

TEMPERATUR PASSIV



RUMFØLERE

Configuration variants of room operating units

Room temperature sensors and measuring transducers, on-wall, device series Baldur

Housing temperature sensors are electric contact thermometers for measuring temperatures in the gases (air) surrounding them on all sides. Room temperature sensors/measuring transducers are used for measuring air temperature (in non-precipitating air), for changing setpoint values, for presence detection, or as operating panels with push-buttons, switches, potentiometers, status indicators (LEDs) in residential, working, office and business facilities as well as in the industrial sector.

Here are some design and configuration examples of variants of the new Baldur series devices that can be individually customized ...

DEVICE SERIES

Baldur 1 (85 x 85 x 27 mm)

Baldur 2 (98 x 98 x 33 mm)

Baldur lying



Baldur 1
without operating elements



Baldur 1
with display



Baldur 1
with display and potentiometer



Baldur 1 with potentiometer,
push-button, and LED



Baldur 1 with potentiometer
and rocker switch



Baldur 1 with potentiometer
and push-buttons



Baldur 1 with potentiometer
and LEDs



Baldur 1 with potentiometer
and LEDs



Baldur 1 with potentiometer
and LEDs





Baldur2
without operating elements



Baldur2
with display



Baldur2 with display,
potentiometer, and LEDs



Baldur2
with LEDs and push-buttons



Baldur2
with LEDs and push-buttons



Baldur2 with potentiometer,
turn switch, and LEDs



Baldur2 with potentiometer,
turn switch, and LEDs



Baldur2 with potentiometer,
push-buttons, LEDs, and rocker switch



Baldur2 with potentiometer,
turn switch, and LEDs



Baldur2 with potentiometer
and turn switch



Baldur2 with potentiometer,
turn switch, LEDs, and push-buttons



Baldur2 with potentiometer,
turn switch, LEDs, and push-buttons

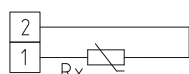
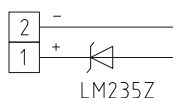
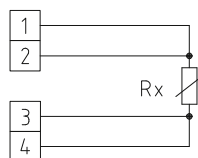


**Room temperature sensors and measuring transducers,
on-wall**

Room temperature sensor **THERMASGARD® RTF 1** with passive output, in an elegant housing made of plastic, with snap-on lid, base with 4-hole attachment for installation on vertically or horizontally installed in-wall flush boxes, with predetermined breaking point for on-wall cable entry, or in enclosures made of stainless steel (top and bottom part are of stainless steel, the lid is screwed on), vandal-proof version e.g. for schools, military barracks, and public buildings. This residential room temperature sensor is used to detect/display temperatures in closed dry rooms, in apartments, in cinemas, supermarkets, storage rooms, office and business facilities.

TECHNICAL DATA

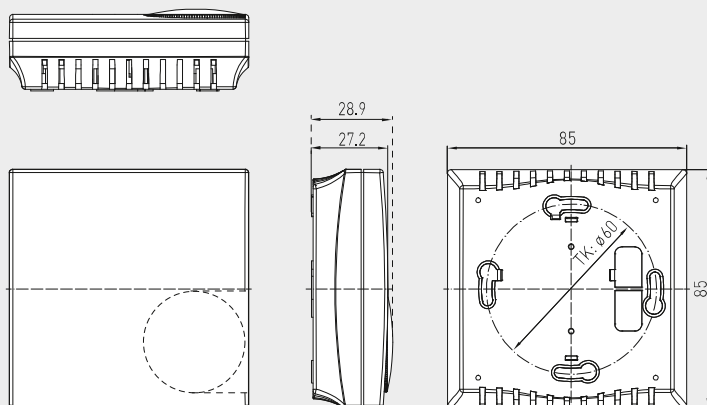
Measuring range:	−30...+70 °C
Sensor/output:	see table, passive
Connection type:	2-wire connection (4-wire connection on PT100/PT1000A, optional on other sensors)
Testing current:	< 0.6 mA (Pt1000) < 1.0 mA (Pt100) < 0.3 mA (Ni1000, Ni1000 TK5000) < 2.0 mW (NTC xx) 400 µA...5 mA (LM235Z)
Process connection:	by screws
Housing:	plastic, material ABS, colour pure white (similar to RAL 9010), optional stainless steel V2A (1.4301)
Dimensions:	85 x 85 x 27 mm (Baldur 1) Standard 98 x 98 x 33 mm (Baldur 2) optional 75 x 75 x 25 mm (stainless steel V2A (1.4301) optional
Installation:	wall mounting or on in-wall flush box Ø55 mm, base with 4-hole for mounting on vertically or horizontally installed in-wall flush boxes for cable entry from the back, with predetermined breaking point for on-wall cable entry from top/bottom in case of plain on-wall installation
Electrical connection:	0.14 - 1.5 mm ² via terminal screws, secured against loss due to unscrewing, on safety extra-low voltage max. 24 V DC only
Humidity:	max. 90% r. H., non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP 30 (according to EN 60 529)
ACCESSORIES	see last chapter

**1x two-wire connection
standard****1x two-wire connection
LM 235 Z (KP 10)****1x four-wire connection
(optional)****THERMASGARD® RTF 1** Room temperature sensors (Standard)

Type / WG03	Sensor / Output	Item No.	Price
RTF1 xx	passive	IP30 (−30...+70 °C)	
RTF1 Pt100	Pt100 (according to DIN EN 60 751, class B)	1101-40A0-1003-000	22,24 €
RTF1 Pt1000	Pt1000 (according to DIN EN 60 751, class B)	1101-40A0-5000-000	24,73 €
RTF1 Pt1000A	Pt1000 (according to VDI/VDE 3512, class A-TGA)	1101-40A0-6003-000	26,43 €
RTF1 Ni1000	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-40A0-9000-000	24,39 €
RTF1 NiTK	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-40A1-0000-000	24,39 €
RTF1 LM235Z	LM235Z (TCR = 10 mV/K; 2,73 V at 0 °C), KP10	1101-40A2-1000-000	22,81 €
RTF1 NTC1,8K	NTC 1.8K	1101-40A1-2000-000	20,78 €
RTF1 NTC10K	NTC 10K	1101-40A1-5000-000	20,78 €
RTF1 NTC20K	NTC 20K	1101-40A1-6000-000	20,78 €
Extra charge:	Stainless steel housing optional Other sensors optional		104,46 € on request

