

Duct/smoke gas temperature measuring transducer,  
incl. mounting flange, calibratable, with multi-range switching  
and active output

Calibratable smoke gas temperature measuring transducer **THERMASGARD® RGTM 1** with eight switchable measuring ranges and continuous output, with connecting head made from aluminium (optionally with **cable gland** or **M12 connector** according to DIN EN 61076-2-101), spring-mounted measuring insert and straight protective tube, incl. mounting flange.

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

The sensor is factory-calibrated; an environmental precision adjustment by an expert is possible.

**RGTM 1**  
Basic unit

**TECHNICAL DATA**

Power supply:	24 V AC / DC (± 10 %) for U variant 15...36 V DC for I variant, depending on working resistance, residual ripple stabilised ± 0.3 V
Working resistance:	$R_a \text{ (Ohm)} = (U_b - 14 \text{ V}) / 0.02 \text{ A}$ for I variant
Load resistance:	$R_L > 5 \text{ kOhm}$ for U variant
Power consumption:	< 1.0 VA / 24 V AC / DC; < 0.55 VA / 24 V DC
Sensor:	Pt1000 (according to DIN EN 60751, class B) <b>(Perfect Sensor Protection)</b>
Measuring ranges:	<b>Multi-range switching</b> <b>with 8 switchable measuring ranges,</b> see table (other ranges optional) <b>with manual zero point correction (± 10K)</b>
Accuracy, temperature:	typically ± 0.2 K at +25 °C
Output:	0 - 10 V or 4...20 mA
Connection type:	2- or 3-wire connection
Electrical connection:	0.2 - 1.5 mm <sup>2</sup> , via push-in terminal
Cable connection:	<b>RGTM 1</b> (Standard) adjusting screw made of metal (M20 x 1.5); <b>RGTM 1-KV</b> (optional) cable gland, brass, nickel-plated (M20 x 1.5; with strain relief, exchangeable, inner diameter 6 - 12 mm) <b>RGTM 1-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 -30...+70 °C
Protective tube:	Stainless steel, V4A (1.4571), Ø = 8 mm inserted length (EL) = 200 - 400 mm (see table)
Process connection:	by mounting flange stainless steel <b>V2A</b> (1.4305) (included in the scope of delivery)
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>RGTM 1</b> <b>IP 65</b> (according to EN 60 529) <b>RGTM 1-KV / RGTM 1-Q</b>
Standards:	CE conformity according to EMC directive 2014 / 30 / EU



**RGTM 1**  
Measuring insert with  
ceramic tubelet  
in metal sleeve



S+S REGELTECHNIK

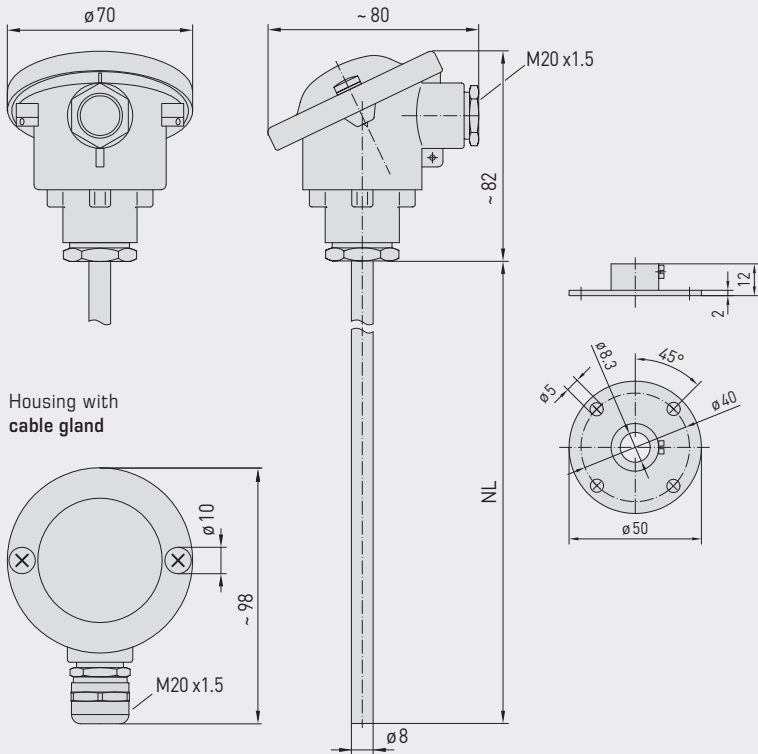
THERMASGARD® RGTM 1

Duct/smoke gas temperature measuring transducer, incl. mounting flange, calibratable, with multi-range switching and active output

