

Configuration variants of room operating units

Room temperature sensors and measuring transducers
in-wall, panel switch programme

An overview of various versions ...

with potentiometer,
rocker switch and LED



with push-buttons and LEDs



Room temperature sensor



with push-buttons and LEDs



with potentiometer



with potentiometer



with potentiometer,
push-button, and LED



with potentiometer,
push-button, and LEDs



with potentiometer,
push-buttons, and LEDs



with potentiometer,
push-buttons, and LEDs



with potentiometer,
push-button, and LED



with potentiometer and turn switch



with potentiometer,
push-buttons, and LEDs



with potentiometer,
push-button, and LED



with potentiometer,
turn switch, and LEDs



with potentiometer
and rocker switch



with potentiometer,
push-button, and LED



with potentiometer,
push-button, and LEDs



Room temperature sensors

in-wall, panel switch programme, general

A room temperature sensor **THERMASGARD® FSTF** is used for air temperature measurement or setpoint adjustment, for presence detection or as room control and operating panel with temperature sensor, push-buttons, potentiometers, status indicators (LEDs).

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.

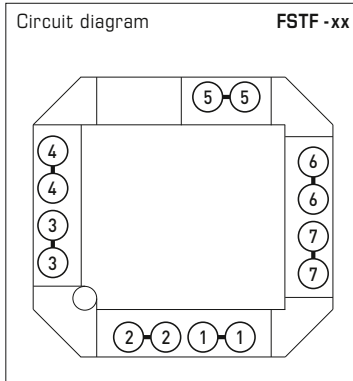
It is used in non-aggressive, dust-free environments, in refrigeration, air conditioning and clean room technology, and in interior rooms, such as living rooms, offices, hotels, etc.

TECHNICAL DATA

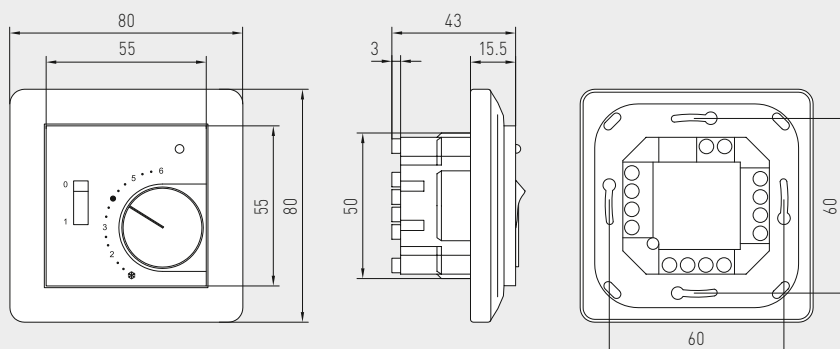
Measuring ranges:	−30...+60 °C
Sensor / output:	see table, assembled on board, passive
Range suppression:	in the button
Testing current:	$< 0.6 \text{ mA}$ (Pt1000) $< 1.0 \text{ mA}$ (Pt100) $< 0.3 \text{ mA}$ (Ni1000, Ni1000 TK5000) $< 2.0 \text{ mW}$ (NTC xx) $400 \mu\text{A}...5 \text{ mA}$ (LM235Z)
Potentiometers:	standard $1 \text{ k}\Omega$, max. 0.1 W (other ratings optional on request, e. g. 100Ω , $2.5 \text{ k}\Omega$, $5 \text{ k}\Omega$, $10 \text{ k}\Omega$ optional $0-10 \text{ V}$ linear)
Turn switches:	max. 24 V AC/DC , max. 130 mA , max. 5 steps (0, Auto, I, II, III)
Rocker switch:	max. 24 V AC/DC , max. 130 mA
Push-buttons:	normally open contact, max. 24 V DC/10 mA
LEDs:	max. 24 V DC (optional max. 24 V AC), standard green (red, yellow or two-colour optional)
Installation:	in in-wall flush box $\varnothing 55 \text{ mm}$
Electrical connection:	FSTF-1 via screw terminals $0.14-1.5 \text{ mm}^2$, FSTF-xx via plug terminals $1.0-2.5 \text{ mm}^2$, on safety extra-low voltage only, max. 42 V AC , 60 V DC
Humidity:	max. $90\% \text{ r.H.}$, non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP 20 (according to EN 60 529)