Dimensional drawing

Housing **Baldur 1**
(only one potentiometer possible)

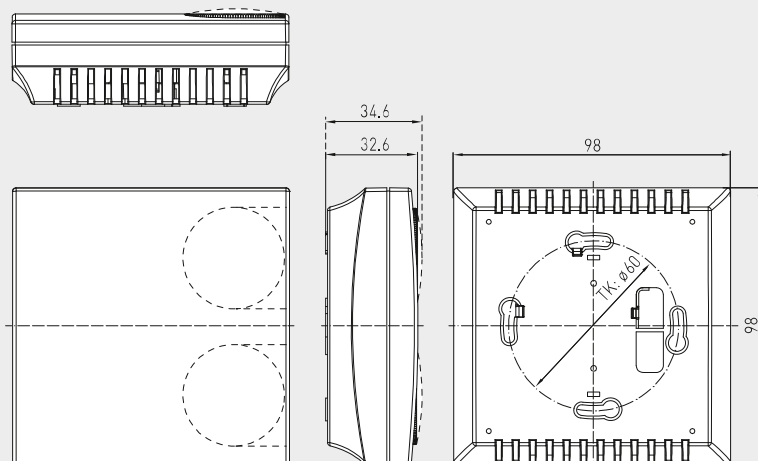


RTF
(Baldur 1)



Dimensional drawing

Housing **Baldur 2**
(one or two potentiometers possible)

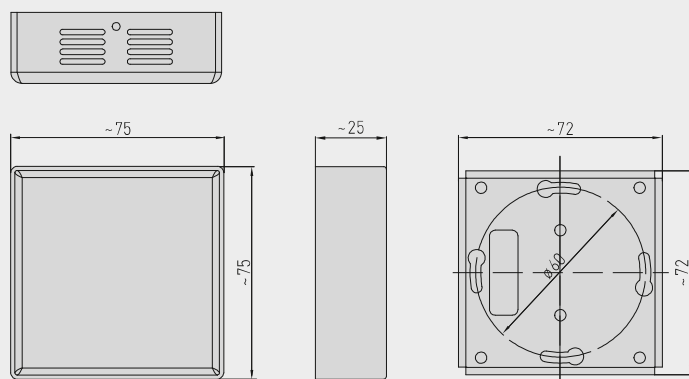


RTF
(Baldur 2)



Dimensional drawing

Housing stainless steel



RTF
(stainless steel)





Room temperature sensors and measuring transducers,
on-wall, different versions

TECHNICAL DATA	
Measuring ranges:	−30...+70 °C (passive sensors) and 0...+50 °C (for U-variant)
Sensor:	for types, see table
Potentiometer:	standard 1kΩ, max. 0.1 W other ratings optional on request, e. g. 100 Ω, 2.5 kΩ, 5 kΩ, 10 kΩ, (optional potentiometer 0...10 V, linear), with angle of rotation limiter
Turn switch:	max. 24 V AC / DC, max. 130 mA, up to 5 steps (0, Auto, I, II, III), with angle of rotation limiter
Rocker switch:	max. 24 V AC / DC, max. 130 mA
Push-buttons:	normally open contact, max. 24 V DC, max. 10 mA
LEDs:	max. 24 V DC (optional max. 24 V AC), standard green (optional red, yellow, or two-colour)
Housing:	plastic, ABS, pure white (similar to RAL 9010), (optional stainless steel V2A (1.4301))
Dimensions:	85 x 85 x 27 mm (Baldur 1) Standard 98 x 98 x 33 mm (Baldur 2) 75 x 75 x 25 mm (stainless steel V2A (1.4301))
Installation:	wall mounting or on in-wall flush box Ø 55 mm, base with 4-hole for mounting on vertically or horizontally installed in-wall flush boxes for cable entry from the back, with predetermined breaking point for on-wall cable entry from top / bottom in case of plain on-wall installation
Electrical connection:	0.14 - 1.5 mm² via terminal screws, on safety extra-low voltage max. 24 V DC only
Humidity:	max. 90 % r. H., non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP 30 (according to EN 60 529)
Lettering:	standard is swelling arrow with centre position, unfilled (optional special printing – see last chapter "Accessories")
ACCESSORIES	see last chapter

Potentiometer and
turn switch with
limited angle of rotation

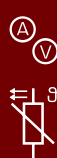




S+S REGELTECHNIK

THERMASGARD® RTF xx

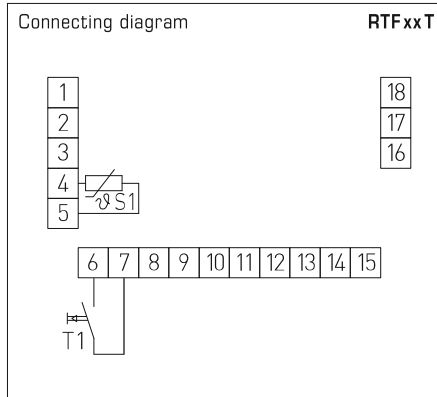
Room temperature sensors and measuring transducers,
on-wall, different versions



RTF xx T

(Baldur 1)

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



THERMASGARD® RTFxxT Room temperature sensors

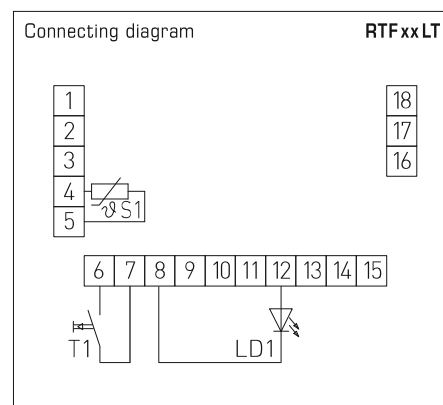
Type/WG01	Sensor / Output	Item No.	Price
RTF xx T	passive	IP30 (-30...+70 °C)	
RTF Pt100 T	Pt100 (according to DIN EN 60 751, class B)	1101-40A0-1617-000	42,43 €
RTF Pt1000 T	Pt1000 (according to DIN EN 60 751, class B)	1101-40A0-5617-000	42,43 €
RTF Ni1000 T	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-40A0-9617-000	44,13 €
RTF NiTK T	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-40A1-0617-000	45,23 €
RTF LM235Z T	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-40A2-1617-000	44,74 €
RTF NTC1,8K T	NTC 1.8 K	1101-40A1-2617-000	44,99 €
RTF NTC10K T	NTC 10K	1101-40A1-5617-000	41,83 €
RTF NTC20K T	NTC 20K	1101-40A1-6617-000	41,83 €



