

AERASGARD® RCO₂ / RLQ-CO₂ - Modbus AERASGARD® RFTM-(LQ)-CO₂ - Modbus



S+S REGELTECHNIK

**Multifunctional room sensors and measuring transducers,
for humidity, temperature, air quality (VOC) and CO₂ content,
calibratable, with Modbus connection**

The maintenance-free, microprocessor-controlled **AERASGARD® RFTM-LQ-CO₂-Modbus** and **RCO₂ / RLQ-CO₂ / RFTM-CO₂-Modbus** with Modbus connection, with/without optional display, in an elegant housing, plastic, with snap-on lid, base with 4-hole attachment, is used to monitor the entire room climate. For this purpose, measurands air humidity, temperature, CO₂ concentration as well as air quality (VOC) are measured. A setpoint potentiometer is optionally available as an operating element. By using a single device to monitor all four measurands, it is possible to effectively monitor and regulate the entire room climate. It measures CO₂ in the range of 0...5000 ppm, VOC at one of three selectable sensitivity levels LOW / MEDIUM / HIGH, temperatures in the range of 0...+50°C, as well as relative air humidity from 0...100% r.H.

A digital, long-term stable sensor used as measuring element for relative air humidity and temperature guarantees exact measurement results. The air quality is determined based on a (VOC) gas mixture sensor. The CO₂ content of the air is measured using an optical NDIR sensor (non-dispersive infra-red technology).

TECHNICAL DATA

Voltage supply:	24 V AC / DC (± 10%)
Power consumption:	< 4.4 W / 24 V DC typical; < 6.4 VA / 24 V AC typical; peak current 200 mA
Data points:	temperature [°C], relative humidity [% RH] air quality (VOC) [%], carbon dioxide (CO ₂) [ppm] and setpoint potentiometer

HUMIDITY

Sensors:	digital humidity sensor with integrated temperature sensor, low hysteresis, high long-term stability
Operating range, humidity:	0...95% r.H. (without dew formation)
Deviation, humidity:	typically ±2.0% (20...80% r.H.) at +25°C, otherwise ± 3.0%

TEMPERATURE

Operating range, temperature:	0...+50°C
Deviation, temperature:	typically ±0.2 K at +25°C

AIR QUALITY (VOC)

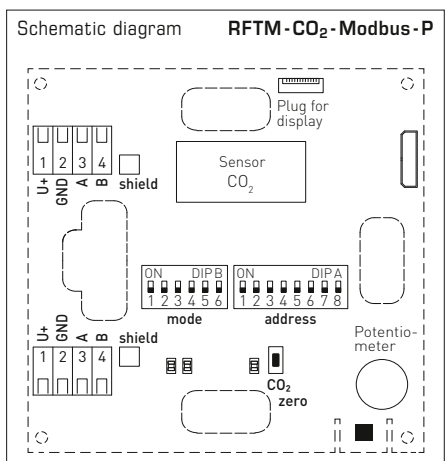
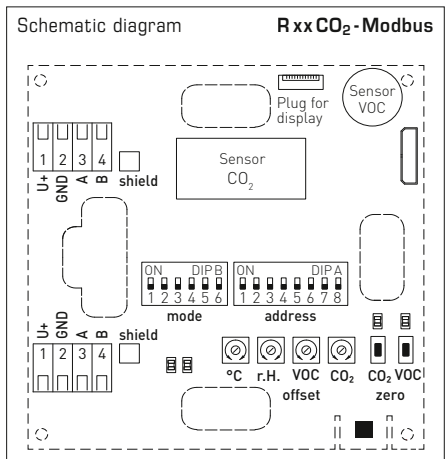
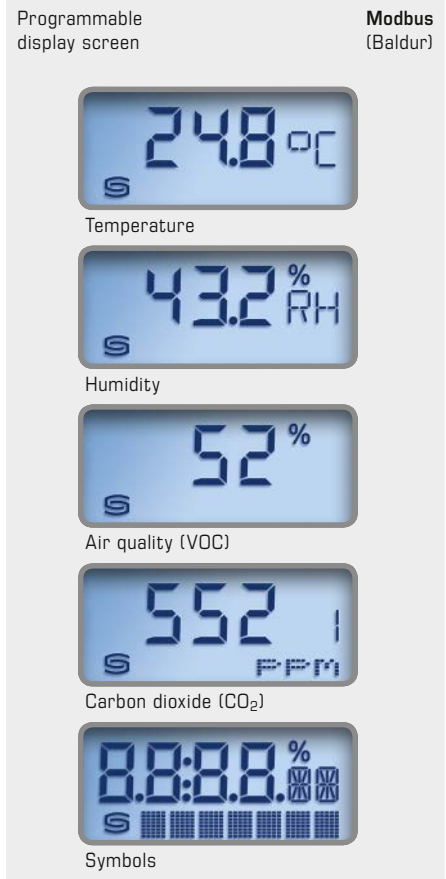
Sensor, VOC:	VOC sensor (metal oxide) with automatic calibration (VOC = volatile organic compounds)
Measuring range, VOC:	0...100% air quality; referred to calibrating gas; multi-range switching VOC sensitivity low, medium, high
Measuring accuracy, VOC:	± 20% of final value (referred to calibrating gas)
Service life:	> 60 months (under normal load conditions)