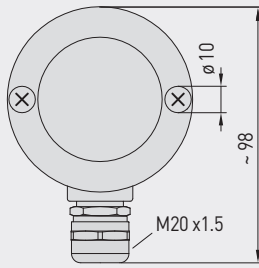


Dimensional drawing [mm]

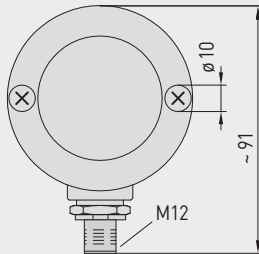
RGTM 1



Housing with cable gland



Housing with M12 connector



M12 connector (male)

RGTM 1 standard (IP 54)



RGTM 1-KV with cable gland (IP 65)



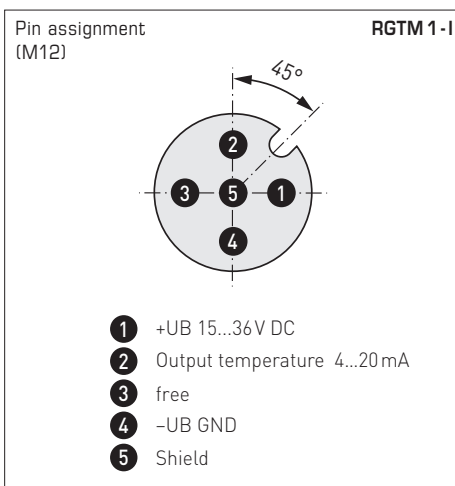
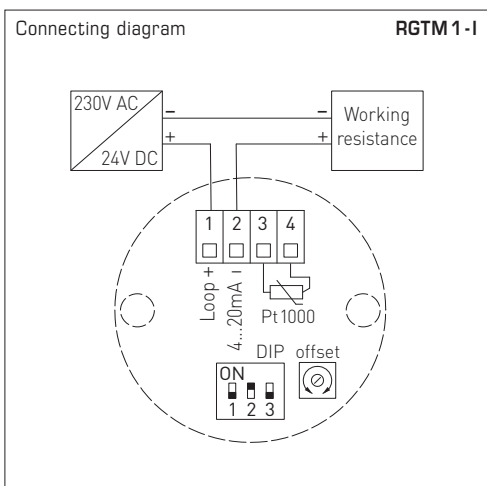
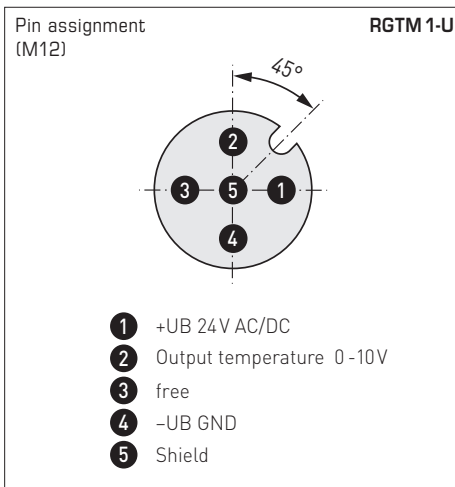
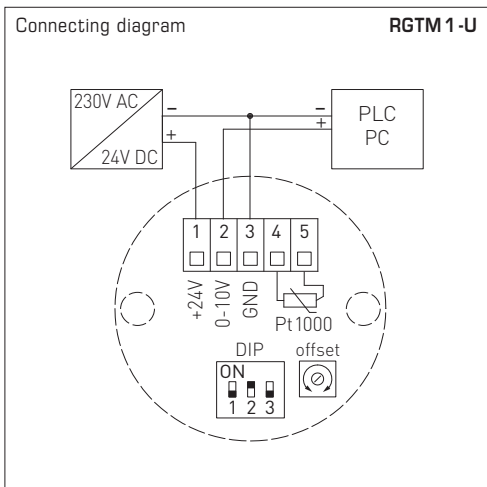
RGTM 1-Q with M12 connector (IP 65)