SWITCH PROGRAMMES

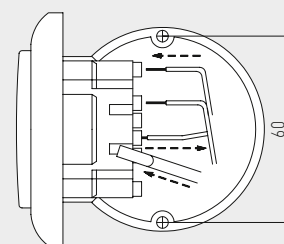
Manufacturer:	GIRA System 55 Standard (other switch programmes, manufacturers, and prices upon request)
Housing:	plastic, colour pure white glossy (similar to RAL 9010) (other colours are possible on request with colour variants depending on the respective switch programme)



Dimensional drawing

FSTF-xx

Installation scheme

FSTF-xx



S+S REGELTECHNIK

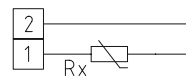
THERMASGARD® FSTF 1

Room temperature sensors
in-wall, panel switch programme,
standard version

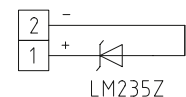


FSTF 1
Standard version
with sensor

1x two-wire connection
Standard



1x two-wire connection
LM235Z (KP10)

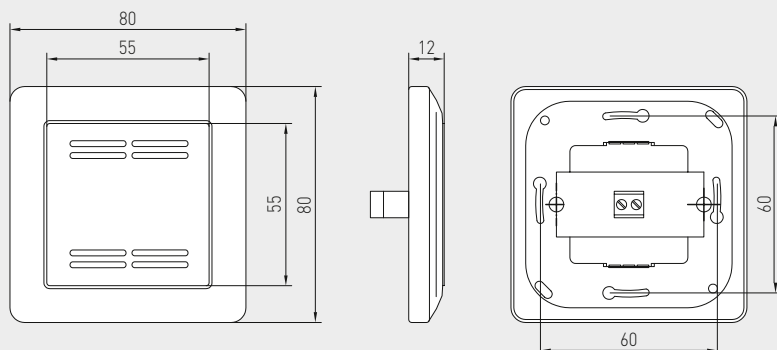


THERMASGARD® FSTF 1 Room temperature sensors

Type / WG01	Sensor / Output	Item No.
FSTF1	passive	IP20 (-30...+60 °C)
FSTF1 Pt100	Pt100 (according to DIN EN 60 751, class B)	1101-5020-1000-162
FSTF1 Pt1000	Pt1000 (according to DIN EN 60 751, class B)	1101-5020-5000-162
FSTF1 Ni1000	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-5020-9000-162
FSTF1 NiTK	Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000	1101-5021-0000-162
FSTF1 LM235Z	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-5022-1000-162
FSTF1 NTC1,8K	NTC 1.8 K	1101-5021-2000-162
FSTF1 NTC10K	NTC 10K	1101-5021-5000-162
FSTF1 NTC20K	NTC 20K	1101-5021-6000-162

Dimensional drawing

FSTF - 1

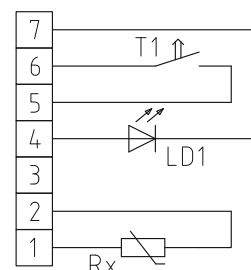


Room temperature sensors
in-wall, panel switch programme,
different versions

**FSTFxxLT**

Version with sensor,
LED (green), and push-button
(max. 24 V DC, max. 10 mA)

Connecting diagram

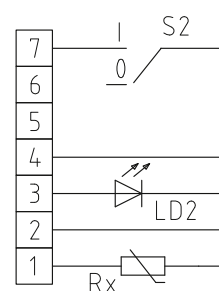
FSTFxxLT**THERMASGARD® FSTFxxLT** Room temperature sensors