RTF xx LT

(Baldur 1)

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



THERMASGARD® RTFxxLT Room temperature sensors

Type/WG01	Sensor / Output	Item No.	Price
RTF xx LT	passive	IP30 (-30...+70 °C)	
RTF Pt100 L T	Pt100 (according to DIN EN 60 751, class B)	1101-40A0-1593-002	44,85 €
RTF Pt1000 L T	Pt1000 (according to DIN EN 60 751, class B)	1101-40A0-5593-002	46,49 €
RTF Ni1000 L T	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-40A0-9593-002	46,81 €
RTF NiTK L T	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-40A1-0593-002	50,25 €
RTF LM235Z L T	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-40A2-1593-002	45,90 €
RTF NTC1,8K L T	NTC 1.8 K	1101-40A1-2593-002	49,96 €
RTF NTC10K L T	NTC 10K	1101-40A1-5593-002	45,28 €
RTF NTC20K L T	NTC 20K	1101-40A1-6593-002	45,28 €

Room temperature sensors and measuring transducers,
on-wall, different versions

S+S REGELTECHNIK

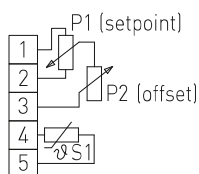


RTF xx P
RTF xx PU
RTM-U PU
(Baldur 1)

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

Connecting diagram

RTFxx P

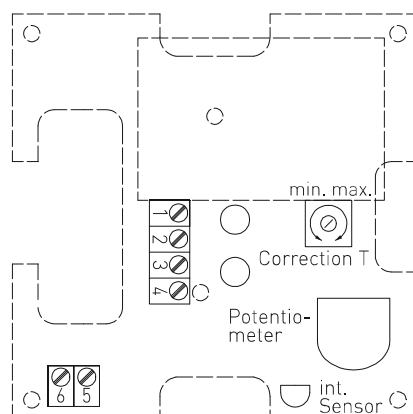


18
17
16

6 7 8 9 10 11 12 13 14 15

Circuit diagram

RTM-U PU Display



- 1 UB+ supply voltage 24V AC/DC
- 2 Output temperature 0-10V
- 3 Output potentiometer 0-10V
- 4 UB- GND

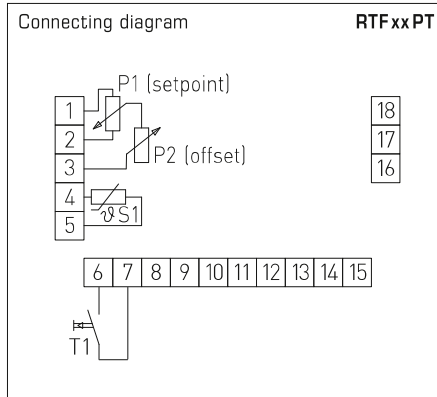


THERMASGARD® RTF xx P Room temperature sensors

Type / WG01	Sensor / Output	Display	Item No.	Price
RTF xx P	passive		IP30 (-30...+70 °C)	
RTF Pt100 P	Pt100 (according to DIN EN 60 751, class B)		1101-40A0-1001-345	44,85 €
RTF Pt1000 P	Pt1000 (according to DIN EN 60 751, class B)		1101-40A0-5001-345	46,07 €
RTF Ni1000 P	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)		1101-40A0-9001-345	47,29 €
RTF NiTK P	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000		1101-40A1-0001-345	47,91 €
RTF LM235Z P	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10		1101-40A2-1001-345	46,07 €
RTF NTC1,8K P	NTC 1.8 K		1101-40A1-2001-345	46,19 €
RTF NTC10K P	NTC 10K		1101-40A1-5001-345	44,85 €
RTF NTC20K P	NTC 20K		1101-40A1-6001-345	44,85 €
RTF xx PU	passive / active		IP30 (0...+50 °C)	
RTF Pt1000 PU	Pt1000 / 0 - 10 V (potentiometer)*		1101-40A0-5004-345	106,69 €
RTF Pt1000 PU	Pt1000 / 0 - 10 V (potentiometer, central position)*		1101-40A0-5004-642	106,69 €
RTF Pt1000 PU	Pt1000 / 0 - 10 V (potentiometer, marking points)*		1101-40A0-5004-050	106,69 €
RTM PU	aktive		IP30 (0...+50 °C)	
RTM-U PU	0 - 10 V (temperature and potentiometer)*		1101-41A1-0004-346	139,80 €
RTM-U PU LCD	0 - 10 V (temperature and potentiometer)*	■	1101-41A1-1004-346	236,79 €
For special orders please specify:		Ohm rating of potentiometer (standard is 1kOhm; optional 100 Ohm, 2.5kOhm, 5kOhm, 10kOhm, 0-10 V), type of swelling arrow* (standard = wedge-shaped, optional with central position or marking points) and differing specific wiring requests		


RTF xx PT

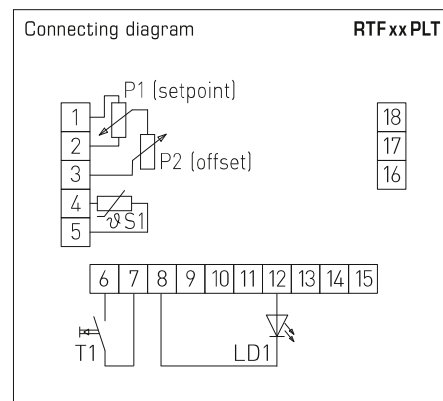
(Baldur 1)

