AERASGARD® FSCO2
AERASGARD® FSTM-CO2

Room CO2 and temperature sensor or measuring transducer,
in-wall in the panel switch programme,
with active output

S+S REGELTECHNIK

The room sensor **AER**ASGARD® **FSCO2** / **FSTM - CO2** in the in-wall housing is used for measuring the CO2 content and temperature of the air. It converts the measured values into a standard signal of 0 -10 V.

The CO2 content of the air is measured using an optical NDIR sensor (non-dispersive infra-red technology). A digital, long-term stable sensor is used for temperature measurement.

The in-wall sensor is mounted in high-quality panel switch programmes, ideally of the brands Gira, Berker, Merten, Jung, Siemens or Busch-Jaeger (using in-wall adapters) either individually or in combination with light switches, socket outlets, etc.

It is used in non-aggressive, dust-free environments, in refrigeration, air conditioning and clean room technology, and in interior rooms, such as living rooms, offices, hotels, etc.

Mounting diagram	in-wall

TECHNICAL DATA

Power supply:	24 V AC / DC (± 10 %)
Power consumption:	< 1.5 W / 24 V DC ; < 2.9 VA / 24 V AC

CARBON DIOXIDE (CO2)

Sensor, CO2:	**optical NDIR sensor** (non-dispersive infra-red technology), with manual calibration (via zero button) and automatic calibration (fixed)
Long-term stability:	< 2 % in 15 years
Measuring range, CO2:	0...2000 ppm
Output, CO2:	0 - 10 V
Accuracy CO2:	typically ± 30 ppm ± 3 % of measured value
Temperature dependence:	± 5 ppm / °C or ± 0.5 % of measured value / °C (whichever is higher)
Pressure dependence:	± 0.13 % / mm Hg
Gas exchange:	by diffusion
Warm up time:	approx. 1 hour
Response time:	< 2 minutes

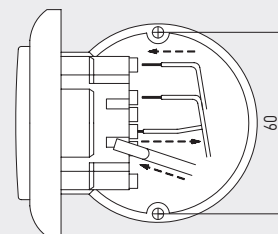### TEMPERATURE

Sensor:	**digital temperature sensor,** low hysteresis, high long-term stability
Long-term stability:	± 1 % per year
Measuring range:	0...+50 °C
Accuracy, temperature:	typically ± 0.8 K at +25 °C
Output, temperature:	0 - 10 V

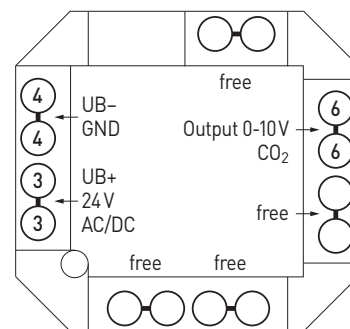|	
Mounting:	in-wall flush box Ø 55 mm
Electrical connection:	1.0 - 2.5 mm², via plug terminals
Ambient temperature:	storage −35...+85 °C; operation 0...+50 °C
Permitted humidity:	max. 90 % RH, non-precipitating air
Medium:	clean air and other non-aggressive, non-combustible gases
Protection class:	III (according to EN 60 730)
Protection type:	IP 20 (according to 60 529)
Standards:	CE-conformity according to EMC Directive 2014 / 30 / EU

SWITCH PROGRAMME

|	
Manufacturer:	GIRA System 55 (other switch programmes, manufacturers, colours as well as prices available upon request)
Housing:	plastic, the standard colour is pure glossy white (similar to RAL 9010) (other colours are available upon request with colour variants depending on the respective light switch programme)

Connection diagram	FSCO2

Connection diagram	FSTM-CO2
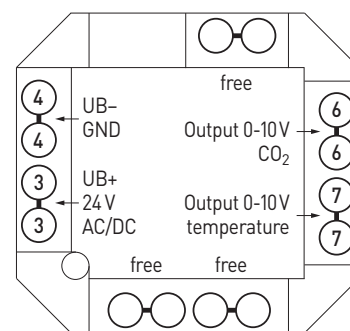
Schematic diagram	FSFTM - CO2
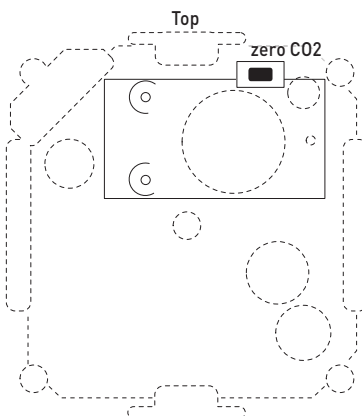
Room CO2 and temperature sensor or measuring transducer,
in-wall in the panel switch programme,
with active output
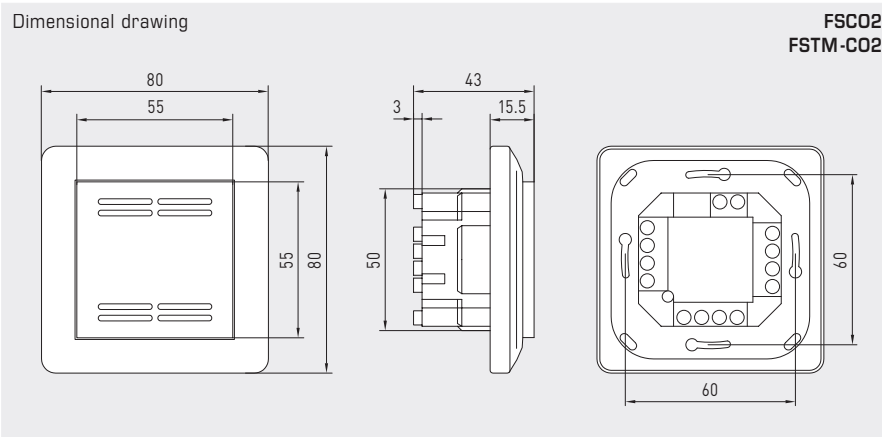
Dimensional drawing | FSCO2 FSTM-CO2 | FSCO2 FSTM-CO2

CO2 content table
MR: 0…2000 ppm

ppm	U_A [V]
0	0.00
350	1.75
400	2.00
450	2.25
500	2.50
550	2.75
600	3.00
700	3.50
800	4.00
900	4.50
Continued to the right …	

ppm	U_A [V]
1000	5.0
1100	5.5
1200	6.0
1300	6.5
1400	7.0
1500	7.5
1600	8.0
1700	8.5
1800	9.0
1900	9.5
2000	10.0

Temperature table
MR: 0…+50 °C

°C	U_A [V]
0	0.0
5	1.0
10	2.0
15	3.0
20	4.0
25	5.0
30	6.0
35	7.0
40	8.0
45	9.0
50	10.0

AERASGARD® FSCO2 Room CO2 sensor or measuring transducer, in-wall
AERASGARD® FSTM-CO2 Room temperature and CO2 sensor or measuring transducer, in-wall

Type / WG02	Measuring Range CO2	Temperature	Output CO2	Temperature	Item No.	Price
FSCO2						
FSCO2-U	0…2000 ppm	–	0-10 V	–	1501-9120-1001-162	**361,96 €**
FSTM-CO2						
FSTM-CO2-U	0…2000 ppm	0…+50 °C	0-10 V	0-10 V	1501-9122-1001-162	**367,04 €**