

Configuration variants

Room temperature sensors and measuring transducers, on-wall, series Frija I and Frija II

Enclosure 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 pushbuttons, switches, potentiometers, status indicators (LEDs) in residential, working, office and business facilities as well as in the industrial sector.

Here some design and configuration examples of variants that can be custom-made individually ...

DEVICES SERIES:

Frija I (85x91x27 mm)

Frija II (98x106x32 mm)

Frija lying horizontal



Frija I without operating elements



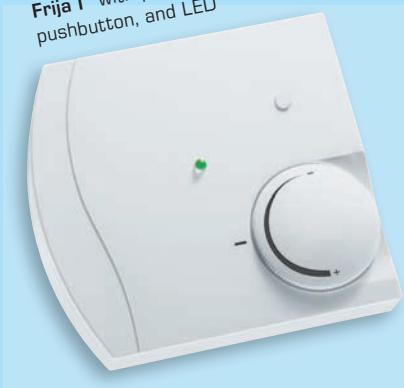
Frija I with display



Frija I with display and potentiometer



Frija I with potentiometer, pushbutton, and LED



Frija I with potentiometer and rocker switch



Frija I with potentiometer and pushbuttons



Frija I with potentiometer and LEDs



Frija I with potentiometer and LEDs



Frija I with potentiometer and LEDs



Frija II with display



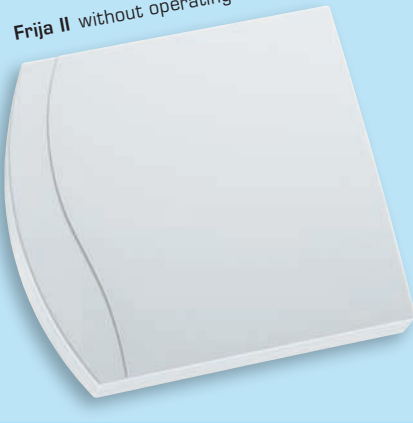
Frija II with display and potentiometer



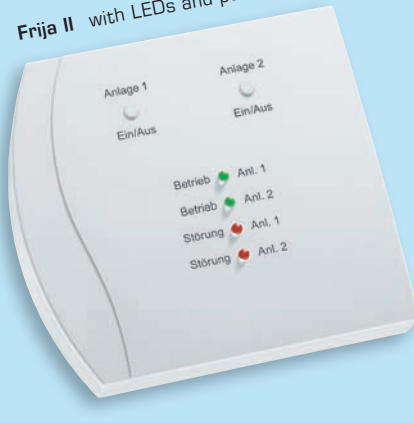
Frija II with display, potentiometer, and turn switch



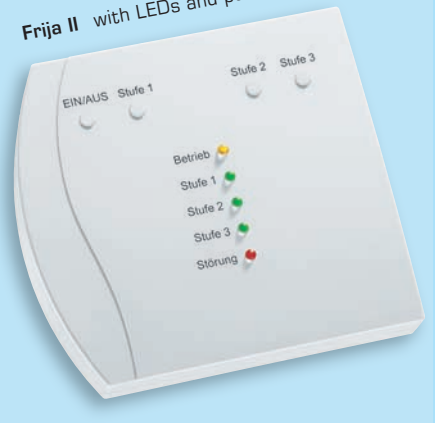
Frija II without operating elements



Frija II with LEDs and pushbuttons



Frija II with LEDs and pushbuttons



Frija II with potentiometer, turn switch, and LEDs



Frija II with potentiometer, pushbuttons, LEDs, and rocker switch



Frija II with potentiometer, turn switch, and LEDs



Frija II with potentiometer and turn switch



Frija II with potentiometer, turn switch, LEDs, and pushbuttons



Frija II with potentiometer, turn switch, LEDs, and pushbuttons



Colour variants

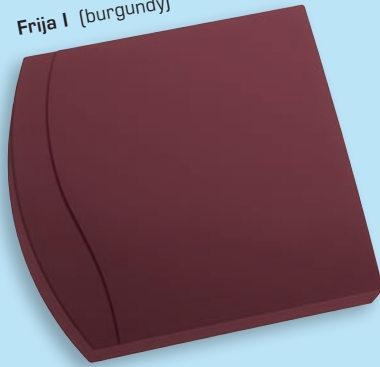
Room temperature sensors and measuring transducers, on-wall, series Frija I and Frija II



Frija I (black)



Frija I (burgundy)



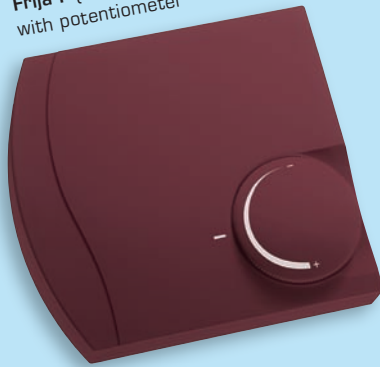
Frija I (beige)