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

THERMASGARD® RTF xx PT Room temperature sensors

Type / WG01	Sensor / Output	Item No.	Price
RTF xx PT	passive	IP30 (-30...+70 °C)	
RTF Pt100 P T	Pt100 (according to DIN EN 60 751, class B)	1101-40A0-1021-345	49,60 €
RTF Pt1000 P T	Pt1000 (according to DIN EN 60 751, class B)	1101-40A0-5021-345	45,58 €
RTF Ni1000 P T	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-40A0-9021-345	51,78 €
RTF NiTK P T	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-40A1-0021-345	53,96 €
RTF LM235Z P T	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-40A2-1021-345	53,35 €
RTF NTC1,8K P T	NTC 1.8 K	1101-40A1-2021-345	53,46 €
RTF NTC10K P T	NTC 10K	1101-40A1-5021-345	52,08 €
RTF NTC20K P T	NTC 20K	1101-40A1-6021-345	52,08 €
RTF xx PUT	passive / active	IP30 (0...+50 °C)	
RTF Pt1000 PU T	Pt1000 / 0- 10 V (potentiometer)	1101-40B0-5033-345	114,09 €


RTF xx PLT

(Baldur 1)

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

THERMASGARD® RTF xx PLT Room temperature sensors

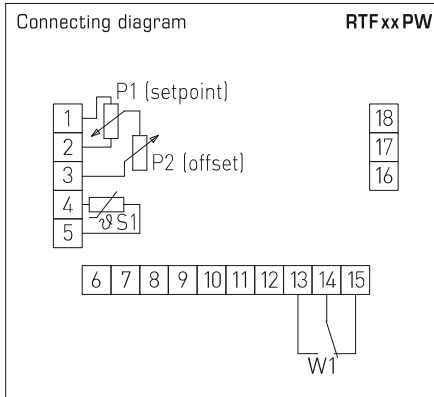
Type / WG01	Sensor / Output	Item No.	Price
RTF xx PLT	passive	IP30 (-30...+70 °C)	
RTF Pt100 P L T	Pt100 (according to DIN EN 60 751, class B)	1101-40A0-1663-347	63,22 €
RTF Pt1000 P L T	Pt1000 (according to DIN EN 60 751, class B)	1101-40A0-5663-347	66,39 €
RTF Ni1000 P L T	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-40A0-9663-347	66,69 €
RTF NiTK P L T	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-40A1-0663-347	69,58 €
RTF LM235Z P L T	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-40A2-1663-347	65,11 €
RTF NTC1,8K P L T	NTC 1.8 K	1101-40A1-2663-347	69,10 €
RTF NTC10K P L T	NTC 10K	1101-40A1-5663-347	63,22 €
RTF NTC20K P L T	NTC 20K	1101-40A1-6663-347	63,22 €
RTF xx PULT	passive / active	IP30 (-30...+70 °C)	
RTF Pt1000 PU L T	Pt1000 / 0- 10 V (potentiometer)	1101-40B0-5669-347	130,95 €

Room temperature sensors and measuring transducers,
on-wall, different versions



RTF xx PW
(Baldur 1)

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



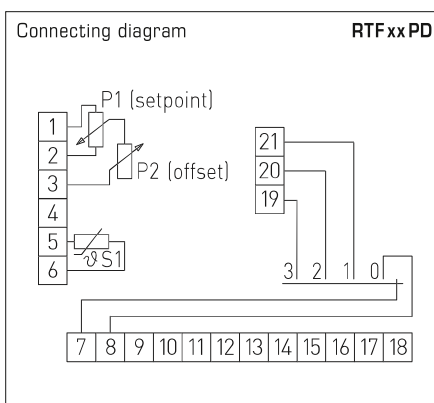
THERMASGARD® RTF xx PW Room temperature sensors

Type / WG01	Sensor / Output	Item No.	Price
RTF xx PW	passive	IP30 (-30...+70 °C)	
RTF Pt100 P W	Pt100 (according to DIN EN 60 751, class B)	1101-40A0-1061-348	50,32 €
RTF Pt1000 P W	Pt1000 (according to DIN EN 60 751, class B)	1101-40A0-5061-348	52,13 €
RTF Ni1000 P W	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-40A0-9061-348	52,63 €
RTF NiTK P W	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-40A1-0061-348	54,56 €
RTF LM235Z P W	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10	1101-40A2-1061-348	53,96 €
RTF NTC1,8K P W	NTC 1.8K	1101-40A1-2061-348	54,45 €
RTF NTC10K P W	NTC 10K	1101-40A1-5061-348	52,76 €
RTF NTC20K P W	NTC 20K	1101-40A1-6061-348	52,76 €
RTF xx PUW	passive / active	IP30 (0...+50 °C)	
RTF Pt1000 PU W2	Pt1000 / 0 - 10 V (potentiometer)	1101-40B0-5067-348	114,70 €



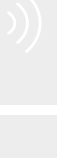
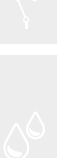
RTF xx PD
(Baldur 2)

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



THERMASGARD® RTF xx PD Room temperature sensors

Type / WG01	Sensor / Output	Item No.	Price
RTF xx PD	passive	IP30 (-30...+70 °C)	
RTF Pt100 P D4	Pt100 (according to DIN EN 60 751, class B)	1101-40B0-1007-349	50,81 €
RTF Pt1000 P D4	Pt1000 (according to DIN EN 60 751, class B)	1101-40B0-5007-349	52,68 €
RTF Ni1000 P D4	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-40B0-9007-349	52,97 €
RTF NiTK P D4	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-40B1-0007-349	55,17 €
RTF LM235Z P D4	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10	1101-40B2-1007-349	54,56 €
RTF NTC1,8K P D4	NTC 1.8K	1101-40B1-2007-349	54,67 €
RTF NTC10K P D4	NTC 10K	1101-40B1-5007-349	53,30 €
RTF NTC20K P D4	NTC 20K	1101-40B1-6007-349	53,30 €
RTF xx PUD	passive / active	IP30 (0...+50 °C)	
RTF Pt1000 PU D4	Pt1000 / 0 - 10 V (potentiometer)	1101-40B0-5019-349	115,17 €



Operating elements Baldur 1	Possible combinations	1	2	3	4	5	6
Sensor 1		•	•	•	•	•	•
Sensor 2		•		•			
Sensor 3 LM235Z with calibrating pot (4-wire)		•			•	•	
Potentiometer 1 with / without series resistor		•	•	•	•		
Potentiometer 2 with calibrating pot						•	•
LED 1 (max. one LED)							
LED 2 (max. two LEDs)							
LED 3 (max. three LEDs)							
LED 4 (max. four LEDs)		•	•	•	•	•	•
Rocker switch			•	•			•
Push-button 1 (max. one button)		•		•		•	•
Push-button 2 (max. two buttons)			•		•		

With 4-conductor-circuitry, Sensor 3 is used, thus a maximum of 3 LEDs is possible.

