

**Screw-in temperature sensors / smoke gas temperature sensors  
with neck tube and passive output**

**RGTF 2**  
standard

Screw-in resistance thermometer / smoke gas temperature sensor with neck tube  
**THERMASGARD® RGTF 2** with passive output, with connecting head made from  
aluminium (optionally with **cable gland** or **M12 connector** according to DIN EN 61076-2-101)  
and straight protective tube.

The duct sensor is used to detect relatively high temperatures in liquid or gaseous media,  
eg, for exhaust air and smoke gas temperature measurement..

**TECHNICAL DATA**

Measuring range:	-35...+600 °C (extended range limits from -100...+750 °C optional)
Sensor / output:	Pt100/Pt1000 (according to DIN EN 60 751, class B) <b>(Perfect Sensor Protection)</b>
Connection type:	2-wire connection (Pt1000) 4-wire connection (Pt100; optional Pt1000)
Testing current:	< 0.6 mA (Pt1000) < 1.0 mA (Pt100)
Insulating resistance:	≥ 100 MΩ, at +20 °C (500 V DC)
Electrical connection:	0.14 - 2.5 mm <sup>2</sup> via terminal screws on ceramic base
Cable connection:	<b>RGTF 2</b> (Standard) adjusting screw made of metal (M20 x 1.5); <b>RGTF 2-KV</b> (optional) <b>cable gland</b> , brass, nickel-plated (M20 x 1.5; with strain relief, exchangeable, inner diameter 6 - 12 mm) <b>RGTF 2-Q</b> (optional) M12 connector according to DIN EN 61076-2-101 (male, 5-pin, A-code)
Dimensions:	see dimensional drawing
Connecting head:	form B, material aluminium, colour white aluminium (similar to RAL 9006), ambient temperature -20...+100 °C
Protective tube:	stainless steel <b>V4A</b> (1.4571), G ½" straight pipe thread, wrench size 27 mm, p <sub>max</sub> = 40 bar, Ø = 8 mm length of neck tube (HL) = 80 mm inserted length (EL) = 100 - 500 mm (see table)
Process connection:	screwed socket with G ½" straight pipe thread
Humidity:	< 95 % RH, non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	<b>IP 54</b> (according to EN 60 529) <b>RGTF 2</b> <b>IP 65</b> (according to EN 60 529) <b>RGTF 2-KV / RGTF 2-Q</b>



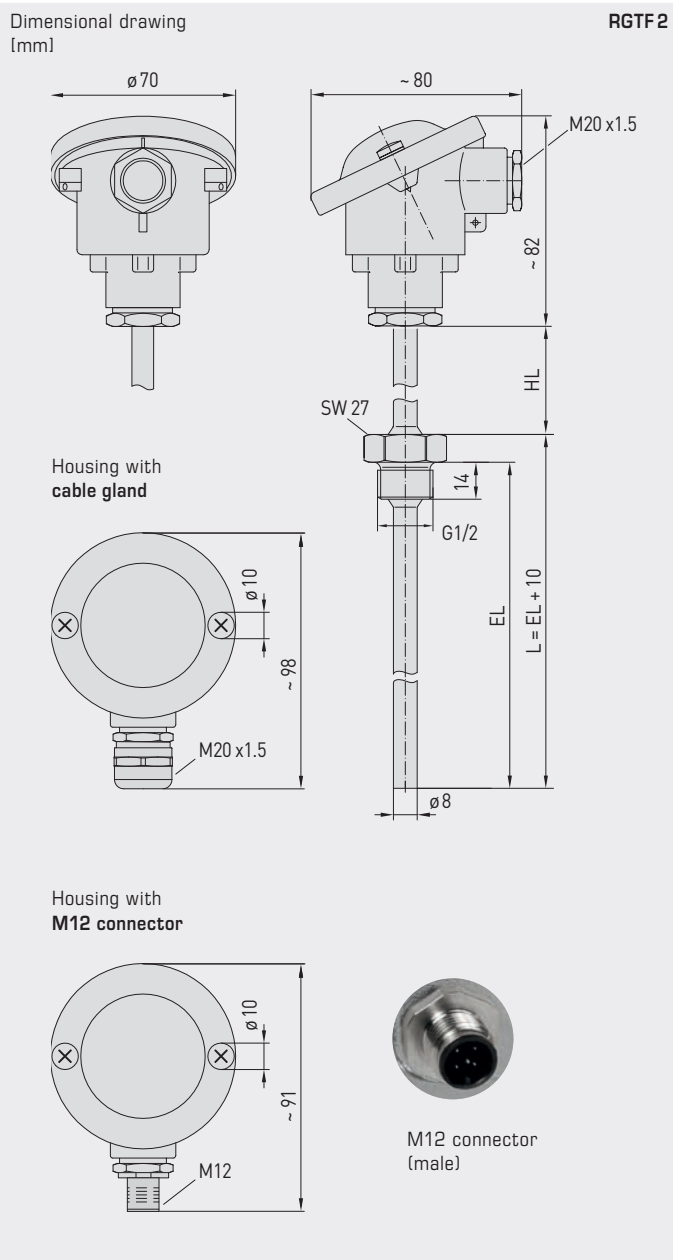
**RGTF 2**  
Measuring insert with  
ceramic tubelet