Frija I (black) with potentiometer



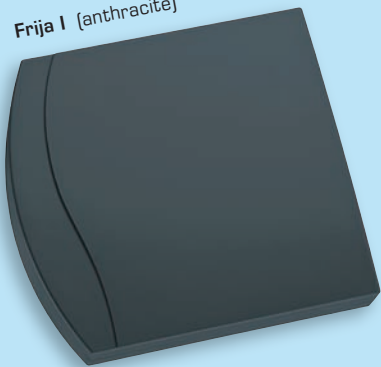
Frija I (burgundy) with potentiometer



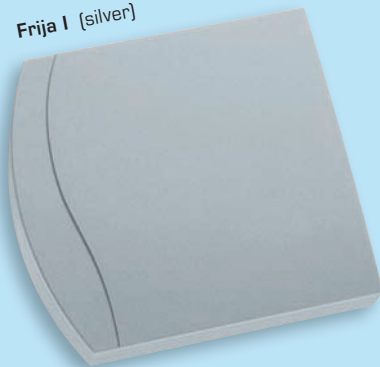
Frija I (beige) with potentiometer



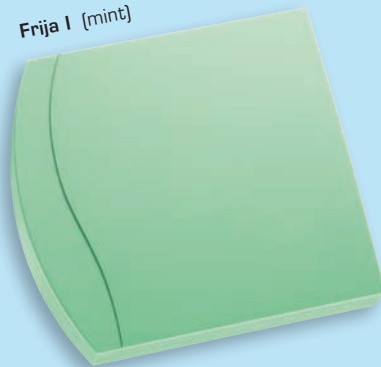
Frija I (anthracite)



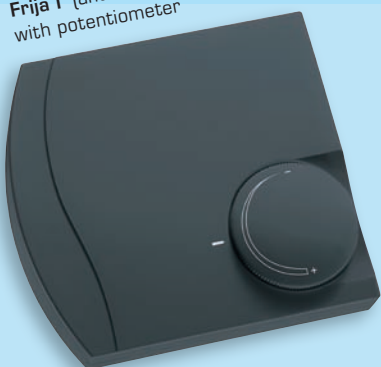
Frija I (silver)



Frija I (mint)



Frija I (anthracite) with potentiometer



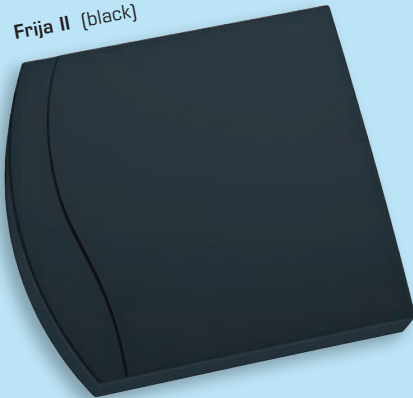
Frija I (silver) with potentiometer



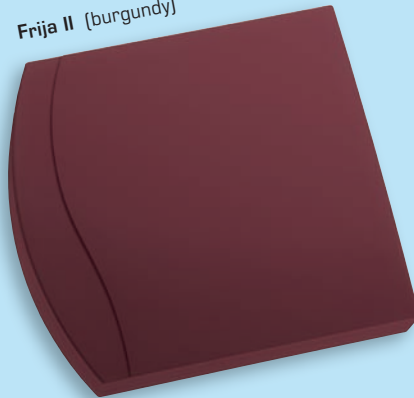
Frija I (mint) with potentiometer (black)



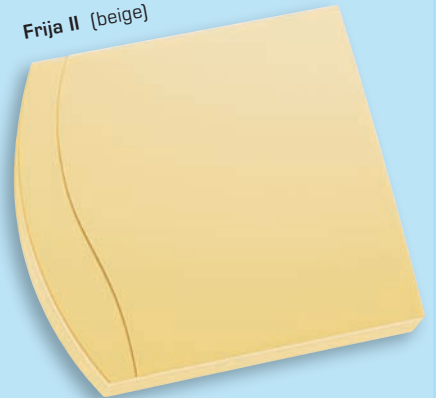
Frija II (black)



Frija II (burgundy)



Frija II (beige)



Frija II (black)
with potentiometer and turn switch



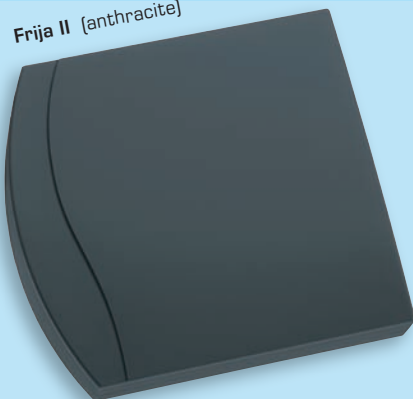
Frija II (black)
with potentiometer and turn switch



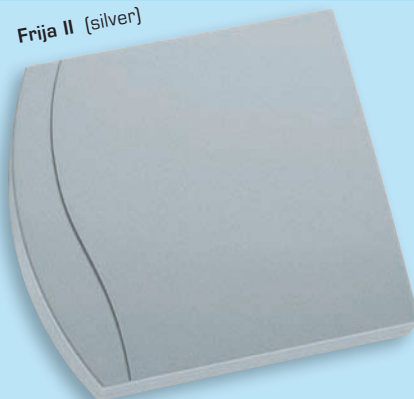
Frija II (black)
with potentiometer and turn switch



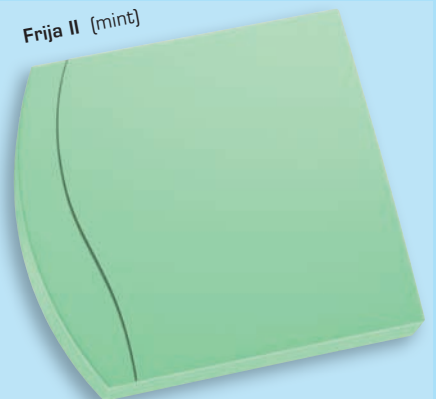
Frija II (anthracite)



Frija II (silver)



Frija II (mint)



Frija II (anthracite)
with potentiometer



Frija II (silver)
with turn switch



Frija II (black)
with potentiometer and turn switch (mint)



Room temperature measuring transducers, calibrateable, with multi-range switching and active output, series Frija I

RTM 1

Calibrateable room temperature measuring transducer THERMASGARD® RTM 1 with continuous output, optional with or without display for displaying the actual temperature in an elegant enclosure 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 enclosure made of stainless steel (top and bottom part are of stainless steel, the lid is screwed on), vandalism-secure version e.g. for schools, military barracks, and public buildings. This room temperature transmitter / residential room temperature sensor is used to detect /display temperatures in closed dry rooms, in apartments, in offices, supermarkets and business facilities.



