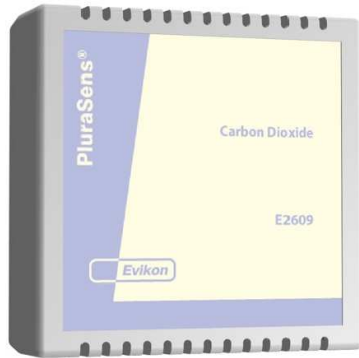0-10V | RS485 Modbus

# Carbon Dioxide Detector-Transmitter
E2609

Features

- Accurate and stable measurement
- Compact housing providing optimal airflow
- Relay for alarm / ventilation control
- Analog output 0-10 V
- RS485 Modbus RTU digital interface

Description

E2609 fixed Carbon Dioxide detector is a perfect device for air quality control and carbon dioxide accumulation prevention in the environment. Its compact size and optimal power intake make it mountable to almost any place in the building.

Easily configurable, E2609 is set by default to monitor CO_2 concentration in the range from 0 to 10000 ppm and to switch the built-in relay as soon as the gas concentration exceeds user adjustable set level. After the reading has dropped below the alarm release level, the relay returns to normal state. The built-in relay can be used to automatically turn on/off a fresh-air fan or ventilation systems.

With its ease of use, the E2609 is perfect for homes, offices, meeting rooms, or anywhere controlling indoor air quality is required to ensure the occupant's comfort.
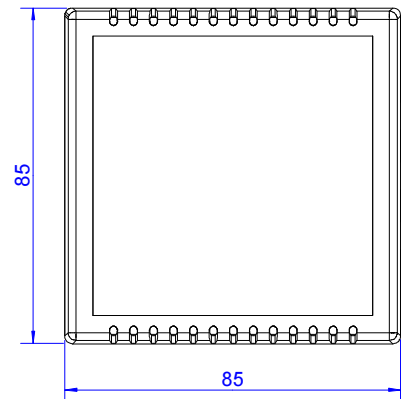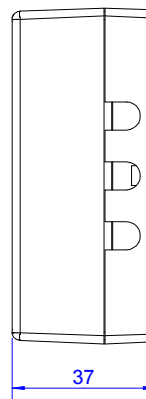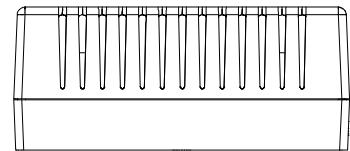
Specifications

Maintenance interval	no maintenance required
Self-diagnostics	complete function check of the sensor module
Warm-up time	≤ 1 min
Operating environment	residential, industrial and business indoor spaces
Power supply	24 VDC
Power consumption	1,5 W average, 4,5 W peak power
Analog output	0-10 V, linearized, configurable, Rout < 100 Ω, Rload > 5 kΩ
Digital interface	RS485 Modbus RTU
Relay	250 VAC / 30 VDC, 5 A max
Housing	slotted light gray ABS plastic
Dimensions	85 mm (H) x 85 mm (W) x 36 mm (D)
Measurement range	nominal 0...5000 ppm vol, max 10 000 ppm vol
Sensing method	non-dispersive infrared (NDIR) with automatic background calibration (ABC)
Sampling method	diffusion
Response time	20 seconds
Signal update	every 2 seconds
Sensitivity	±20 ppm ± 1% of measured value
Accuracy	±30 ppm ±3% of measured value
Pressure dependence	+1.6% reading per kPa deviation from normal pressure 100 kPa
Sensor life expectancy	> 15 years

Terminal Descriptions:
1 - linearized output 0-10 V
2 - ground
3, 4 - RS485 digital interface
5 - +24 VDC
6, 7 - relay contacts

ventilation / fan