CARBON DIOXIDE (CO₂)

Sensor, CO ₂ :	optical NDIR sensor (non-dispersive infra-red technology) with automatic and manual calibration
Measuring range, CO ₂ :	0...5000 ppm
Measuring accuracy, CO ₂ :	typically ±30 ppm ±3% of measured value
Temperature dependence, CO ₂ :	± 5 ppm / °C or ± 0.5% of measured value / °C (whichever is higher)
Pressure dependence:	± 0.13% / mm Hg
Long-term stability:	< 2% in 15 years
Gas exchange:	by diffusion
Bus protocol:	Modbus (RTU-Mode), address range 0... 247 selectable
Signal filtering:	4 s / 32 s
Ambient temperature:	0...+50°C
Warm up time:	approx. 1 hour
Response time:	< 2 minutes
Electrical connection:	0.2 - 1.5 mm ² , via push-in terminal
Housing:	plastic, material ABS, colour pure white (similar to RAL 9010)
Dimensions:	98 x 98 x 33 mm (Baldur 2)
Installation:	wall mounting or on in-wall flush box, Ø55 mm, base with 4 holes, for attachment to vertically or horizontally installed in-wall flush boxes for rear cable entry, with predetermined breaking point for 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, EMC Directive 2014 / 30 / EU, Low Voltage Directive 2014 / 35 / EU
Optional:	display with illumination , two line, cutout approx. 36 x 15 mm (W x H), for displaying actual humidity, actual temperature, air quality and the actual CO ₂ content (cyclic) or a selectable parameter (static) or an individually programmable display value

ACCESSORIES

see table





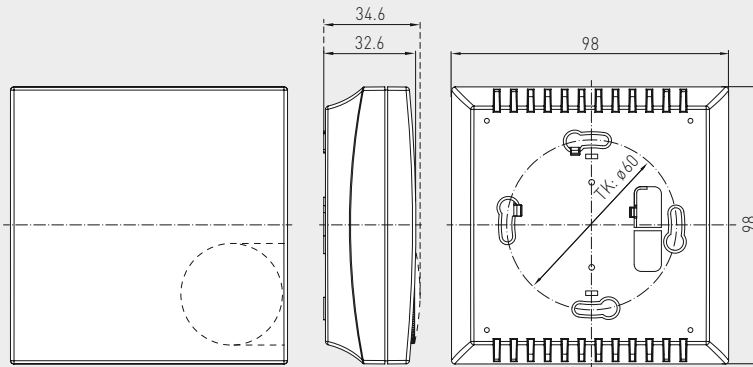
S+S REGELTECHNIK

AERASGARD® RCO₂ / RLQ - CO₂ - Modbus
 AERASGARD® RFTM - (LQ) - CO₂ - Modbus

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Dimensional drawing
 (Balduur 2)