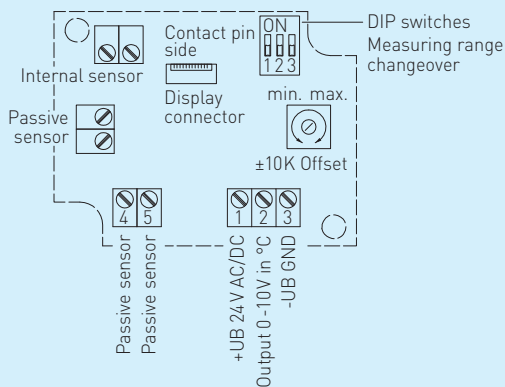
TECHNICAL DATA:

- Power supply:..... 24V AC/DC ±10% for output 0 -10V
15-36V DC for output 4...20mA
(depending on working resistance)
- Sensor:..... Pt1000, DIN EN 60751, class B
- Measuring range:..... **multi-range switching**
with 8 switchable measuring ranges,
see table (other ranges optional)
operating range -30...+70 °C
with manual zero point correction (±10K)
- Output: 0 -10V or 4...20mA
- Ambient temperature:..... measuring transducer -30...+70 °C
- Connection type:..... 2- or 3-wire connection
- Process connection: by screws
- Enclosure:..... plastic, material ABS,
colour pure white (similar RAL9010),
(optional stainless steel)
- Dimensions: 85 x 91 x 27 mm (Frija)
75 x 75 x 25 mm (stainless steel)
- Electrical connection:..... 0.14 - 1.5 mm² via terminal screws
- Installation: wall mounting or on in-wall flush box Ø55mm, 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
- Humidity: <95% r.H.,
non-precipitating air
- Protection class: III (according to EN 60730)
- Protection type:..... IP 30 (according to EN 60529)
- Standards: CE conformity, electromagnetic compatibility
according to EN 61326:2006,
according to EMC directive 2004 / 108 / EC
- Optional: 8-digit display, cutout 36x14 mm (WxH),
for displaying actual temperature
- Accessories:..... see last chapter

Connection*:
2-wire connection for devices
with /without display (not illuminated)
3-wire connection for devices
with illuminated display

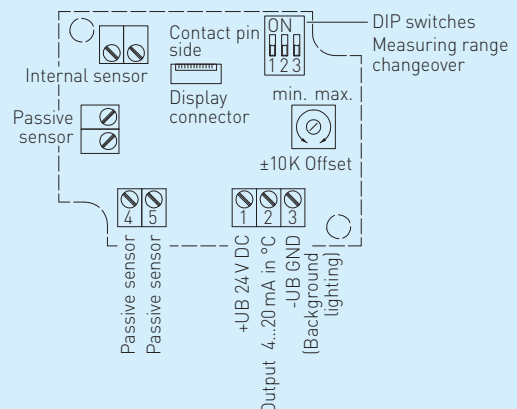
3-wire connection

RTM 1-U



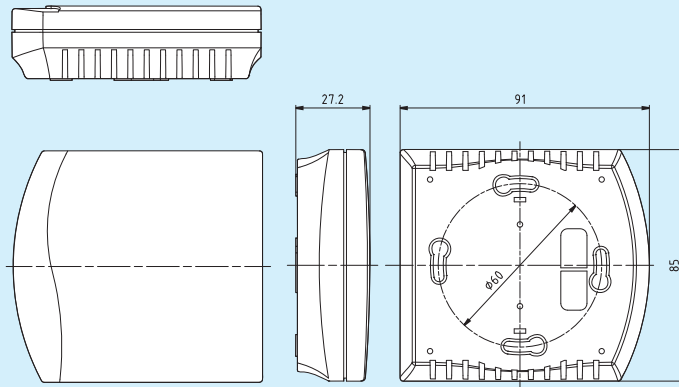
2- or 3-wire connection*

RTM 1-I



Dimensional drawing

Enclosure Frijal

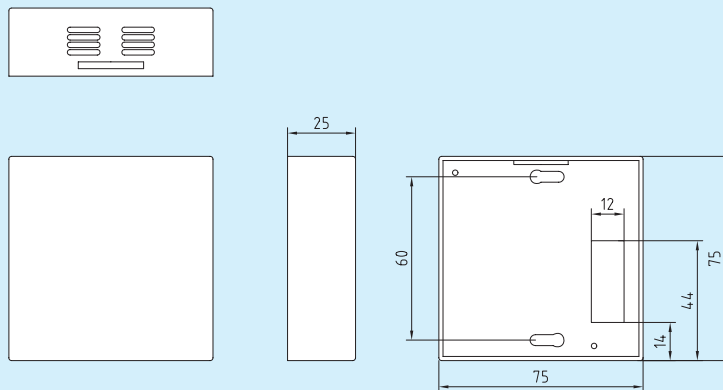


RTM 1 with display



Dimensional drawing

Enclosure stainless steel

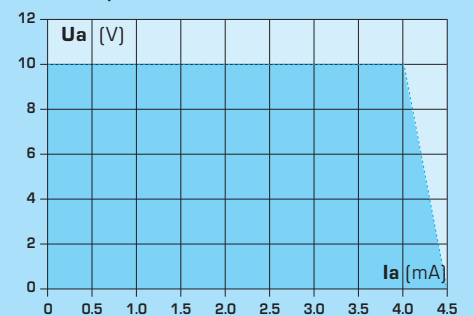


RTM 1 (stainless steel)



