Room CO_2 sensors respectively measuring transducers, self-calibrating, with active output, series Frija II

S+S REGELTECHNIK

The self-calibrating microprocessor-controlled AERASGARD® RCO_2 is used to detect the CO_2 content in air within a range of 0 ppm to 2000 ppm CO_2. The measurement signals from the CO_2 transmitter are converted into standard signals of 0-10 V. Optionally, this CO_2 measuring transducer can be supplied with display or switching output. Elegant enclosure made of plastic, with snap-on lid, base with 4-hole attachment for installation on vertically or horizontally installed in-wall flush boxes, with predetermined breaking point for on-wall cable entry. or in enclosures made of stainless steel (top and bottom part are of stainless steel, the lid is screwed on), vandalism-secure version e.g. for schools, military barracks, and public buildings. The CO_2 content in air is determined by a NDIR sensor (non-dispersive infrared technology). The detection range of this CO_2 sensor is calibrated for standard applications such as monitoring of residential rooms or conference rooms. Room ventilation on an as-needed basis, improvement of well-being and customer benefit, increased comfort as well as a reduction of operating costs by energy conservation are only some of the beneficial results of employing AERASGARD® RCO_2 sensors.

TECHNICAL DATA:

Power supply: ..... 24 V AC / DC

CARBON DIOXIDE (CO_2)

CO_2 sensor: ..... optical sensor (NDIR), non-dispersive infrared technology

Measuring range, CO_2: ..... **multi-range switching** (selectable via DIP switches) **0 ... 2000 ppm; 0 ... 5000 ppm; 0 ... 10000 ppm**

Output CO_2: ..... 0-10 V

Measuring accuracy CO_2: ..... ± 100 ppm

Pressure dependence: ..... ± 1.6 % / kPa (referred to standard pressure)

Long-term stability: ..... ± 1 % of final value per year

Service life: ..... > 12 years

Gas exchange: ..... by diffusion

Warm-up time: ..... ca. 1 hour

Ambient temperature: ..... 0 ...+50 °C

Electrical connection: ..... 0.14 - 1.5 mm², via terminals on circuit board

Enclosure: ..... plastic, material ABS, colour pure white (similar RAL 9010), stainless steel enclosure optional

Dimensions: ..... 98 x 106 x 32 mm (Frija II)
100 x 100 x 25 mm (stainless steel enclosure)

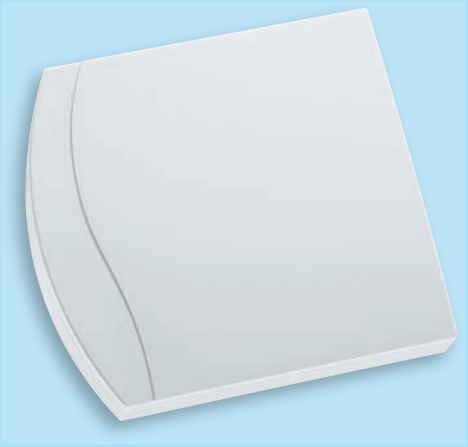
Installation: ..... wall mounting or on in-wall flush box, Ø 55 mm, base with 4-hole for mounting on vertically or horizontally installed in-wall flush boxes for cable entry from the back, with predetermined breaking point for on-wall cable entry from top / bottom in case of plain on-wall installation

Protection class: ..... III (according to EN 60 730)

Protection type: ..... IP 30 (according to EN 60 529)

Standards: ..... CE-conformity, electromagnetic compatibility according to EN 61 326 + A1 + A2, EMC directive 2004 / 108 / EC, low-voltage directive 73 / 23 / EEC

R CO_2



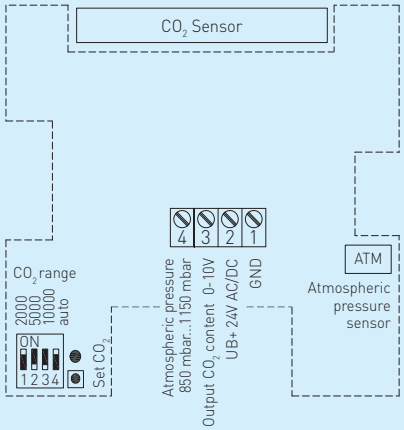
Connecting diagram **RCO_2**

1	UB+ 24V AC/DC
2	UB- 24V AC/DC
3	Free
4	Free
5	GND
6	Free
7	Free
8	Output CO_2 content in ppm 0-10V

Connecting diagram **RCO_2-Display**

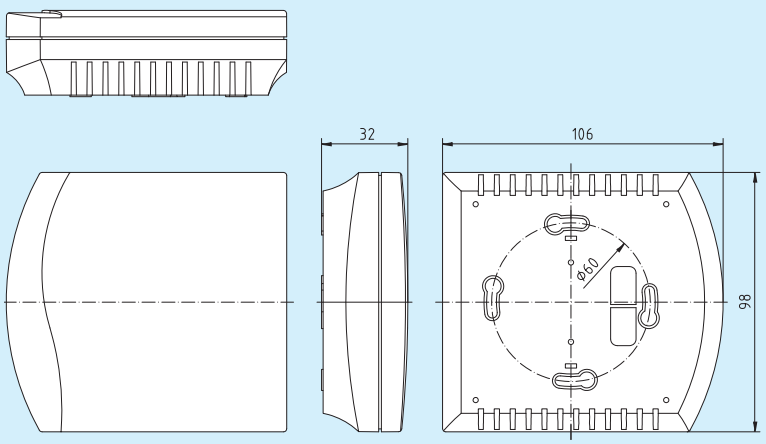
1	UB- GND
2	UB+ supply voltage 24V AC/DC
3	Output CO_2 content in ppm 0-10V

Schematic diagram **RCO_2-Display**



Dimensional drawing

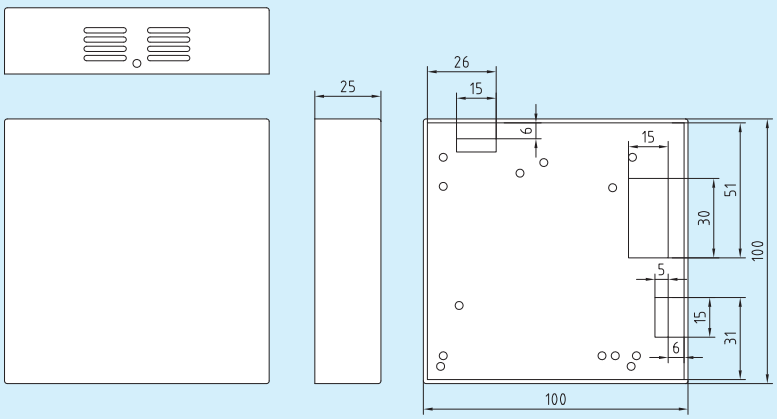
Enclosuere **Frija II**
RCO_2



RCO_2
with display

Dimensional drawing

Enclosure **stainless steel**
RCO_2



RCO_2
with stainless steel enclosure

AERASGARD® **RCO_2**

Type / WG1	**Measuring Range** CO_2	**Output**
RCO_2	0 ... 2000 ppm	0-10 V
RCO_2-U	0 ... 2000 ppm / 0 ... 5000 ppm / 0 ... 10000 ppm	0-10 V
xx-Stainless steel		
Note:	This unit **must not** be used as safety-relevant device!	