

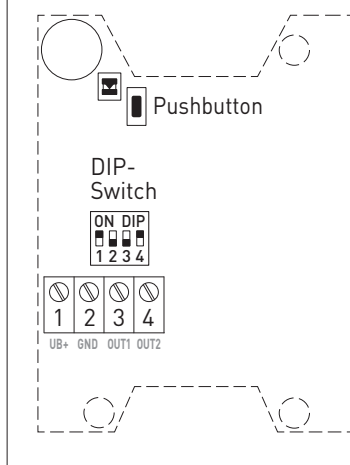
Maintenance-free room pendulum sensor **AERASGARD® RPCO2** with active output and **RPCO2-W** with active/switching output, automatic calibration (can be deactivated via DIP) and manual calibration (via push-button), in an impact-resistant plastic housing with quick-locking screws, optionally with / without display, for determining the CO2 content in the air (0 to 2000 / 5000 / 10000 ppm). The measuring transducer converts the measurand into a standard signal of 0-10 V (output 1) and 4...20 mA (output 2).

The CO2 measurement is performed using an optical **NDIR sensor** (non-dispersive infra-red technology). The sensor is simply suspended into the room as a pendulum, which ensures an accurate measurement result in rooms with high walls. The zero point calibration (400 ppm CO2) can be carried out in relation to the current ambient conditions by manual calibration on the unit. The air quality sensor performs an automatic self-calibration at regular intervals, which ensures CO2 measurement with long-term stability. The sensor is used in ventilation and air conditioning technology, ventilation monitoring, filter monitoring, level measurement.

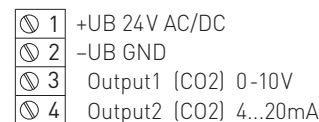
TECHNICAL DATA

Power supply:	24 V AC / DC (± 10 %), half-wave rectifier, read the instructions!
Power consumption:	Ø 100 mA, peak current up to 300 mA
Switching type:	3-wire connection
Output 1 (CO2):	0-10V
Output 2 (CO2):	4...20 mA
Relay output:	RPCO2 without changeover contact RPCO2-W with potential-free changeover contact (max. 48V / 1 A), switch point can be set
Sensor:	optical NDIR sensor (non-dispersive infra-red technology), with manual calibration (via zero push-button), with automatic calibration (can be deactivated via DIP switches)
Measuring range:	multi-range switching (selectable via DIP switches) 0...2000 ppm; 0...5000 ppm; 0...10000 ppm (other measuring ranges optionally available upon request)
Accuracy:	typically ± 75 ppm ± 5% of measured value up to 5000 ppm, otherwise ± 100 ppm ± 5% of measured value (at 20 °C, 45% RH, 1013 mbar, auto-calibration active)
Temperature dependence:	± 5 ppm per °C (at 20 °C)
Pressure dependence:	± 0.16 % per hPa based on standard pressure
Long-term stability:	< 1 % of final value per year
Gas exchange:	by diffusion
Warm-up time:	< 10 minutes
Response time:	< 5 minutes
Sensor protection:	filter foil (sensor in pendulum)
Protective tube:	Ø 25.5 mm, L = 95 mm (see dimensional drawing)
Sensor cable:	PVC, H03VV-F, 4 x 0.14 mm ² , KL = 2 m
Housing:	plastic, UV-resistant, polyamide material, 30% glass-globe reinforced, with quick-locking screws (slotted/Phillips head combination) colour traffic white (similar to RAL 9016)
Housing dimensions:	126 x 90 x 50 mm (Tyr 2)
Cable connection:	cable gland made of plastic (M16 x 1.5; with strain relief, exchangeable, max. inner diameter 10.4 mm)
Electrical connection:	0.14–1.5 mm ² , via screw terminals
Process connection:	via screws
Ambient temperature:	0...+50 °C (operation); -20...+50 °C (storage)
Permitted humidity:	10...95% RH, non-condensing air
Response time:	< 5 min, running-in time < 20 min
Protection class:	III (according to EN 60 730)
Protection type:	IP 65 (according to EN 60 529) housing IP 30 (according to EN 60 529) pendulum
Standards:	CE-conformity according to EMC Directive 2014 / 30 / EU
Optional:	with display in hinged cover housing BC* (90 x 80 x 47 mm), LCD display (128 x 64 pixels), display content can be rotated by 90° steps, backlight (on/off/auto), to display the actual CO2 content in ppm, set switching threshold, switching status and MIN/MAX of the selected interval (1 h / 6 h / 12 h / 24 h)