Measuring ranges (adjustable)	DIP 1	DIP 2	DIP 3
-20 °C ... +150 °C	ON	ON	ON
-50 °C ... +50 °C	OFF	ON	ON
-20 °C ... +80 °C	ON	OFF	ON
-30 °C ... +60 °C	OFF	OFF	ON
0 °C ... +40 °C	ON	ON	OFF
0 °C ... +50 °C (standard)	OFF	ON	OFF
0 °C ... +100 °C	ON	OFF	OFF
0 °C ... +150 °C	OFF	OFF	OFF

Dependency of output voltage on output current



THERMASGARD® RTM 1

Type/WG1	Item No.	Measuring Ranges	Output
RTM1-U	THERMASGARD-4131-0000-200	switchable	0-10V
RTM1-U, D (with display)	THERMASGARD-4131-2000-200	switchable	0-10V
RTM1-U, E (stainless steel enclosure)	THERMASGARD-4151-0000-200	switchable	0-10V
RTM1-I	THERMASGARD-4132-0000-200	switchable	4...20mA
RTM1-I, D (with display)	THERMASGARD-4132-2000-200	switchable	4...20mA
RTM1-I, E (stainless steel enclosure)	THERMASGARD-4152-0000-200	switchable	4...20mA

Optional: Other measuring ranges on request.

General

Room temperature sensors and measuring transducers, on-wall, series Frija I and Frija II

TECHNICAL DATA:

- Measuring ranges:..... -30...+90 °C
- Sensor:..... types see table, assembled on board
- Stoppers:..... in the cover (for potentiometers)
- Potentiometers:..... standard 1kΩ,
other ratings optional on request,
e.g. 100Ω, 2.5kΩ, 5kΩ, 10kΩ,
optional potentiometer 0...10V, linearised
- Turn switch:..... max. 5 steps (0, Auto, I, II, III), 24V, max. 130mA
- LEDs:..... standard green, optional red, yellow, or two-colour, 24V DC
- Pushbuttons:..... normally open contact, 24V, max. 35mA
- Enclosure:..... plastic, ABS, pure white (similar RAL9010),
optional stainless steel
- Dimensions:..... 85 x 91 x 27 mm (Frija I, standard)
98 x 106 x 32 mm (Frija II)
75 x 75 x 25 mm (stainless steel)
- Installation:..... wall mounting or on in-wall flush box Ø55mm, 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 - 1.5mm² via terminal screws,
on safety extra-low voltage max. 24V DC only
- Humidity:..... max. 90% r.H., non-precipitating air
- Protection class:..... III (according to EN 60730)
- Protection type:..... IP 30 (according to EN 60529)
- Lettering:..... standard lettering (see pages 74 -80) otherwise
»special printing« (see box on page 81, centre, right)
- Accessories:..... see last chapter

RTF
(Frija I)
without operating
elements

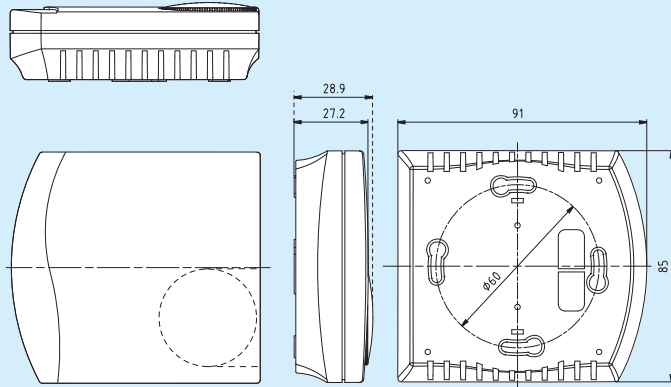


RTF
(Frija II)
with potentiometer
and turn switch



Dimensional drawing

Enclosure **Frija I**
(only one potentiometer possible)

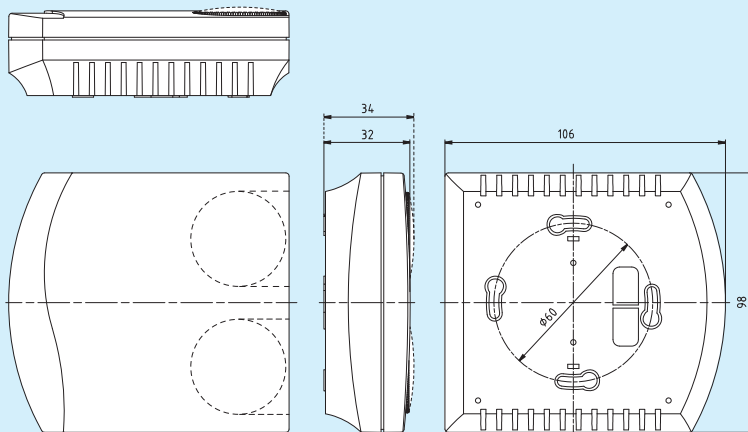


RTF
(Frija I)
with potentiometer



Dimensional drawing

Enclosure **Frija II**
(one or two potentiometers possible)

