CO_2 TRANSMITTER

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CO_2 TRANSMITTER

Overview

- Power Supply 24V AC or DC
- CO_2 Level 0 - 2000ppm
- Temperature 0 - 50°C
- Excellent Long Term Stability
- Snap-in Cover

Overview

149-DCV-CO2 is a room transmitter for measuring carbon dioxide levels in air with an output signal 0 - 10V DC.

Function

149-DCV-CO2 with patented auto calibration process set new standards in CO_2 measuring for HVAC applications. The sensor is mounted in the cover-part of the casing. The cover is easy to detach from the back by means of snap-in grips and detachable terminals. This makes mounting easier. Furthermore, no cables have to be disconnected, which simplifies service and replacement.

Applications

The CO_2 level gives a direct indication of the indoor air quality. With this basic information, the ventilation can be controlled with high precision and the air quality improved. At the same time, the supply air will only be increased when necessary and the energy costs will thereby be reduced. 149-DCV-CO2 is suitable in environments such as cinemas, schools, conference rooms, assembly halls etc.

Measuring Principle

The CO_2 concentration is measured by means of infrared light, a technique that measures the absorption in gases. It has a reference measuring system that compensates values in relation to changes in light intensity.

Advantages

- Very high accuracy
- Exact identification of detected gas
- Low risk for contamination
- Short response time
- High long term stability
- Long calibration interval (>5 years)

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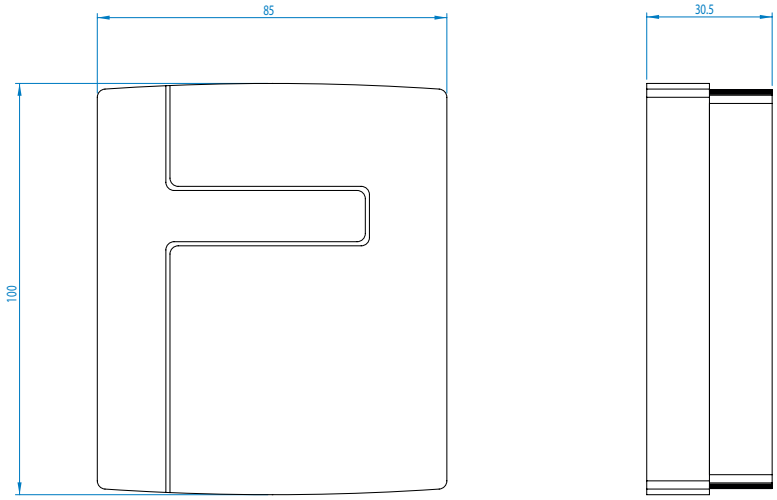
Technical Data

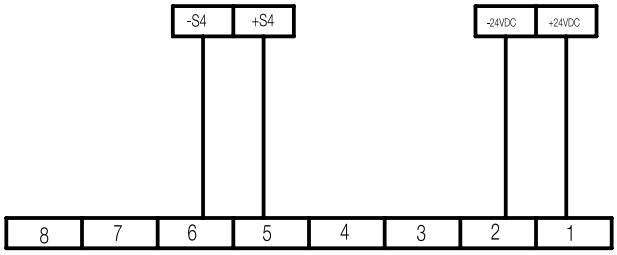
Product Code	Supply Voltage	Power Consumption W	Ambient Temperature °C	Ambient Humidity % RH	Temperature Dependance ppm CO_2/°C	Storage Temperature °C	Long Term Stability ppm/year
149-DCV-CO2	24V AC +/- 15%, 50/60Hz or 15/35V DC	3	-5 - +55	0 - 90 Not Condensating	typ. 5	-40 - 70	typ. 20
Product Code	**Response Time**	**Warm-up Time**	**Protection Class**	**Measuring Principle**	**Working Range CO_2 ppm**	**Accuracy CO_2 ppm**	**Outputs Signal ppm**
149-DCV-CO2	< 90s	< 5mins	IP30	NDIR (Non-Dispersive Infrared Technology)*	0 - 2000	< ± (50 +2% of measuring value)	CO_2 0 - V DC referring to 0 - 2000



Installation

149-DCV-CO2 should be mounted in a location with good air circulation and one that can be expected to give representative readings. 149-DCV-CO2 may be mounted either on a wall-box or straight on the wall. To remove the front cover, use a 3mm flat-blade screwdriver to depress the locking tongue in the lower part of the casing (see arrow figure). Press and twist the screwdriver and at the same time pull the bottom part of the front outwards. When the bottom end of the front is free from the casing bottom part, slide the cover towards the top of the casing to free the hooks holding the upper edge of the front cover.

Wiring Diagram



This product conforms with the requirements of European EMC standards CENELEC EN 61000-6-1 and EN 61000-6-3 and carries the CE mark.
N.B. System neutral and signal neutral should be separately wired, because of current peaks in the supply wires. Screw terminal: Max. 1.5mm².

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