Type/WG01	Sensor/Output	Item No.
FSTFxxLT	passive	IP 20 (-30...+60 °C)
FSTF Pt100 L T	Pt100 (according to DIN EN 60 751, class B)	1101-5020-1593-350
FSTF Pt1000 L T	Pt1000 (according to DIN EN 60 751, class B)	1101-5020-5593-350
FSTF Ni1000 L T	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-5020-9593-350
FSTF NiTK L T	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-5021-0593-350
FSTF LM235Z L T	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10	1101-5022-1593-350
FSTF NTC1,8K L T	NTC 1.8K	1101-5021-2593-350
FSTF NTC10K L T	NTC 10K	1101-5021-5593-350
FSTF NTC20K L T	NTC 20K	1101-5021-6593-350

**FSTFxxLD2**

Version with sensor,
LED (green), and turn switch (2-step)
(max. 24 V AC/DC, max. 130 mA)

Connecting diagram

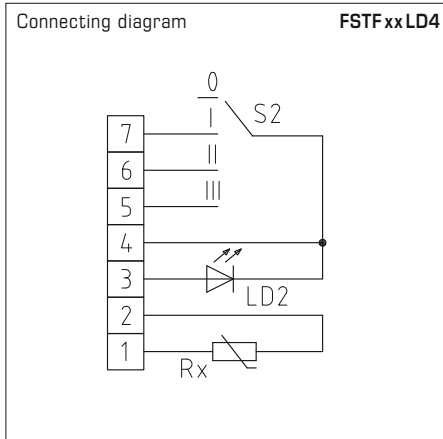
FSTFxxLD2**THERMASGARD® FSTFxxLD2** Room temperature sensors

Type/WG01	Sensor/Output	Item No.
FSTFxxLD2	passive	IP 20 (-30...+60 °C)
FSTF Pt100 D2 L	Pt100 (according to DIN EN 60 751, class B)	1101-5020-1631-351
FSTF Pt1000 D2 L	Pt1000 (according to DIN EN 60 751, class B)	1101-5020-5631-351
FSTF Ni1000 D2 L	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-5020-9631-351
FSTF NiTK D2 L	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-5021-0631-351
FSTF LM235Z D2 L	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10	1101-5022-1631-351
FSTF NTC1,8K D2 L	NTC 1.8K	1101-5021-2631-351
FSTF NTC10K D2 L	NTC 10K	1101-5021-5631-351
FSTF NTC20K D2 L	NTC 20K	1101-5021-6631-351



FSTFxxLD4

Version with sensor,
LED (green) and turn switch (4-step)
(max. 24 V AC / DC, max. 130 mA)



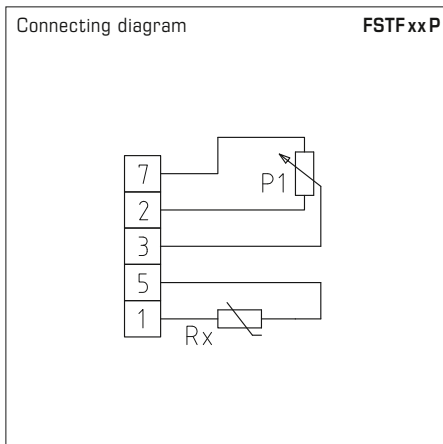
THERMASGARD® FSTFxxLD4 Room temperature sensors

Type / WG01	Sensor / Output	Item No.
FSTFxxLD4	passive	IP20 (–30...+60 °C)
FSTF Pt100 D4 L	Pt100 (according to DIN EN 60751, class B)	1101-5020-1643-352
FSTF Pt1000 D4 L	Pt1000 (according to DIN EN 60751, class B)	1101-5020-5643-352
FSTF Ni1000 D4 L	Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K)	1101-5020-9643-352
FSTF NiTK D4 L	Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000	1101-5021-0643-352
FSTF LM235Z D4 L	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-5022-1643-352
FSTF NTC1,8K D4 L	NTC 1.8K	1101-5021-2643-352
FSTF NTC10K D4 L	NTC 10K	1101-5021-5643-352
FSTF NTC20K D4 L	NTC 20K	1101-5021-6643-352