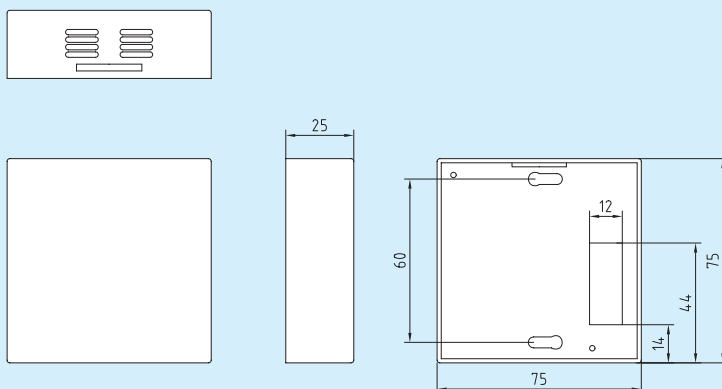


RTF
(Frija II)
with potentiometer



Dimensional drawing

Enclosure **stainless steel**



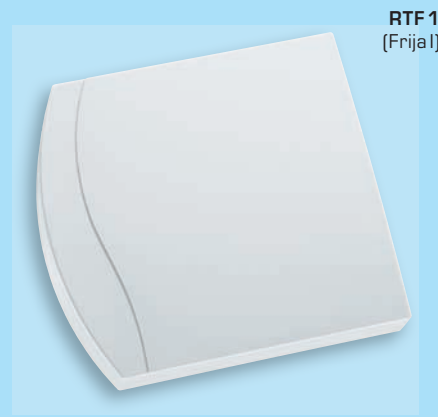
RTF
(stainless steel)



Standard version

Room temperature sensors and measuring transducers, on-wall, series Frija I

Room temperature sensor THERMASGARD® RTF 1 with passive output, in an elegant enclosure 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), vandalism-secure 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.



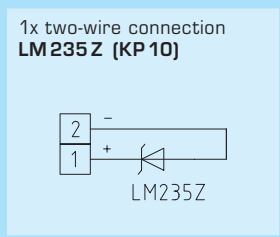
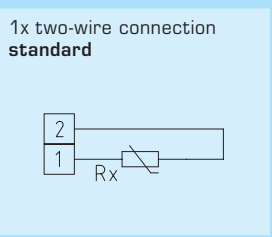
RTF 1
(Frija)



RTF 1
(stainless steel)

TECHNICAL DATA:

- Measuring range: -30...+90 °C
- Sensor / output: see table, passive or bus signal
- Connection type: 2-wire connection
- Testing current: ca. 1 mA
- Process connection: by screws
- Enclosure: plastic, material ABS, colour pure white (similar RAL9010), optional stainless steel
- Dimensions: 85 x 91 x 27 mm (Frija)
75 x 75 x 25 mm (optional stainless steel)
- Installation: wall mounting or on in-wall flush box Ø55mm, 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. 24V DC only
- Humidity: max. 90% r.H., non-precipitating air
- Protection class: III (according to EN 60730)
- Protection type: IP 30 (according to EN 60529)
- Accessories: see last chapter



THERMASGARD® RTF 1

Type / WG1	Item No.	Output
RTF1 Pt100	THERMASGARD-4030-1000-000	Pt100
RTF1 Pt1000	THERMASGARD-4030-5000-000	Pt1000
RTF1 Ni1000	THERMASGARD-4030-9000-000	Ni1000
RTF1 Ni1000 TK5000	THERMASGARD-4031-0000-000	Ni1000 TK5000, LG-Ni1000
RTF1 NTC 1,8k Ohm	THERMASGARD-4031-2000-000	NTC 1.8 kOhm
RTF1 NTC 20 kOhm	THERMASGARD-4031-6000-000	NTC 20 kOhm
RTF1 NTC 10 kOhm	THERMASGARD-4031-5000-000	NTC 10 kOhm
RTF1 NTC 10k Pre	THERMASGARD-4031-9000-000	NTC 10k Pre
RTF1 KTY 81-210	THERMASGARD-4032-0000-000	KTY81-210
RTF1 LM235Z	THERMASGARD-4132-1000-000	LM235Z (TCR = 10 mV/K; 2.73V at 0 °C), KP10
RTF1 Leergehäuse	7000-4030-0000-000	-
RTF1 Edelstahlgehäuse	-	-

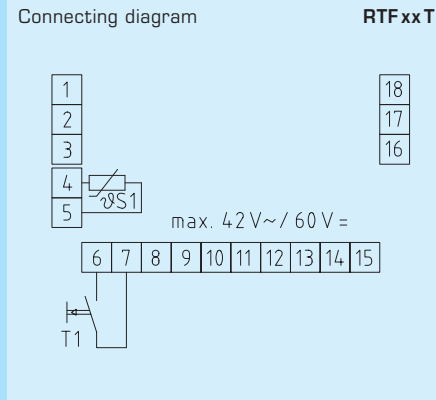


Diverse versions

Room temperature sensors and measuring transducers with operating elements, on-wall, series Frija I



(Frija I)