LM235Z with calibrating pot = calibration of sensor output signal.

Satchwell switching possible with sensor 2.

Turn switches are not possible with Baldur 1!

Please specify in your order:

Ohm rating of potentiometer

(e. g. 100 Ohm, 1 kOhm, 2.5 kOhm, 5 kOhm, 10 kOhm)

Colour of LED

(e. g. green, red, yellow)

Printing, form of swelling arrow

(wedge-shaped or with central position, points or numerical scale)

Requested features regarding

operating and / or display elements and wiring

We offer special designs on request in written form including approval drawing.

Special printing:

See last chapter

"Accessories"

Operating elements Baldur 2	Possible combinations	1	2	3	4	5	6	7	8	9	10
Sensor 1		•	•	•	•	•	•	•	•	•	•
Sensor 2 LM235Z with calibrating pot		•						•			
Sensor 3 with heat sink (4-wire)											
Potentiometer 1 (at bottom) with / without series resistor		•	•		•		•	•	•		•
Potentiometer 2 (at top)			•						•		
Key switch (at bottom)				•						•	
Turn switch 1 (at top) with / without series resistor					•						•
Turn switch 2 (at bottom)						•					
LED 1 (max. one LED)											
LED 2 (max. two LEDs)											
LED 3 (max. three LEDs)			•						•		
LED 4 (max. four LEDs)					•						•
LED 5 (max. five LEDs)		•		•		•		•		•	
LED 6 (max. six LEDs)							•				
Rocker switch		•	•	•	•	•	•				
Push-button 1 (max. one button)											
Push-button 2 (max. two buttons)		•	•	•		•	•				•
Push-button 3 (max. three buttons)											
Push-button 4 (max. four buttons)								•	•	•	

Sensor 3 can also be used instead of sensor 1.

LM235Z with calibrating pot = calibration of sensor output signal.

In the case cascade connections with turn switch 1, LEDs are not possible!

With the Baldur 2 housing, only one operating element is possible at each of the positions "[at bottom]" and "[at top]"!

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





S+S REGELTECHNIK

THERMASGARD® FSTF

Configuration variants of room operating units
Room temperature sensors and measuring transducers
in-wall, panel switch programme

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.

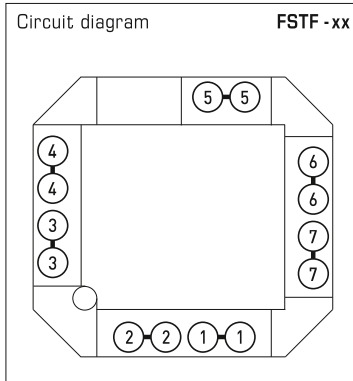
It is used in non-aggressive, dust-free environments, in refrigeration, air conditioning and clean room technology, and in interior rooms, such as living rooms, offices, hotels, etc.

TECHNICAL DATA

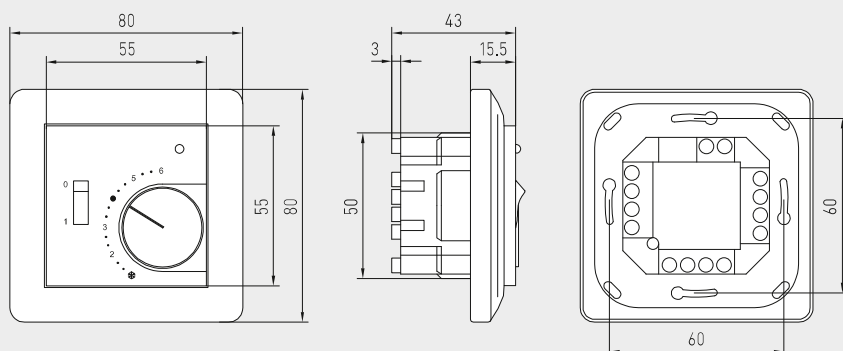
Measuring ranges:	-30...+60 °C
Sensor / output:	see table, assembled on board, passive
Range suppression:	in the button
Testing current:	< 0.6 mA (Pt1000) < 1.0 mA (Pt100) < 0.3 mA (Ni1000, Ni1000 TK5000) < 2.0 mW (NTC xx) 400 µA...5 mA (LM235Z)
Potentiometers:	standard 1 kΩ, max. 0.1 W (other ratings optional on request, e.g. 100 Ω, 2.5 kΩ, 5 kΩ, 10 kΩ optional 0-10 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 Ø 55 mm
Electrical connection:	FSTF-1 via screw terminals 0.14 - 1.5 mm², FSTF-xx via plug terminals 1.0 - 2.5 mm², on safety extra-low voltage only, max. 42 V AC, 60 V DC
Humidity:	max. 90 % r.H., non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP 20 (according to EN 60 529)

SWITCH PROGRAMMES

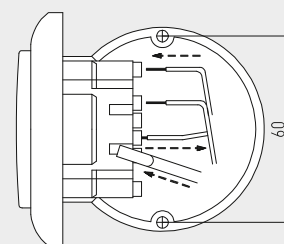
Manufacturer:	GIRA System 55 Standard (other switch programmes, manufacturers, and prices upon request)
Housing:	plastic, colour pure white glossy (similar to RAL 9010) (other colours are possible on request with colour variants depending on the respective switch programme)



Dimensional drawing

FSTF - xx

Installation scheme

FSTF - xx



S+S REGELTECHNIK

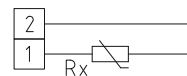
THERMASGARD® FSTF 1

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

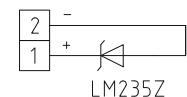


FSTF 1
Standard version
with sensor

1x two-wire connection
Standard



1x two-wire connection
LM235Z (KP10)

