HYGRASGARD® FSFM
HYGRASGARD® FSFTM

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

NEW

S+S REGELTECHNIK

The room sensor **HYGRASGARD® FSFM / FSFTM** in the in-wall enclosure is used for measuring the relative humidity and temperature of the air. It converts the measured values into a standard signal of 0-10 V.

A digital, long-term stable sensor is used for humidity and temperature measurement. Relative humidity [% r.H.] is the quotient of water vapour partial pressure divided by the saturation vapour pressure at the respective gas temperature.

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

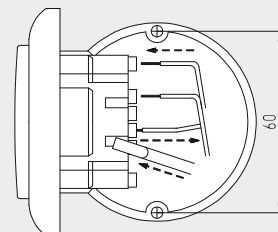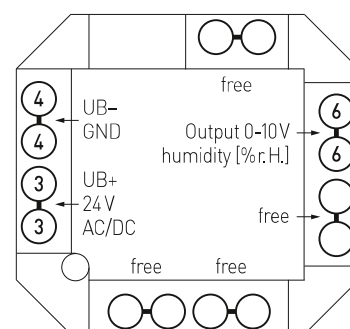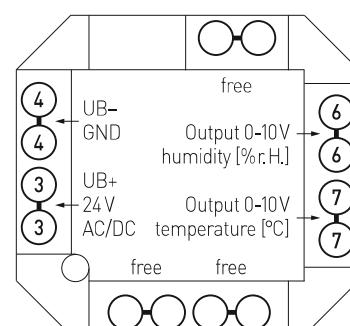|	
Power supply:	24 V AC / DC (± 10 %)
Power consumption:	< 1.1 W / 24 V DC ; < 2.2 VA / 24 V AC
HUMIDITY	
Sensor:	**digital humidity sensor, with integrated temperature sensor,** low hysteresis, high long-term stability
Long-term stability:	± 1 % per year
Measuring range, humidity::	0...100 % r. H.
Operating range, humidity:	0...95 % r. H. (non-precipitating air)
Deviation, humidity:	typically ± 3.0 % (20...80 % r. H.) at +25 °C, otherwise ± 5.0 %
Output, humidity:	0 -10 V
TEMPERATURE	
Measuring range:	0...+50 °C
Deviation, temperature:	typically ± 0.8 K at +25 °C
Output, temperature:	0 -10 V
Mounting:	in-wall flush box Ø 55 mm
Electrical connection:	0.14 - 1.5 mm², using plug terminals
Ambient temperature:	Storage −35...+85 °C; Operation 0...+50 °C
Permitted humidity:	max. 90 % r.H., 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, electromagnetic compatibility according to EN 61 326, EMC Directive 2014 / 30 / EU
SWITCH PROGRAMME	
Manufacturer:	GIRA System 55 (other switch programmes, manufacturers, colours as well as prices available upon request)
Enclosure:	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)

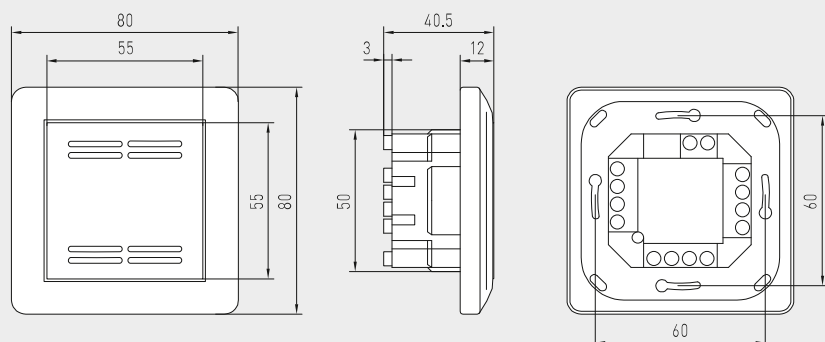Connection diagram   **FSFM**

Connection diagram   **FSFTM**

HYGRASGARD® **FSFM**
HYGRASGARD® **FSFTM**

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

S+S REGELTECHNIK

NEW

Dimensional drawing

FSFM
FSFTM

FSFM
FSFTM

Humidity table
MR: 0...100 % r.H.

% r.H.	U$_A$ [V]
0	0
5	0.5
10	1.0
15	1.5
20	2.0
25	2.5
30	3.0
35	3.5
40	4.0
45	4.5
Continued to the right ...	

% r.H.	U$_A$ [V]
50	5.0
55	5.5
60	6.0
65	6.5
70	7.0
75	7.5
80	8.0
85	8.5
90	9.0
95	9.5
100	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

HYGRASGARD® **FSFM**	Room humidity sensor or measuring transducer, in-wall
HYGRASGARD® **FSFTM**	Room humidity and temperature sensor or measuring transducer, in-wall

Type / WG02	Measuring Range		Output		Item No.	Price
	Humidity	Temperature	Humidity	Temperature		
FSFM						
FSFM-U	0...100 % r. H.	–	0 -10 V	–	1201-9121-0000-162	**202,00 €**
FSFTM						
FSFTM-U	0...100 % r. H.	0...+50 °C	0 -10 V	0 - 10 V	1201-9121-1000-162	**208,00 €**