FSTFxxP

Version with sensor
and potentiometer
(1 kOhm, max. 0.1 W)



THERMASGARD® FSTFxxP Room temperature sensors

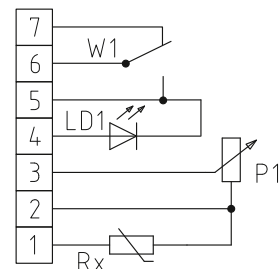
Type / WG01	Sensor / Output	Item No.
FSTFxxP	passive	IP20 (–30...+60 °C)
FSTF Pt100 P	Pt100 (according to DIN EN 60751, class B)	1101-5020-1001-282
FSTF Pt1000 P	Pt1000 (according to DIN EN 60751, class B)	1101-5020-5001-162
FSTF Ni1000 P	Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K)	1101-5020-9001-162
FSTF NiTK P	Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000	1101-5021-0001-162
FSTF LM235Z P	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-5022-1001-162
FSTF NTC1,8K P	NTC 1.8K	1101-5021-2001-162
FSTF NTC10K P	NTC 10K	1101-5021-5001-162
FSTF NTC20K P	NTC 20K	1101-5021-6001-162

Room temperature sensors
in-wall, panel switch programme,
different versions

**FSTFxxPLW**

Version with sensor,
potentiometer (1 kOhm, max. 0.1 W),
LED (green), and rocker switch
(max. 24 V AC/DC, max. 130 mA)

Connecting diagram

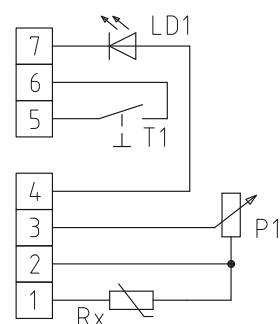
FSTFxxPLW**THERMASGARD® FSTFxxPLW** Room temperature sensors

Type/WG01	Sensor/Output	Item No.
FSTFxxPLW	passive	IP 20 (-30...+60 °C)
FSTF Pt100 P L W	Pt100 (according to DIN EN 60 751, class B)	1101-5020-1655-353
FSTF Pt1000 P L W	Pt1000 (according to DIN EN 60 751, class B)	1101-5020-5655-353
FSTF Ni1000 P L W	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-5020-9655-353
FSTF NiTK P L W	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-5021-0655-353
FSTF LM235Z P L W	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10	1101-5022-1655-353
FSTF NTC1,8K P L W	NTC 1.8K	1101-5021-2655-353
FSTF NTC10K P L W	NTC 10K	1101-5021-5655-353
FSTF NTC20K P L W	NTC 20K	1101-5021-6655-353

**FSTFxxPLT**

Version with sensor,
potentiometer (1 kOhm, max. 0.1 W),
LED (green), and push-button
(max. 24 V DC, max. 10 mA)

Connecting diagram

FSTFxxPLT**THERMASGARD® FSTFxxPLT** Room temperature sensors

Type/WG01	Sensor/Output	Item No.
FSTFxxPLT	passive	IP 20 (-30...+60 °C)
FSTF Pt100 P L T	Pt100 (according to DIN EN 60 751, class B)	1101-5020-1663-162
FSTF Pt1000 P L T	Pt1000 (according to DIN EN 60 751, class B)	1101-5020-5663-162
FSTF Ni1000 P L T	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-5020-9663-350
FSTF NiTK P L T	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-5021-0663-350
FSTF LM235Z P L T	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10	1101-5022-1663-350
FSTF NTC1,8K P L T	NTC 1.8K	1101-5021-2663-350
FSTF NTC10K P L T	NTC 10K	1101-5021-5663-350
FSTF NTC20K P L T	NTC 20K	1101-5021-6663-350