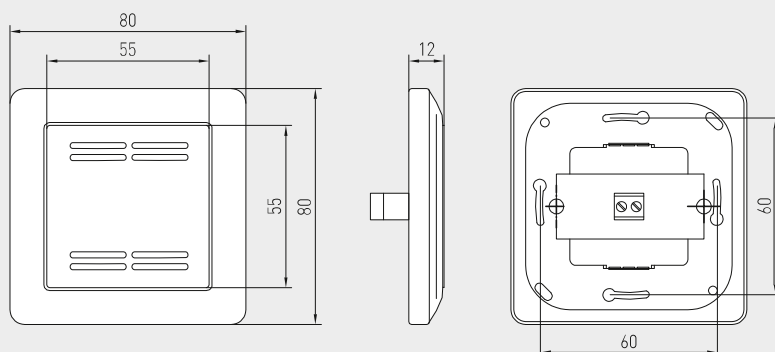


THERMASGARD® FSTF 1 Room temperature sensors

Type / WG01	Sensor / Output	Item No.	Price
FSTF1	passive	IP20 (-30...+60 °C)	
FSTF1 Pt100	Pt100 (according to DIN EN 60 751, class B)	1101-5020-1000-162	48,37 €
FSTF1 Pt1000	Pt1000 (according to DIN EN 60 751, class B)	1101-5020-5000-162	48,37 €
FSTF1 Ni1000	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-5020-9000-162	49,82 €
FSTF1 NiTK	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-5021-0000-162	52,13 €
FSTF1 LM235Z	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-5022-1000-162	48,50 €
FSTF1 NTC1,8K	NTC 1.8 K	1101-5021-2000-162	47,91 €
FSTF1 NTC10K	NTC 10K	1101-5021-5000-162	47,41 €
FSTF1 NTC20K	NTC 20K	1101-5021-6000-162	47,41 €

Dimensional drawing

FSTF - 1

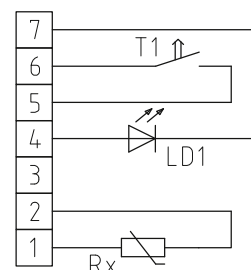


Room temperature sensors
in-wall, panel switch programme,
different versions

**FSTFxxLT**

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

Connecting diagram

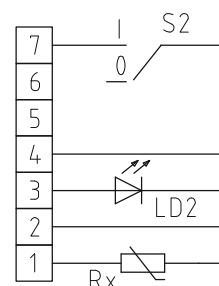
FSTFxxLT**THERMASGARD® FSTFxxLT** Room temperature sensors

Type / WG01	Sensor / Output	Item No.	Price
FSTFxxLT	passive	IP20 (-30...+60 °C)	
FSTF Pt100 L T	Pt100 (according to DIN EN 60 751, class B)	1101-5020-1593-350	63,67 €
FSTF Pt1000 L T	Pt1000 (according to DIN EN 60 751, class B)	1101-5020-5593-350	63,67 €
FSTF Ni1000 L T	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-5020-9593-350	65,47 €
FSTF NiTK L T	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-5021-0593-350	65,47 €
FSTF LM235Z L T	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10	1101-5022-1593-350	64,26 €
FSTF NTC1,8K L T	NTC 1.8K	1101-5021-2593-350	63,67 €
FSTF NTC10K L T	NTC 10K	1101-5021-5593-350	63,05 €
FSTF NTC20K L T	NTC 20K	1101-5021-6593-350	63,05 €

**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.	Price
FSTFxxLD2	passive	IP20 (-30...+60 °C)	
FSTF Pt100 D2 L	Pt100 (according to DIN EN 60 751, class B)	1101-5020-1631-351	72,86 €
FSTF Pt1000 D2 L	Pt1000 (according to DIN EN 60 751, class B)	1101-5020-5631-351	72,86 €
FSTF Ni1000 D2 L	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-5020-9631-351	75,16 €
FSTF NiTK D2 L	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-5021-0631-351	75,16 €
FSTF LM235Z D2 L	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10	1101-5022-1631-351	73,35 €
FSTF NTC1,8K D2 L	NTC 1.8K	1101-5021-2631-351	73,35 €
FSTF NTC10K D2 L	NTC 10K	1101-5021-5631-351	72,75 €
FSTF NTC20K D2 L	NTC 20K	1101-5021-6631-351	72,75 €



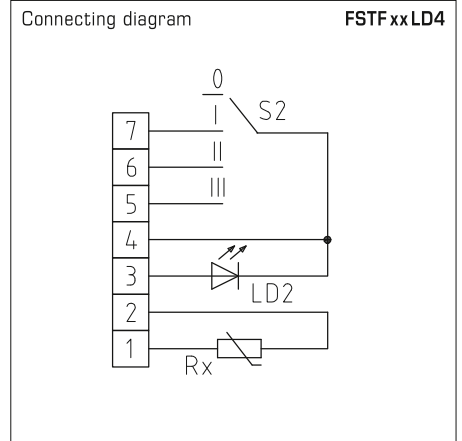
S+S REGELTECHNIK

THERMASGARD® FSTF xx

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



FSTFxxLD4
Version with sensor,
LED (green) and turn switch (4-step)
(max. 24 V AC / DC, max. 130 mA)

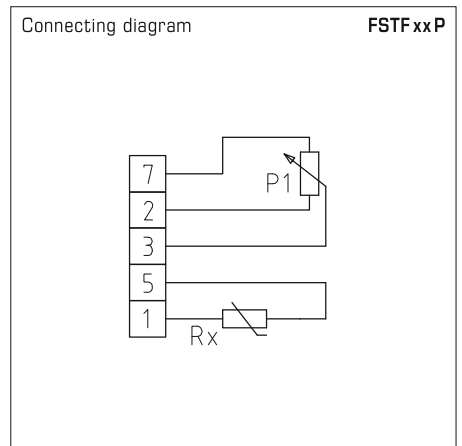


THERMASGARD® FSTFxxLD4 Room temperature sensors

Type / WG01	Sensor / Output	Item No.	Price
FSTFxxLD4	passive	IP20 (-30...+60 °C)	
FSTF Pt100 D4 L	Pt100 (according to DIN EN 60751, class B)	1101-5020-1643-352	75,79 €
FSTF Pt1000 D4 L	Pt1000 (according to DIN EN 60751, class B)	1101-5020-5643-352	75,79 €
FSTF Ni1000 D4 L	Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K)	1101-5020-9643-352	77,60 €
FSTF NiTK D4 L	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-5021-0643-352	77,60 €
FSTF LM235Z D4 L	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-5022-1643-352	76,39 €
FSTF NTC1,8K D4 L	NTC 1.8K	1101-5021-2643-352	75,79 €
FSTF NTC10K D4 L	NTC 10K	1101-5021-5643-352	75,16 €
FSTF NTC20K D4 L	NTC 20K	1101-5021-6643-352	75,16 €