High-performance encapsulation against vibration, mechanical stress and humidity



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Measuring ranges (adjustable)	DIP 1	DIP 2	DIP 3
-20...+ 150 °C	ON	ON	ON
0... +50 °C (default)	OFF	ON	ON
0...+ 100 °C	ON	OFF	ON
0...+ 200 °C	OFF	OFF	ON
0...+ 300 °C	ON	ON	OFF
0...+ 400 °C	OFF	ON	OFF
0...+ 500 °C	ON	OFF	OFF
0...+ 600 °C	OFF	OFF	OFF





Duct/smoke gas temperature measuring transducer,  
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THERMASGARD® RGTM 1		Duct / smoke gas temperature sensor, incl. mounting flange (standard)				
Type / WG01	Output	Installation length (EL)	Item No. Output 0-10V	Item No. Output 4...20 mA	Price	
<b>RGTM 1-x</b>	<b>x = U / I</b>		<b>IP 54, U-variant</b>	<b>IP 54, I-variant</b>		
RGTM 1-x 200mm	0-10V / 4...20 mA	200 mm	1101-3121-0049-810	1101-3122-0049-810	318,14 €	
RGTM 1-x 250mm	0-10V / 4...20 mA	250 mm	1101-3121-0059-810	1101-3122-0059-810	330,77 €	
RGTM 1-x 300mm	0-10V / 4...20 mA	300 mm	1101-3121-0069-810	1101-3122-0069-810	334,29 €	
RGTM 1-x 400mm	0-10V / 4...20 mA	400 mm	1101-3121-0089-810	1101-3122-0089-810	337,10 €	
<b>Housing variant:</b>	<b>with pressure screw (IP 54)</b>					
Extra charge:	other measuring ranges optional				28,03 €	

THERMASGARD® RGTM 1 - KV		Duct / smoke gas temperature sensor, incl. mounting flange (with cable gland)				
Type / WG01	Output	Installation length (EL)	Item No. Output 0-10V	Item No. Output 4...20 mA	Price	
<b>RGTM 1-x KV</b>	<b>x = U / I</b>		<b>IP 65, U-variant</b>	<b>IP 65, I-variant</b>		
RGTM 1-x 200mm KV	0-10V / 4...20 mA	200 mm	1101-31D1-0049-810	1101-31D2-0049-810	328,55 €	
RGTM 1-x 250mm KV	0-10V / 4...20 mA	250 mm	1101-31D1-0059-810	1101-31D2-0059-810	341,21 €	
RGTM 1-x 300mm KV	0-10V / 4...20 mA	300 mm	1101-31D1-0069-810	1101-31D2-0069-810	344,70 €	
RGTM 1-x 400mm KV	0-10V / 4...20 mA	400 mm	1101-31D1-0089-810	1101-31D2-0089-810	347,52 €	
<b>Housing variant "KV":</b>	<b>with cable gland (IP 65)</b>					
Extra charge:	other measuring ranges optional				28,03 €	

THERMASGARD® RGTM 1 - Q		Duct / smoke gas temperature sensor, incl. mounting flange (with M12 connector)				
Type / WG01	Output	Installation length (EL)	Q ●	Item No. Output 0-10V	Item No. Output 4...20 mA	Price
<b>RGTM 1-x Q</b>	<b>x = U / I</b>			<b>IP 65, U-variant</b>	<b>IP 65, I-variant</b>	
RGTM 1-x 200mm Q	0-10V / 4...20 mA	200 mm	●	2001-4131-1100-011	2001-4131-2100-011	364,39 €
RGTM 1-x 250mm Q	0-10V / 4...20 mA	250 mm	●	2001-4131-1100-021	2001-4131-2100-021	377,04 €
RGTM 1-x 300mm Q	0-10V / 4...20 mA	300 mm	●	2001-4131-1100-031	2001-4131-2100-031	380,53 €
RGTM 1-x 400mm Q	0-10V / 4...20 mA	400 mm	●	2001-4131-1100-041	2001-4131-2100-041	383,37 €
<b>Housing variant "Q":</b>	<b>with M12 connector (male, 5-pin, A-code) (IP 65)</b>					
Extra charge:	other measuring ranges optional				28,03 €	