

theben

AMUN 716 R
CO₂sensor
 7160101



309359 06

1. Designated use

The sensor measures carbon dioxide (CO₂), temperature and relative humidity in a room. The measured values are each output via a 0–10 V output (e.g. at a fan). 2 relay outputs are switched on depending on the CO₂ concentration. The ON/OFF thresholds are adjustable (see 4). The devices are suitable for use in rooms with normal levels of cleanliness.

2. Safety instructions



⚠ WARNING

Danger of death through electric shock or fire!

➤ Installation should only be carried out by a professional electrician!

- Do **not** use the sensor for safety related gas measurements.
- Operate the sensor with safety extra low voltage **only**.

3. Installation

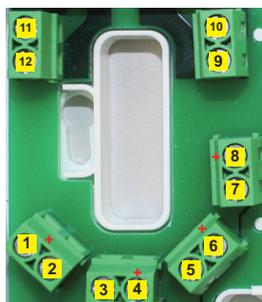
- Install the **sensor** on an internal wall or on a flush-mounted socket in a communal area.
- Avoid drafts or sources of direct heat emission.

4. Connection and installation

- The relay outputs are floating.
- Switching SELV is only permitted if both relays switch SELV.
- Ensure correct polarity at terminals 1–8 (1, 2 only for DC).

Terminal layout

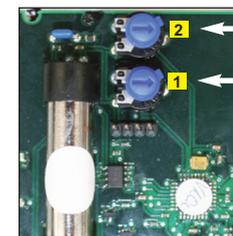
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|-----------|--|-----------|
| 1 | Operating voltage +24 V DC / 24 V AC (SELV) | |
| 2 | Operating voltage \perp DC / 24 V AC (SELV) | |
| 3 | 0–10 V output relative humidity (30–80 %) (GND) | |
| 4 | 0–10 V output relative humidity (30–80 %) (+) | |
| 5 | 0–10 V output temperature (5 °C–40 °C) (GND) | |
| 6 | 0–10 V output temperature (5 °C–40 °C) (+) | |
| 7 | 0–10 V output CO ₂ (0–2000 ppm) (GND) | |
| 8 | 0–10 V output CO ₂ (0–2000 ppm) (+) | |
| 9 | Relay Stage 2 | 5 A/250 V |
| 10 | Relay Stage 2 | 5 A/250 V |
| 11 | Relay Stage 1 | 5 A/250 V |
| 12 | Relay Stage 1 | 5 A/250 V |



Relay outputs/ON/OFF thresholds

The ON/OFF thresholds are set via the potentiometer in 100 ppm stages.

Stage 1	>700 ppm	Available range +/-200 ppm	1
Stage 2	>1300 ppm	Available range +/-200 ppm	2



5. Description and functions

The sensor has 3 LEDs (green, yellow, red) which display the current level of CO₂ content.

LED	Range
green	<800 ppm
yellow	800–1200 ppm
red	>1200 ppm

Display operating mode

Pressing the  button switches between Automatic, Manual (stage 1 and stage 2) and OFF.

6. Technical data

Operating voltage:	24 V AC/DC (SELV)
Power consumption:	8–20 mA (dependent on LED display, relay) max. 130 mA, <100 ms (measurement)
Mode of operation:	Type 1 B in accordance with EN 60730-1
Analog outputs:	3 x 0–10 V
Permissible amb. temperature:	5–40 °C
Protection rating:	IP 20 in accordance with EN 60529
Protection class:	II in accordance with EN 60730-1 for designated installation
Pollution degree:	2
Switching capacity:	max. switching current for each relay stage is 5 (1) A/250 V

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