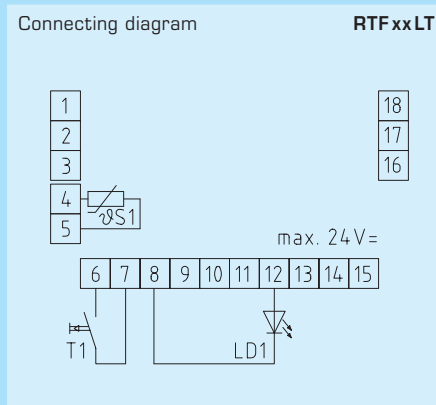
Thermasgard® RTF xx T

Version with sensor and pushbutton (max. 25 V DC / 25 mA)

Type / WG1	Item No.	Output
RTF Pt100, T	THERMASGARD-4030-1617-000	Pt100
RTF Pt1000, T	THERMASGARD-4030-5617-000	Pt1000
RTF Ni1000, T	THERMASGARD-4030-9617-000	Ni1000
RTF Ni1000 TK5000, T	THERMASGARD-4031-0617-000	Ni1000 TK5000, LG-Ni1000
RTF NTC 1,8 kOhm, T	THERMASGARD-4031-2617-000	NTC 1.8 kOhm
RTF NTC 20 kOhm, T	THERMASGARD-4031-6617-000	NTC 20 kOhm
RTF NTC 10 kOhm, T	THERMASGARD-4031-5617-000	NTC 10 kOhm
RTF NTC 10k Pre, T	THERMASGARD-4031-9617-000	NTC 10k Pre
RTF KTY81-210, T	THERMASGARD-4032-0617-000	KTY81-210
RTF LM235Z, T	THERMASGARD-4032-1617-000	LM235Z (TCR= 10 mV/K; 2.73 V at 0°C), KP10
RTF Pt1000, U, T	THERMASGARD-4131-0617-001	0-10V = 0/+50°C



(Frija I)



Thermasgard® RTF xx LT

Version with sensor, LED (green), and pushbutton (max. 25 V DC / 25 mA)

Type / WG1	Item No.	Output
RTF Pt100, L, T	THERMASGARD-4030-1593-002	Pt100
RTF Pt1000, L, T	THERMASGARD-4030-5593-002	Pt1000
RTF Ni1000, L, T	THERMASGARD-4030-9593-002	Ni1000
RTF Ni1000 TK5000, L, T	THERMASGARD-4031-0593-002	Ni1000 TK5000, LG-Ni1000
RTF NTC 1,8 kOhm, L, T	THERMASGARD-4031-2593-002	NTC 1.8 kOhm
RTF NTC 20 kOhm, L, T	THERMASGARD-4031-6593-002	NTC 20 kOhm
RTF NTC 10 kOhm, L, T	THERMASGARD-4031-5593-002	NTC 10 kOhm
RTF NTC 10k Pre, L, T	THERMASGARD-4031-9593-002	NTC 10k Pre
RTF KTY81-210, L, T	THERMASGARD-4032-0593-002	KTY81-210
RTF LM235Z, L, T	THERMASGARD-4032-1593-002	LM235Z (TCR= 10 mV/K; 2.73 V at 0°C), KP10
RTF Pt1000, U, L, T	THERMASGARD-4131-0593-003	0-10V = 0/+50°C

Diverse versions

Room temperature sensors and measuring transducers with operating elements, on-wall, series Frija I

Standard



(Frija I)



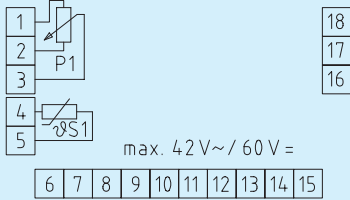
(Frija I)



(Frija I)

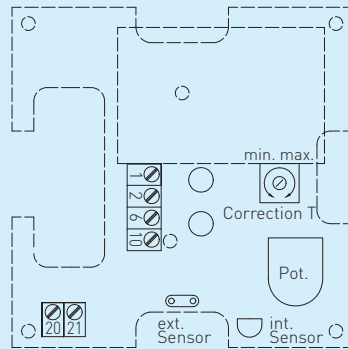
Connecting diagram

RTF xx P

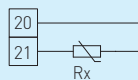


Circuit diagram

RTF xx U, U, P
RTF xx U, U, P Display

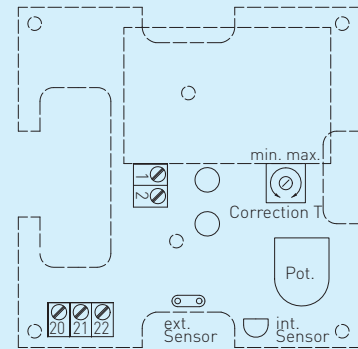


- 1 UB- GND
- 2 UB+ supply voltage 24V DC
- 6 Output temperature 0-10V
- 10 Output potentiometer 0-10V

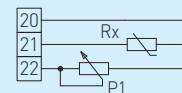


Circuit diagram

RTF xx P Display



- 1 UB- GND
- 2 UB+ supply voltage 24V DC



**THERMASGARD®
RTF xx P**

Version with sensor and potentiometer (1 kOhm)