S+S REGELTECHNIK

THERMASGARD® RGTF 2

Screw-in temperature sensors / smoke gas temperature sensors  
with neck tube and passive output



RGTF 2  
standard  
(IP 54)



RGTF 2-KV  
with cable gland  
(IP 65)



RGTF 2-Q  
with M12 connector  
(IP 65)



High-performance encapsulation against  
vibration, mechanical stress and humidity

**S+ PS-PROTECTION**  
PERFECT SENSOR PROTECTION

Screw-in temperature sensors / smoke gas temperature sensors  
with neck tube and passive output

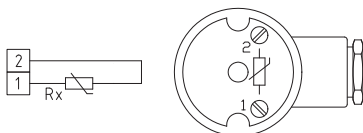
2-wire connection  
(Pt1000)



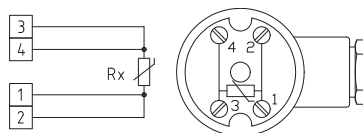
4-wire connection  
(Pt100 / Pt1000 optional)



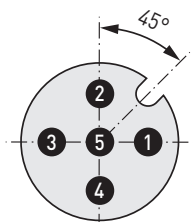
1x two-wire connection  
(Pt1000)



1x four-wire connection  
(Pt100 / Pt1000 optional)

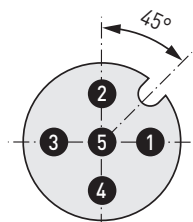


1x two-wire connection  
pin assignment (M12)



- 1 Rx
- 2
- 3 frei / free
- 4 frei / free
- 5 frei / free

1x four-wire connection  
pin assignment (M12)



- 1
- 2 Rx
- 3
- 4
- 5 frei / free



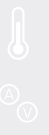
**RGTF 2**  
standard  
(IP 54)



**RGTF 2-KV**  
with cable gland  
(IP 65)



**RGTF 2-Q**  
with M12 connector  
(IP 65)



THERMASGARD® RGTF 2		Screw-in temperature sensors / smoke gas temperature sensors with neck tube (standard)			
Type / WG01	Sensor / Output	Installation length (EL)	Item No.	Price	
<b>RGTF2 Pt100 xx</b>	<b>Pt100</b> (according to DIN EN 60751, class B)		<b>IP54, 4-wire</b>		
RGTF2 Pt100 100/80mm	Pt100	100 mm	1101-2090-1023-000	226,01 €	
RGTF2 Pt100 150/80mm	Pt100	150 mm	1101-2090-1033-000	227,27 €	
RGTF2 Pt100 200/80mm	Pt100	200 mm	1101-2090-1043-000	234,28 €	
RGTF2 Pt100 250/80mm	Pt100	250 mm	1101-2090-1053-000	228,95 €	
RGTF2 Pt100 300/80mm	Pt100	300 mm	1101-2090-1063-000	245,53 €	
RGTF2 Pt100 500/80mm	Pt100	500 mm	1101-2090-1103-000	260,99 €	
<b>RGTF2 Pt1000 xx</b>	<b>Pt1000</b> (according to DIN EN 60751, class B)		<b>IP54, 2-wire</b>		
RGTF2 Pt1000 100/80	Pt1000	100 mm	1101-2090-5021-000	219,11 €	
RGTF2 Pt1000 150/80	Pt1000	150 mm	1101-2090-5031-000	220,52 €	
RGTF2 Pt1000 200/80	Pt1000	200 mm	1101-2090-5041-000	227,56 €	
RGTF2 Pt1000 250/80	Pt1000	250 mm	1101-2090-5051-000	228,96 €	
RGTF2 Pt1000 300/80	Pt1000	300 mm	1101-2090-5061-000	238,77 €	
RGTF2 Pt1000 500/80	Pt1000	500 mm	1101-2090-5101-000	254,22 €	
<b>Housing variant:</b>	<b>with pressure screw (IP54)</b>				
Extra charge:	other measuring ranges optional			on request	

