

CO₂-sensor with built in relay CO2RT-R-LB



Description

CO2RT-R-LB is a room sensor for measuring carbon dioxide levels in air. It has a builtin relay with switching output.

- Built-in relay
- CO₂-level 0...2000 ppm
- Excellent long term stability
- Snap-in cover

Lindab's CO2RT-R-LB with patented auto calibration process sets new standards in CO₂ measuring for HVAC applications.

Measuring principle

The CO₂-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.

The method gives several advantages:

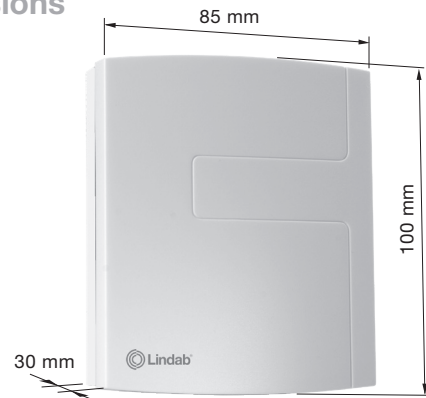
- Very high accuracy
- Exact identification of the detected gas
- Low risk for contamination
- Short response time
- High long term stability
- Long calibration interval (> 5 years)

Wiring

| | |
|---|------------------------|
| 1 | Supply voltage 24 V AC |
| 2 | System neutral 24 V AC |
| 3 | Common |
| 4 | Normally open |
| 5 | Normally closed |

Screw terminal: Max. 1.5 mm²

Dimensions

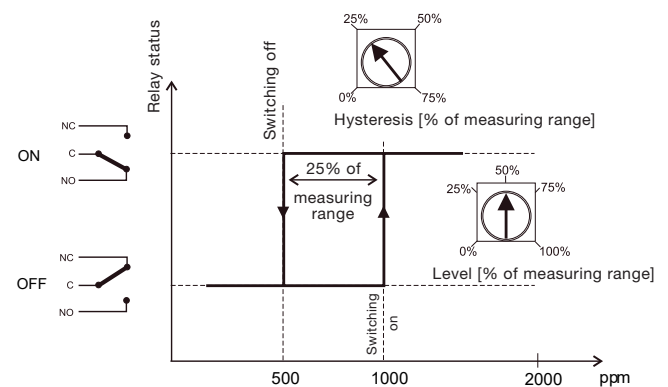


The sensor is mounted in the cover-part of the casing. The cover is easy to detach from the back by means of snap-in grips and detachable terminals. This makes mounting easier. Furthermore, no cables have to be disconnected, which simplifies service and replacement.

Applications

The CO₂-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.

Hysteresis and level



Order code

CO2RT-R-LB

Product

CO₂-sensor with built in relay CO2RT-R-LB

Technical data

| | |
|-------------------------------------|---|
| Supply voltage: | 24 V AC +/- 15%, 50...60 Hz or 15...35 V DC |
| Power consumption: | 3 W |
| Ambient temperature: | -5...+55°C |
| Ambient humidity: | 0..90% RH, not condensating |
| Temperature dependance: | typ. 2 ppm CO ₂ /°C |
| Storage temperature: | -40...70°C |
| Long term stability: | type 20 ppm / year |
| Response time: | < 90 sec. |
| Warm-up time: | < 5 min. |
| Protection class: | IP30 |
| Measuring principle: | NDIR (Non-Dispersive Infrared Technology) |
| Working range: | CO ₂ 0...2000 ppm |
| Accuracy CO ₂ (at 20°C): | < ± (50 ppm + 2% of measuring value) 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. |
| Colour: | White RAL 9010 |

Switching output

| | |
|-------------------------|--------------------------------|
| Max. switching voltage: | 50 V AC / 60 V DC |
| Max. switching load: | 1 A at 50 V AC, 1 A at 30 V DC |
| Min. switching load: | 1 mA at 5 V DC |
| Contact material: | Ag+Au clad |

Calibration

| | |
|-----------------------|---|
| Calibration interval: | More than five years. No calibration necessary at installation. |
| Calibration: | The sensor is calibrated by Lindab. |



This product carries the CE mark.

More information is available on demand.