Type / WG1	Item No.	Output
RTF Pt100, P	THERMASGARD-4030-1001-345	Pt100
RTF Pt1000, P	THERMASGARD-4030-5001-345	Pt1000
RTF Ni1000, P	THERMASGARD-4030-9001-345	Ni1000
RTF Ni1000 TK5000, P	THERMASGARD-4031-0001-345	Ni1000 TK5000, LG-Ni1000
RTF1 NTC 1,8 kOhm, P	THERMASGARD-4031-2001-345	NTC 1.8 kOhm
RTF1 NTC 20k Ohm, P	THERMASGARD-4031-6001-345	NTC 20 kOhm
RTF1 NTC 10k Ohm, P	THERMASGARD-4031-5001-345	NTC 10 kOhm
RTF1 NTC 10k Pre, P	THERMASGARD-4031-9001-345	NTC 10 k Pre
RTF1 KTY81-210, P	THERMASGARD-4032-0001-345	KTY81-210
RTF LM235Z, P	THERMASGARD-4032-1001-345	LM235Z (TCR = 10mV/K; 2.73V at 0°C), KP10
RTF Pt1000, U, P	THERMASGARD-4030-5004-345	0-10V (potentiometer)
RTF-U, U, P	THERMASGARD-4131-0004-346	0-10V (temperature and potentiometer)
RTF-U, U, P Display	THERMASGARD-4131-1004-346	0-10V (temperature and potentiometer), display

Optional: **Display**, 8-digit, cutout 36x14 mm (WxH), for displaying actual temperature

Please specify in your order: Ohm rating of potentiometer (standard = 1 kOhm, optional 100 Ohm, 2.5 kOhm, 5 kOhm, 10 kOhm, 0-10V), type of swelling arrow (standard = wedge-shaped, optional with central position or marking points) and differing specific wiring requests.



Diverse versions

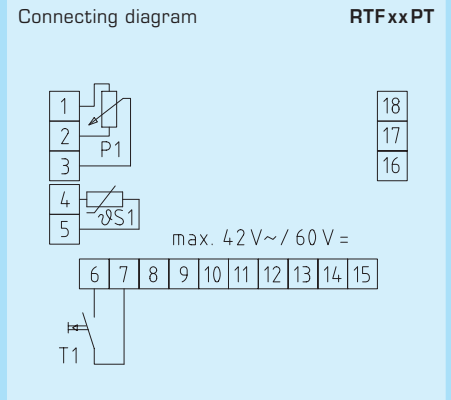
Room temperature sensors and measuring transducers with operating elements, on-wall, series Frija I

THERMASGARD® RTF xx PT

Version with sensor, potentiometer (1kOhm), and pushbutton (max. 25 V DC/25 mA)



(Frija I)



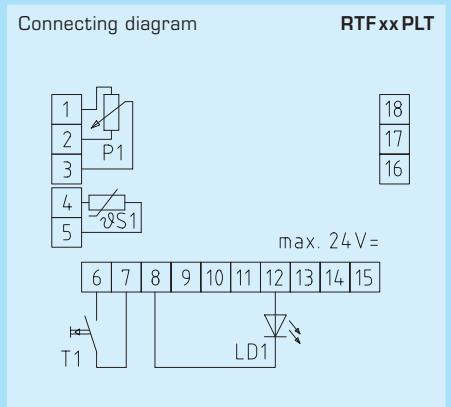
Type/WG1	Item No.	Output
RTF Pt100, P, T	THERMASGARD-4030-1021-345	Pt100
RTF Pt1000, P, T	THERMASGARD-4030-5021-345	Pt1000
RTF Ni1000, P, T	THERMASGARD-4030-9021-345	Ni1000
RTF Ni1000 TK5000, P, T	THERMASGARD-4031-0021-345	Ni1000 TK5000, LG-Ni1000
RTF NTC 1,8 kOhm, P, T	THERMASGARD-4031-2021-345	NTC 1.8 kOhm
RTF NTC 20 kOhm, P, T	THERMASGARD-4031-6021-345	NTC 20 kOhm
RTF NTC 10 kOhm, P, T	THERMASGARD-4031-5021-345	NTC 10 kOhm
RTF NTC 10k Pre, P, T	THERMASGARD-4031-9021-345	NTC 10k Pre
RTF KTY81-210, P, T	THERMASGARD-4032-0021-345	KTY81-210
RTF LM235Z, P, T	THERMASGARD-4032-1021-345	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10
RTF Pt1000, U, P, T	THERMASGARD-4030-5033-345	0-10V (potentiometer)

THERMASGARD® RTF xx PLT

Version with sensor, potentiometer (1kOhm), LED (green), and pushbutton (max. 25 V DC/25 mA)



(Frija I)



Type/WG1	Item No.	Output
RTF Pt100, P, L, T	THERMASGARD-4030-1663-347	Pt100
RTF Pt1000, P, L, T	THERMASGARD-4030-5663-347	Pt1000
RTF Ni1000, P, L, T	THERMASGARD-4030-9663-347	Ni1000
RTF Ni1000 TK5000, P, L, T	THERMASGARD-4031-0663-347	Ni1000 TK5000, LG-Ni1000
RTF NTC 1,8 kOhm, P, L, T	THERMASGARD-4031-2663-347	NTC 1.8 kOhm
RTF NTC 20 kOhm, P, L, T	THERMASGARD-4031-6663-347	NTC 20 kOhm
RTF NTC 10 kOhm, P, L, T	THERMASGARD-4031-5663-347	NTC 10 kOhm
RTF NTC 10k Pre, P, L, T	THERMASGARD-4031-9663-347	NTC 10k Pre
RTF KTY81-210, P, L, T	THERMASGARD-4032-0663-347	KTY81-210
RTF LM235Z, P, L, T	THERMASGARD-4032-1663-347	LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10
RTF Pt1000, U, P, L, T	THERMASGARD-4030-5669-347	0-10V (potentiometer)