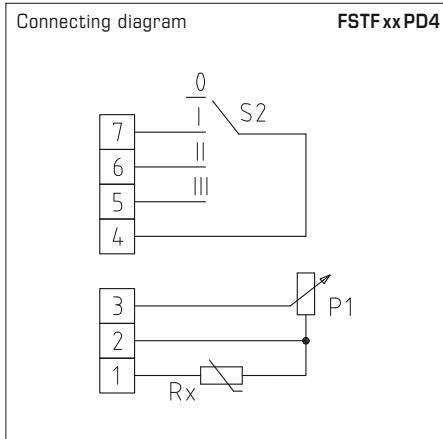
S+S REGELTECHNIK

THERMASGARD® FSTF xx

Room temperature sensors
in-wall, panel switch programme,
different versions



FSTFxxPD4
Version with sensor,
potentiometer (1 kOhm, max. 0.1 W)
and turn switch
(max. 24 V AC / DC, max. 130 mA)

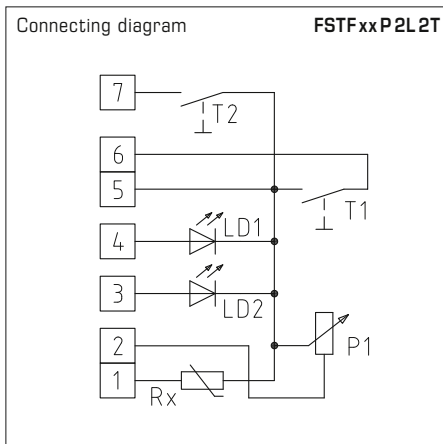


THERMASGARD® FSTF xx PD4 Room temperature sensors

Type / WG01	Sensor / Output	Item No.
FSTF xx PD4	passive	IP20 (-30...+60 °C)
FSTF Pt100 P D4	Pt100 (according to DIN EN 60751, class B)	1101-5020-1007-354
FSTF Pt1000 P D4	Pt1000 (according to DIN EN 60751, class B)	1101-5020-5007-354
FSTF Ni1000 P D4	Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K)	1101-5020-9007-354
FSTF NiTK P D4	Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000	1101-5021-0007-354
FSTF LM235Z P D4	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-5022-1007-354
FSTF NTC1,8K P D4	NTC 1.8K	1101-5021-2007-354
FSTF NTC10K P D4	NTC 10K	1101-5021-5007-354
FSTF NTC20K P D4	NTC 20K	1101-5021-6007-354



FSTF xx P2L2T
Version with sensor,
potentiometer (1 kOhm, max. 0.1 W),
2 LEDs (green, red), and 2 push-buttons (max.
24 V DC, max. 10 mA)



THERMASGARD® FSTF xx P2L2T Room temperature sensors

Type / WG01	Sensor / Output	Item No.
FSTF xx P2L2T	passive	IP20 (-30...+60 °C)
FSTF Pt100 P 2L 2T	Pt100 (according to DIN EN 60751, class B)	1101-5020-1672-256
FSTF Pt1000 P 2L 2T	Pt1000 (according to DIN EN 60751, class B)	1101-5020-5672-256
FSTF Ni1000 P 2L 2T	Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K)	1101-5020-9672-256
FSTF NiTK P2L2T	Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000	1101-5021-0672-256
FSTF LM235Z P 2L 2T	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-5022-1672-256
FSTF NTC1,8K P 2L 2T	NTC 1.8K	1101-5021-2672-256
FSTF NTC10K P 2L 2T	NTC 10K	1101-5021-5672-256
FSTF NTC20K P 2L 2T	NTC 20K	1101-5021-6672-256