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



THERMASGARD® FSTFxxP Room temperature sensors

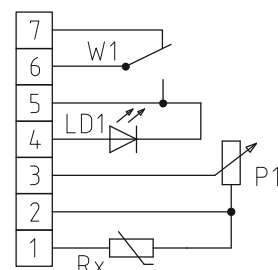
Type / WG01	Sensor / Output	Item No.	Price
FSTFxxP	passive	IP20 (-30...+60 °C)	
FSTF Pt100 P	Pt100 (according to DIN EN 60751, class B)	1101-5020-1001-282	78,20 €
FSTF Pt1000 P	Pt1000 (according to DIN EN 60751, class B)	1101-5020-5001-162	78,20 €
FSTF Ni1000 P	Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K)	1101-5020-9001-162	78,94 €
FSTF NiTK P	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-5021-0001-162	81,60 €
FSTF LM235Z P	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-5022-1001-162	74,56 €
FSTF NTC1,8K P	NTC 1.8K	1101-5021-2001-162	75,79 €
FSTF NTC10K P	NTC 10K	1101-5021-5001-162	74,56 €
FSTF NTC20K P	NTC 20K	1101-5021-6001-162	74,56 €

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

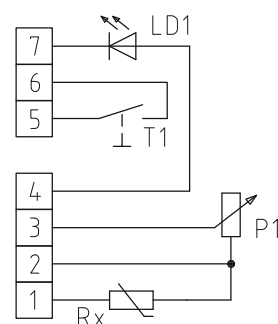
FSTFxxPLW**THERMASGARD® FSTFxxPLW** Room temperature sensors

Type/WG01	Sensor / Output	Item No.	Price
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	99,24 €
FSTF Pt1000 P L W	Pt1000 (according to DIN EN 60 751, class B)	1101-5020-5655-353	101,73 €
FSTF Ni1000 P L W	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-5020-9655-353	102,33 €
FSTF NiTK P L W	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-5021-0655-353	104,80 €
FSTF LM235Z P L W	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10	1101-5022-1655-353	99,85 €
FSTF NTC1,8K P L W	NTC 1.8K	1101-5021-2655-353	105,30 €
FSTF NTC10K P L W	NTC 10K	1101-5021-5655-353	99,24 €
FSTF NTC20K P L W	NTC 20K	1101-5021-6655-353	99,24 €

**FSTFxxPLT**

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

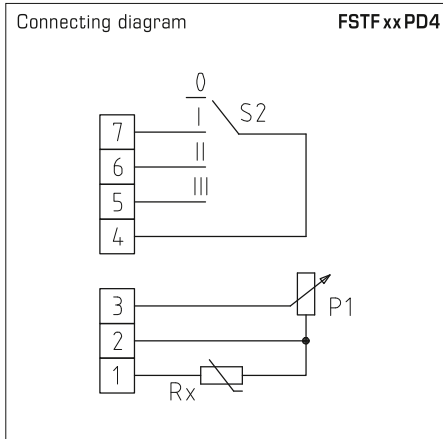
Connecting diagram

FSTFxxPLT**THERMASGARD® FSTFxxPLT** Room temperature sensors

Type/WG01	Sensor / Output	Item No.	Price
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	99,18 €
FSTF Pt1000 P L T	Pt1000 (according to DIN EN 60 751, class B)	1101-5020-5663-162	101,67 €
FSTF Ni1000 P L T	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K)	1101-5020-9663-350	102,27 €
FSTF NiTK P L T	Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000	1101-5021-0663-350	104,75 €
FSTF LM235Z P L T	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10	1101-5022-1663-350	99,78 €
FSTF NTC1,8K P L T	NTC 1.8K	1101-5021-2663-350	105,24 €
FSTF NTC10K P L T	NTC 10K	1101-5021-5663-350	99,18 €
FSTF NTC20K P L T	NTC 20K	1101-5021-6663-350	99,18 €



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

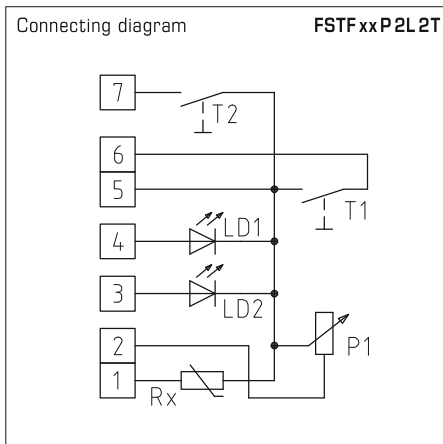


THERMASGARD® FSTFxxPD4 Room temperature sensors

Type / WG01	Sensor / Output	Item No.	Price
FSTFxxPD4	passive	IP20 (-30...+60 °C)	
FSTF Pt100 P D4	Pt100 (according to DIN EN 60751, class B)	1101-5020-1007-354	102,28 €
FSTF Pt1000 P D4	Pt1000 (according to DIN EN 60751, class B)	1101-5020-5007-354	104,76 €
FSTF Ni1000 P D4	Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K)	1101-5020-9007-354	105,38 €
FSTF NiTK P D4	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-5021-0007-354	107,87 €
FSTF LM235Z P D4	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-5022-1007-354	102,28 €
FSTF NTC1,8K P D4	NTC 1.8K	1101-5021-2007-354	104,12 €
FSTF NTC10K P D4	NTC 10K	1101-5021-5007-354	101,67 €
FSTF NTC20K P D4	NTC 20K	1101-5021-6007-354	101,67 €



FSTFxxP2L2T
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® FSTFxxP2L2T Room temperature sensors

Type / WG01	Sensor / Output	Item No.	Price
FSTFxxP2L2T	passive	IP20 (-30...+60 °C)	
FSTF Pt100 P 2L 2T	Pt100 (according to DIN EN 60751, class B)	1101-5020-1672-256	104,75 €
FSTF Pt1000 P 2L 2T	Pt1000 (according to DIN EN 60751, class B)	1101-5020-5672-256	108,14 €
FSTF Ni1000 P 2L 2T	Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K)	1101-5020-9672-256	111,66 €
FSTF NiTK P2L2T	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-5021-0672-256	113,72 €
FSTF LM235Z P 2L 2T	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-5022-1672-256	107,18 €
FSTF NTC1,8K P 2L 2T	NTC 1.8K	1101-5021-2672-256	110,59 €
FSTF NTC10K P 2L 2T	NTC 10K	1101-5021-5672-256	105,24 €
FSTF NTC20K P 2L 2T	NTC 20K	1101-5021-6672-256	105,24 €

In-ceiling temperature sensors with passive output

THERMASGARD® DTF is a small in-ceiling resistance thermometer with passive output for in-wall installation, e.g. in plasterboard walls or suspended ceilings. The in-ceiling temperature sensor DTF is preferably installed in ceilings and walls, blends in seamlessly with the overall architectural design and detects the temperature at the surface. The connecting head is pluggable for quick, easy mounting.

