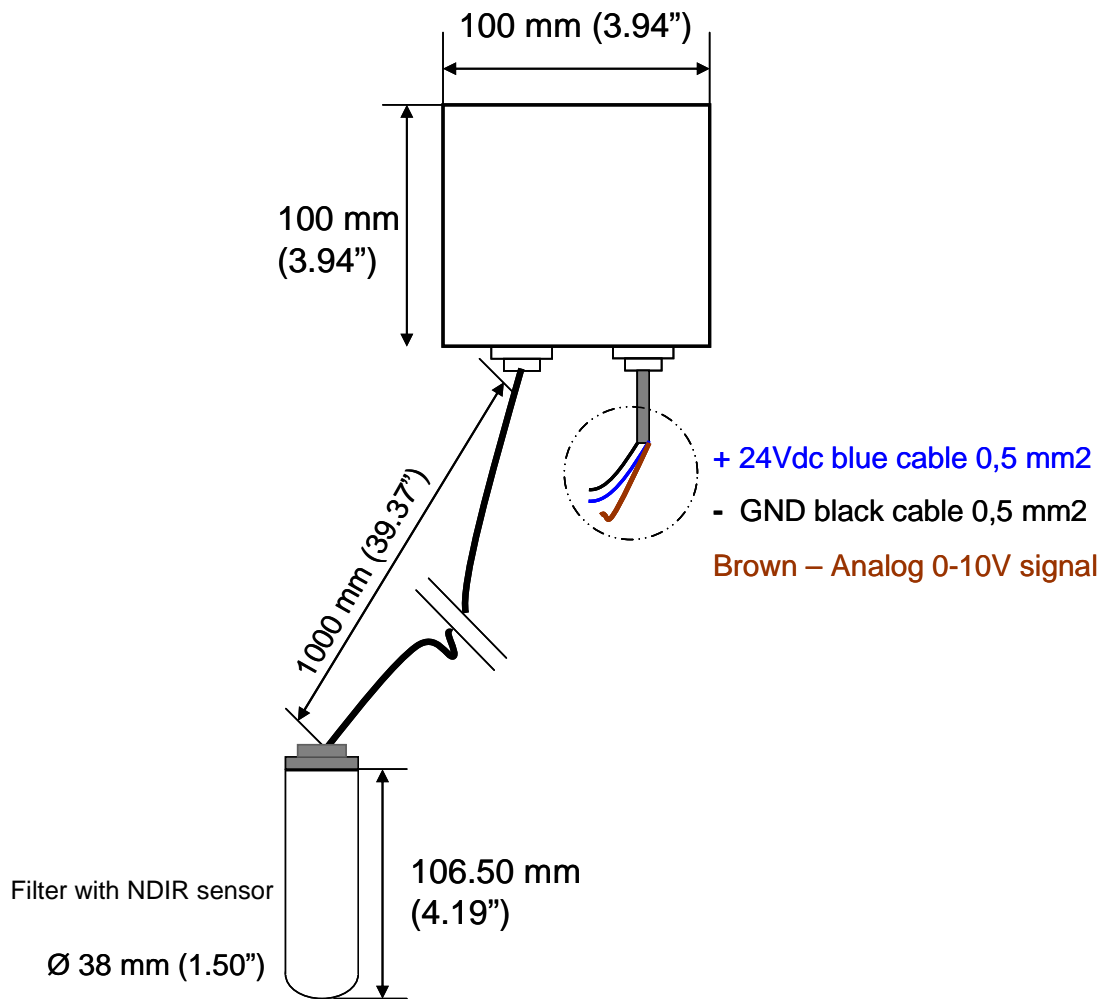
CO2 specification	
Measurement Principle	NDIR -Non dispersive infrared technology-
Sensor Type	<b>Dual Beam</b> Dual wavelength
Measurement Range	400 – 4000 ppm CO2 by volume
Resolution	< 20 ppm CO2
Accuracy	± 5% of reading
Pressure Dependence	0.13 % of reading per mm Hg
Response Time	< 3 minutes for a 90% step change
Warm up Time	< 30 seconds operational < 15 minutes full accuracy

Electrical Specifications	
Power supply	24 Vdc (7-28 Vdc)* 24Vac and 230Vac optionally
Power consumption	14-45 mW
OUTPUT	Analog 0-10v Linear 0ppm-0v/2000ppm-10v
Operating Temperature	0 ~ +40° C
Storage Temperature	-20 ~ + 50 °C
Operating Humidity	0 ~ 95% non-condensing
Electrical connection	3x cable 0.5 mm2

General Specifications	
Regulatory Compliance	CE Mark: EMC 2004/108/EC, RoHS 2011/65/EU, WEEE EN61000-6-2, EN61000-6-3
Casing Material	Fiberglass reinforced polycarbonate Filter: Polyethylene
IP Housing	IP66 –EN62208
IP Sensor Filter	IP54
Housing color	Grey RAL 7035
Dimensions box	100x100x60 mm (3.94x3.94x2.36")
Filter large	106.50 mm (4.19")
Weight	0.373 kg



## Installation Diagram – Cabling - Dimensions



### Accessories: Included

\* Other larges between filter/probe and housing box by requests

### Ordering Info Codes

Product Name	Reference	EAN-nr
NBB-ADCO2 CO2 Analogue Duct Sensor (400-2000ppm)	EN271101	8437013200165
NBB-AOCO2 CO2 Analogue Sensor for outdoor use (400-4000ppm)	EN025105	8437013200035
NBB-WOCO2 CO2 EnOcean 868MHz Outdoor sensor (400-2550ppm)	EN251103	8437013200233
NBB-MOCO2 CO2 MODBUS Sensor for outdoor use (400-4000ppm)	EN025606	8437013200097