Diverse versions

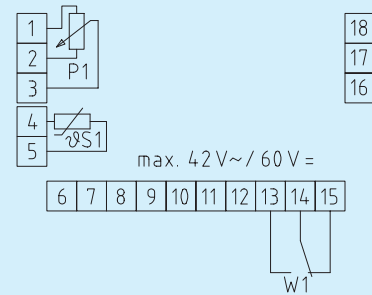
Room temperature sensors and measuring transducers with operating elements, on-wall, series Frija I and Frija II

(Frija I)



Connecting diagram

RTFxxPW

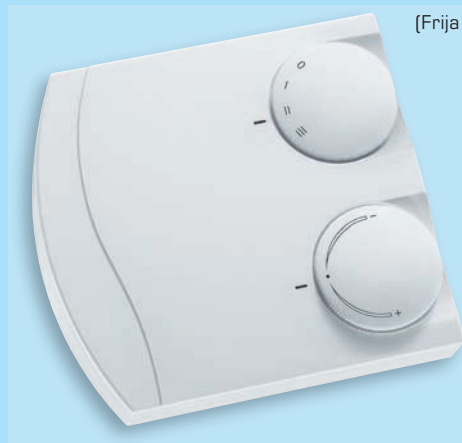


THERMASGARD® RTFxxPW

Version with sensor, potentiometer (1kOhm), and rocker switch

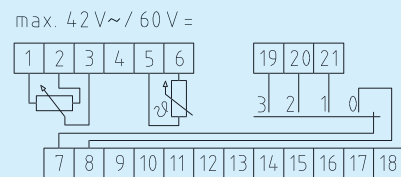
Type / WG1	Item No.	Output
RTF Pt100, P, W	THERMASGARD-4030-1061-348	Pt100
RTF Pt1000, P, W	THERMASGARD-4030-5061-348	Pt1000
RTF Ni1000, P, W	THERMASGARD-4030-9061-348	Ni1000
RTF Ni1000 TK5000, P, W	THERMASGARD-4031-0061-348	Ni1000 TK5000, LG-Ni1000
RTF NTC 1,8 kOhm, P, W	THERMASGARD-4031-2061-348	NTC 1.8 kOhm
RTF NTC 20 kOhm, P, W	THERMASGARD-4031-6061-348	NTC 20 kOhm
RTF NTC 10 kOhm, P, W	THERMASGARD-4031-5061-348	NTC 10 kOhm
RTF NTC 10k Pre, P, W	THERMASGARD-4031-9061-348	NTC 10k Pre
RTF KTY 81-210, P, W	THERMASGARD-4032-0061-348	KTY81-210
RTF LM235Z, P, W	THERMASGARD-4032-1061-348	LM235Z (TCR = 10mV/K; 2.73V at 0°C), KP10
RTF Pt1000, U, P, W	THERMASGARD-4030-5067-348	0-10V (potentiometer)

(Frija II)



Connecting diagram

RTFxxPD



THERMASGARD® RTFxxPD

Version with sensor, potentiometer (1kOhm), and turn switch

Type / WG1	Item No.	Output
RTF Pt100, P, D	THERMASGARD-4070-1007-349	Pt100
RTF Pt1000, P, D	THERMASGARD-4030-5007-349	Pt1000
RTF Ni1000, P, D	THERMASGARD-4030-9007-349	Ni1000
RTF Ni1000 TK5000, P, D	THERMASGARD-4031-0007-349	Ni1000 TK5000, LG-Ni1000
RTF NTC 1,8 kOhm, P, D	THERMASGARD-4031-2007-349	NTC 1.8 kOhm
RTF NTC 20 kOhm, P, D	THERMASGARD-4031-6007-349	NTC 20 kOhm
RTF NTC 10 kOhm, P, D	THERMASGARD-4031-5007-349	NTC 10 kOhm
RTF NTC 10k Pre, P, D	THERMASGARD-4031-9007-349	NTC 10k Pre
RTF KTY 81-210, P, D	THERMASGARD-4032-0007-349	KTY81-210
RTF LM235Z, P, D	THERMASGARD-4032-1007-349	LLM235Z (TCR = 10mV/K; 2.73V at 0°C), KP10
RTF Pt1000, U, P, D	THERMASGARD-4030-5019-349	0-10V (potentiometer)



Possible configuration variants

Room temperature sensors with operating elements, on-wall, series Frija I and Frija II

Operating elements Frija I	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			•	•			•
Pushbutton 1 (max. one button)		•		•		•	•
Pushbutton 2 (max. two buttons)			•		•		

Sensor 3 to be used with 4-wire connection, thereby max. 3 LEDs possible.
 LM235Z with calibrating pot = calibration of sensor output signal.
 Satchwell switching possible with sensor 2.
 Turn switches are not possible with Frija I!

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

Special designs we will offer upon request in written form including approval drawing.

Special printing:

Template costs, non-recurring
 for monochrome printing
 for 2-colour printing

plus proportionate setup and printing costs
 for special printing
 per each item and order

Operating elements Frija II	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		•	•	•	•	•	•				
Pushbutton 1 (max. one button)											
Pushbutton 2 (max. two buttons)		•	•	•		•	•				•
Pushbutton 3 (max. three buttons)											
Pushbutton 4 (max. four buttons)								•	•	•	

Sensor 3 can also be used instead of sensor 1.
 LM235Z with calibrating pot = calibration of sensor output signal.
 In case of cascade connection with turn switch 1, LEDs are not possible!
 At enclosure Frija II, only one operating element is possible at each of the positions "at bottom" and "at top"!