THERMASGARD® RGTF 2 - KV		Screw-in temperature sensors / smoke gas temperature sensors with neck tube (with M12 connector)			
Type / WG01	Sensor / Output	Installation length (EL)	Item No.	Price	
<b>RGTF2 Pt100 xx KV</b>	<b>Pt100</b> (according to DIN EN 60751, class B)		<b>IP65, 4-wire</b>		
RGTF2 Pt100 100/80mm KV	Pt100	100 mm	1101-20D0-1023-000	229,54 €	
RGTF2 Pt100 150/80mm KV	Pt100	150 mm	1101-20D0-1033-000	230,94 €	
RGTF2 Pt100 200/80mm KV	Pt100	200 mm	1101-20D0-1043-000	237,97 €	
RGTF2 Pt100 250/80mm KV	Pt100	250 mm	1101-20D0-1053-000	239,35 €	
RGTF2 Pt100 300/80mm KV	Pt100	300 mm	1101-20D0-1063-000	249,18 €	
RGTF2 Pt100 500/80mm KV	Pt100	500 mm	1101-20D0-1103-000	264,65 €	
<b>RGTF2 Pt1000 xx KV</b>	<b>Pt1000</b> (according to DIN EN 60751, class B)		<b>IP65, 2-wire</b>		
RGTF2 Pt1000 100/80mm KV	Pt1000	100 mm	1101-20D0-5021-000	229,54 €	
RGTF2 Pt1000 150/80mm KV	Pt1000	150 mm	1101-20D0-5031-000	230,94 €	
RGTF2 Pt1000 200/80mm KV	Pt1000	200 mm	1101-20D0-5041-000	237,97 €	
RGTF2 Pt1000 250/80mm KV	Pt1000	250 mm	1101-20D0-5051-000	239,35 €	
RGTF2 Pt1000 300/80mm KV	Pt1000	300 mm	1101-20D0-5061-000	249,18 €	
RGTF2 Pt1000 500/80mm KV	Pt1000	500 mm	1101-20D0-5101-000	264,65 €	
<b>Housing variant "Q":</b>	<b>with cable gland (IP65)</b>				
Extra charge:	other measuring ranges optional			on request	

THERMASGARD® RGTF 2 - Q		Screw-in temperature sensors / smoke gas temperature sensors with neck tube (with cable gland)			
Type / WG03	Sensor / Output	Installation length (EL)	Q	Item No.	Price
<b>RGTF2 Pt100 xx Q</b>	<b>Pt100</b> (according to DIN EN 60751, class B)		●	<b>IP65, 4-wire</b>	
RGTF2 Pt100 100/80mm Q	Pt100	100 mm	●	2Z01-4141-0100-011	265,37 €
RGTF2 Pt100 150/80mm Q	Pt100	150 mm	●	2Z01-4141-0100-021	266,77 €
RGTF2 Pt100 200/80mm Q	Pt100	200 mm	●	2Z01-4141-0100-031	273,79 €
RGTF2 Pt100 250/80mm Q	Pt100	250 mm	●	2Z01-4141-0100-041	275,21 €
RGTF2 Pt100 300/80mm Q	Pt100	300 mm	●	2Z01-4141-0100-051	285,02 €
RGTF2 Pt100 500/80mm Q	Pt100	500 mm	●	2Z01-4141-0100-061	300,48 €
<b>RGTF2 Pt1000 xx Q</b>	<b>Pt1000</b> (according to DIN EN 60751, class B)		●	<b>IP65, 2-wire</b>	
RGTF2 Pt1000 100/80mm Q	Pt1000	100 mm	●	2Z05-4141-0100-011	265,37 €
RGTF2 Pt1000 150/80mm Q	Pt1000	150 mm	●	2Z05-4141-0100-021	266,77 €
RGTF2 Pt1000 200/80mm Q	Pt1000	200 mm	●	2Z05-4141-0100-031	273,79 €
RGTF2 Pt1000 250/80mm Q	Pt1000	250 mm	●	2Z05-4141-0100-041	275,21 €
RGTF2 Pt1000 300/80mm Q	Pt1000	300 mm	●	2Z05-4141-0100-051	285,02 €
RGTF2 Pt1000 500/80mm Q	Pt1000	500 mm	●	2Z05-4141-0100-061	300,48 €
<b>Housing variant "KV":</b>	<b>with M12 connector (male, 5-pin, A-code) (IP65)</b>				
Extra charge:	other measuring ranges optional			on request	