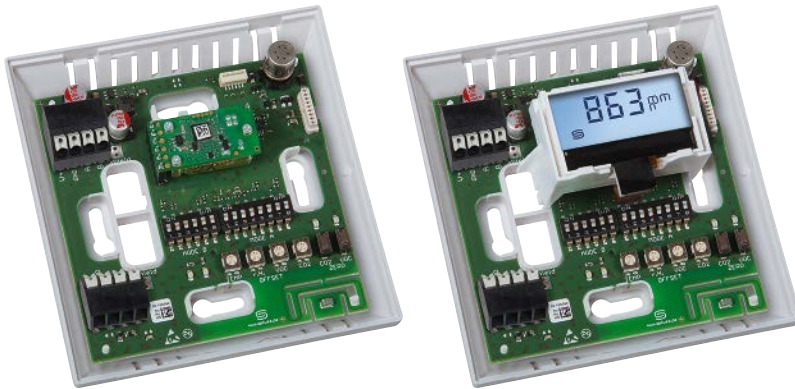


R xx CO₂ - Modbus
 RFTM - CO₂ - Modbus - P

R xx CO₂ - Modbus



RFTM - CO₂ - Modbus - P
 with display and potentiometer



AERASGARD® RCO ₂ - Modbus	Room CO ₂ sensor, <i>Deluxe</i>
AERASGARD® RLQ - CO ₂ - Modbus	Room air quality (VOC) and CO ₂ sensor, <i>Deluxe</i>
AERASGARD® RFTM - CO ₂ - Modbus (- P)	Multifunctional room sensor (with potentiometer) for humidity, temperature and CO ₂ content, <i>Deluxe</i>
AERASGARD® RFTM - LQ - CO ₂ - Modbus	Multifunctional room sensor for humidity, temperature, air quality (VOC) and CO ₂ content, <i>Deluxe</i>

Type / WG02	Measuring Range				Display	Item No.	Price
	Humidity	Temperature	CO ₂	VOC			
RCO₂ - Modbus							
RCO2 MODBUS	-	-	5000 ppm	-		1501-61B0-6001-200	245,69 €
RCO2 MODBUS LCD	-	-	5000 ppm	-	■	1501-61B0-6021-200	288,77 €
RLQ - CO₂ - Modbus							
RLQ-CO2 MODBUS	-	-	5000 ppm	0...100%		1501-61B1-6001-200	355,47 €
RLQ-CO2 MODBUS LCD	-	-	5000 ppm	0...100%	■	1501-61B1-6021-200	398,55 €
RFTM - CO₂ - Modbus							
RFTM-CO2 MODBUS	0...100% r.H.	0...+50 °C	5000 ppm	-		1501-61B6-6001-200	278,10 €
RFTM-CO2 MODBUS LCD	0...100% r.H.	0...+50 °C	5000 ppm	-	■	1501-61B6-6021-200	320,97 €
RFTM - CO₂ - Modbus - P							
with potentiometer							
RFTM-CO2 MODBUS P	0...100% r.H.	0...+50 °C	5000 ppm	-		1501-61B6-6501-271	317,75 €
RFTM-CO2 MODBUS P LCD	0...100% r.H.	0...+50 °C	5000 ppm	-	■	1501-61B6-6521-271	360,83 €
RFTM - LQ - CO₂ - Modbus							
RFTM-LQ-CO2 MODBUS	0...100% r.H.	0...+50 °C	5000 ppm	0...100%		1501-61B8-6001-200	386,84 €
RFTM-LQ-CO2 MODBUS LCD	0...100% r.H.	0...+50 °C	5000 ppm	0...100%	■	1501-61B8-6021-200	429,92 €
Note:	This unit must not be used as safety-relevant device!						
ACCESSORIES							
KA2-Modbus	Communication adapter (USB/RS485) for system connection					1906-1200-0000-100	185,00 €
LA-Modbus	Line termination device (with terminating resistor) as an active bus termination					1906-1300-0000-100	69,00 €