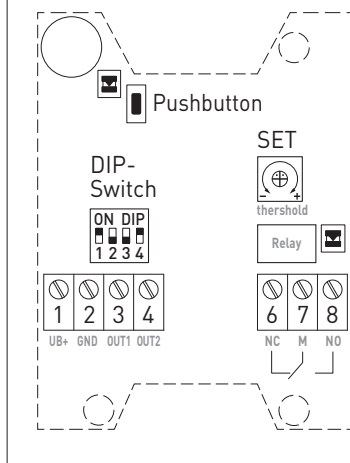
Schematic diagram **RPCO2**



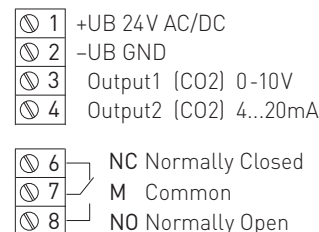
Connection diagram **RPCO2**



Schematic diagram **RPCO2-W**



Connection diagram **RPCO2-W**



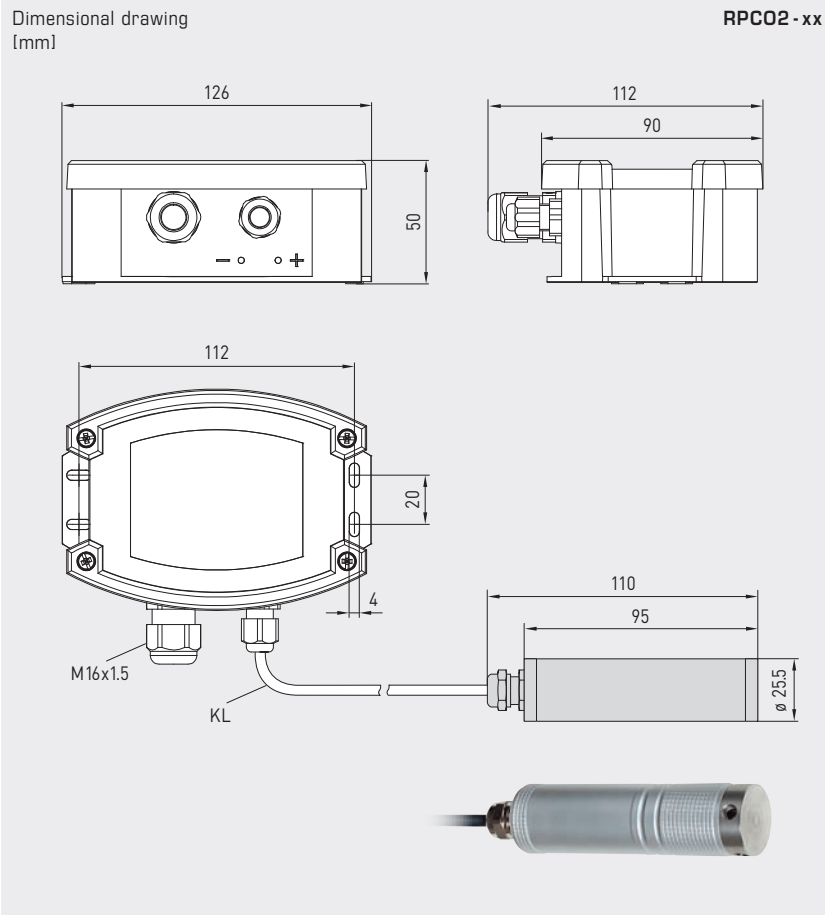


NEW

S+S REGELTECHNIK

AERASGARD® RPC02
AERASGARD® RPC02-W

Room pendulum CO2 sensor or measuring transducer,
self-calibrating, with multi-range switching
and active/switching output



RPC02 - xx



Measuring range CO2 content	DIP 1	DIP 2	DIP 3
0...2000 ppm (default)	ON	OFF	OFF
0...5000 ppm	OFF	ON	OFF
0...10000 ppm	OFF	OFF	ON

Automatic CO2 calibration	DIP 4
activated (default)	ON
deactivated	OFF

AERASGARD® RPC02 Room pendulum CO2 sensor or measuring transducer, *Premium*
AERASGARD® RPC02-W Room pendulum CO2 sensor or measuring transducer, *Premium*

Type / WG02	Measuring ranges CO2	Output 1 CO2	Output 2 CO2	Output switching	Display	Item no.	Price
RPC02	(switchable)						
RPC02	0...2000 ppm / 0...5000 ppm / 0...10000 ppm	0-10 V	4...20 mA	-		3CON-0203-0001-000	448,05 €
RPC02 LCD	(3x as above)	0-10 V	4...20 mA	-	■	3CON-0206-0001-000	509,24 €
RPC02-W	(switchable)						
RPC02-W	0...2000 ppm / 0...5000 ppm / 0...10000 ppm	0-10 V	4...20 mA	Changeover contact		3CON-0203-1001-000	463,11 €
RPC02-W LCD	(3x as above)	0-10 V	4...20 mA	Changeover contact	■	3CON-0206-1001-000	525,24 €

Note: This unit must **not** be used as a safety-relevant device!