TECHNICAL DATA

Measuring range:	-20...+90 °C
Sensors / output:	see table, passive
Connection type:	4-wire connection terminal 1 / 2: + (marked red, wire colours: yellow, brown) terminal 3 / 4: - (marked black, wire colours: white, green)
Testing current:	< 0.6 mA (Pt1000) < 1.0 mA (Pt100) < 0.3 mA (Ni1000, Ni1000 TK5000) < 2.0 mW (NTC xx) 400 µA...5 mA (LM235Z)
Connecting head:	plastic, material polycarbonate (PC), colour white (can be painted as an option), pluggable
Connecting cable:	PVC, LiYY, 4 x 0.14 mm², KL = approx. 2 m
Process connection:	inside suspended ceiling, ceiling cutout Ø = 30 mm, cover Ø = < 35 mm
Insulating resistance:	≥ 100 MΩ, at +20 °C (500V DC)
Humidity:	< 95 % r.H., non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP 30 (according EN 60 529) Sensor in the built-in state

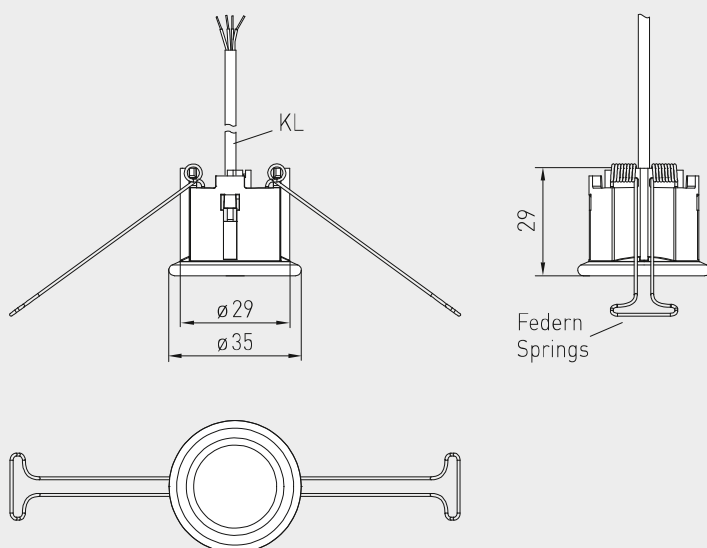
DTF

Connecting head,
pluggable

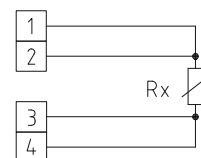


Dimensional drawing

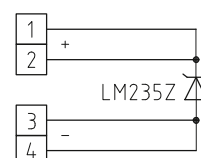
DTF



1x four-wire connection standard

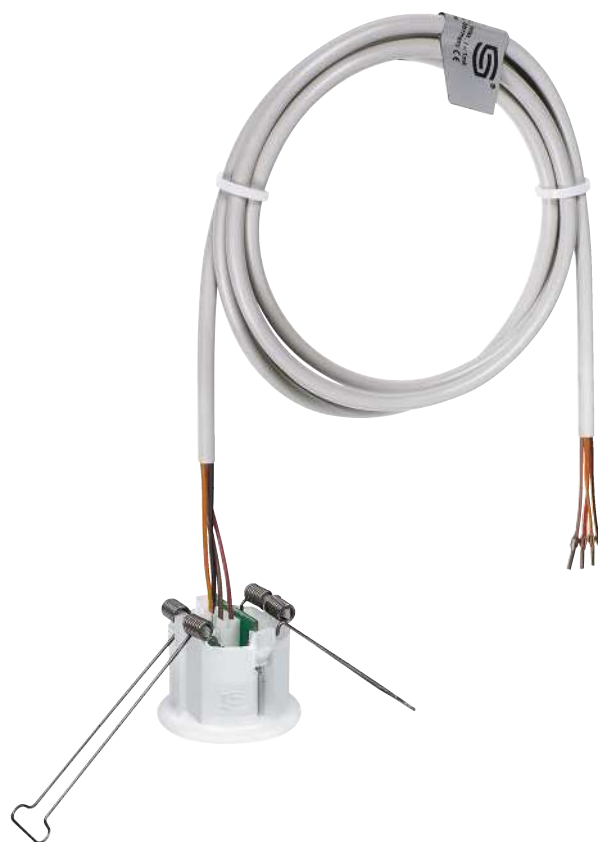


1x four-wire connection LM235Z (KP 10)





DTF



THERMASGARD® DTF In-ceiling temperature sensors			
Type / WG03	Sensor / Output	Item No.	Price
DTF		IP30	
DTF Pt100	Pt100 (according to DIN EN 60 751, class B)	1101-60C0-1003-000	38,80 €
DTF Pt1000	Pt1000 (according to DIN EN 60 751, class B)	1101-60C0-5003-000	38,80 €
DTF Ni1000	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-60C0-9003-000	38,55 €
DTF NiTK	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-60C1-0003-000	42,33 €
DTF LM235Z	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-60C2-1003-000	39,70 €
DTF NTC1,8K	NTC 1.8K	1101-60C1-2003-000	39,70 €
DTF NTC10K	NTC 10K	1101-60C1-5003-000	39,70 €
DTF NTC20K	NTC 20K	1101-60C1-6003-000	39,70 €
Note:	Other sensors optional	on request	



**HVAC & BYGNINGS-
AUTOMATIK**

VORES PRODUKTSORTIMENT INKLUDERER:



RUMFØLERE



RUMREGULATORER



TRÅDLØS - RUMFØLERE



TILBEHØR



TEMPERATUR AKTIV



TEMPERATUR PASSIV

VI FØRER PRODUKTER INDENFOR KATEGORIERNE:



AUTOMATIK



ELVARME



KØLEPROFILER

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