

Outdoor Temperature Transmitter Basic 0-10 V

Article number: 807002 0013

Our rugged and reliable outdoor temperature transmitter is an ideal choice for outdoor areas that require a compact, shockproof and easy-to-install temperature monitoring solution. Thanks to its fixed Pt1000 RTD sensor, temperature is measured accurately. With the standardized 0-10 V signal at the output, it can be seamlessly integrated into existing heating systems and control systems. It is characterized by its high measurement accuracy and long-term service life, even under difficult operating conditions. The integrated alarm functions, including sensor break, sensor short-circuit and measuring range monitoring, ensure correct temperature measurement and transmission and provide additional safety. The transmitter can be parameterized quickly and easily using DIP switches.



Special features	
Inputs and outputs	werkzeugfreie Montage durch innovative Drehdeckelverschluss tool-free assembly due to innovative rotary lid lock Messelement: Pt 1000 Measuring element: Pt 1000 Ausgang: 0 - 10 V Output: 0 - 10 V
Input: Pt1000 resistance sensor, permanently installed output: 0 to 10 V	
Accuracy and Long-term stability	
Accuracy: high measuring accuracy Long-term stability: long service life with flexible application possibilities	
Alarm function	einfach parametrieren mit DIP-Schaltern easy to parameterise with DIP switches
Sensor break monitoring Sensor short-circuit monitoring Measuring range monitoring	
Design	
Compact, robust, vibration and shock resistant design	
Parametrization	
Simple and super-fast parameterization thanks to preset dip switches	

Input			
Measuring element	Norm	Configurable measuring range	Accuracy
Pt1000	IEC 60751	-200 °C to +850 °C -328 °F to +1562 °F	±0.3 °C + 0.1 % of the measuring span
Connection type	2-wire (permanently installed)		

Output		Circuit diagram Output	
Output type	analog, temperature linear for RTD		
Output signal	0 to 10 V		
Parametrization / Scaling	Configurable via DIP-Switch		
Resolution	16 bit dac		
Accuracy (°C)	0,1		
Load	500 Ω at 24 VDC		
Connection type	3-wire and 4-wire		

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You can find our standard portfolio in our
webshop at: www.testo-sensor.shop

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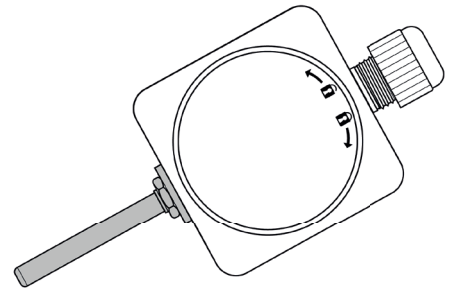
Sensor monitoring & sensor error		Measured values outside the measuring range	
Sensor failure effects	according to NAMUR NE43	Sensor Status	0 - 10 V
Alarms		Min. measured value	0 V
Sensor error	0 - 10 V	Max. measured value	10 V
Sensor Status	11 V	Underrange	0 V
Sensor short circuit	11 V	Overrange	10,5 V

Time response		Accuracy and stability	
Closing time (s)	≤ 5	Cold junction compensation	
Signal attenuation (s)	0 - 30	Cold Junction Compensation	±0,3 - 0,5 °C (NTC 5K)
Measuring cycle (s)	<0,25 (<4 Hz)	Temperature influence	±0,01 °C per °C
Response time	Depending on sensor type		

Ambient conditions	
Ambient Temperatur	Storage: -20 °C to +70 °C (housing) Operating: -20 °C to +70 °C (housing)
Humidity (%rH)	0 to 98 (non-condensing)
Protection	Housing IP65

EMC	
Standard	Directive: 2014/30/EU Harmonized standards: EN 61326-1:2013

Type	
Dimensions (mm)	135 x 60 x 34 (see drawing)
Weight (g)	75
Material Flammability	ABS white RAL 9010 UV resistant, RoHS compliant
Mounting	Enclosed mounting kit (housing)
Connection	Single wires, max. 1,5 mm ² , AWG 16
Protection sleeve	
Material	Stainless steel 1.4404 316L
Diameter (mm)	6
Mounting length (mm)	50



Factory configuration		Factory settings	
Input	Pt1000 fixed	Aussentemperaturtransmitter (RTD Sensoren) Werkseinstellungen: Sensor Pt1000 Skalierung: -20 .. 50 °C Outdoor temperature transmitter (RTD sensors) Factory settings: Sensor Pt1000 Scaling: -20 ... 50 °C	
Scaling	-20 °C to +50 °C		
General data			
Isolation	none		
Supply Voltage (VDC)	12 to 36, polarity protected		
Delivery			
Transmitter, Instruction manual, individually packed in PE bag			

Matching accessories	
DIN rail power supply	On request
Table power supply	On request
Matching Sun Protection	in the Webshop: testo-sensor.shop
Matching connection cables	in the Webshop: testo-sensor.shop

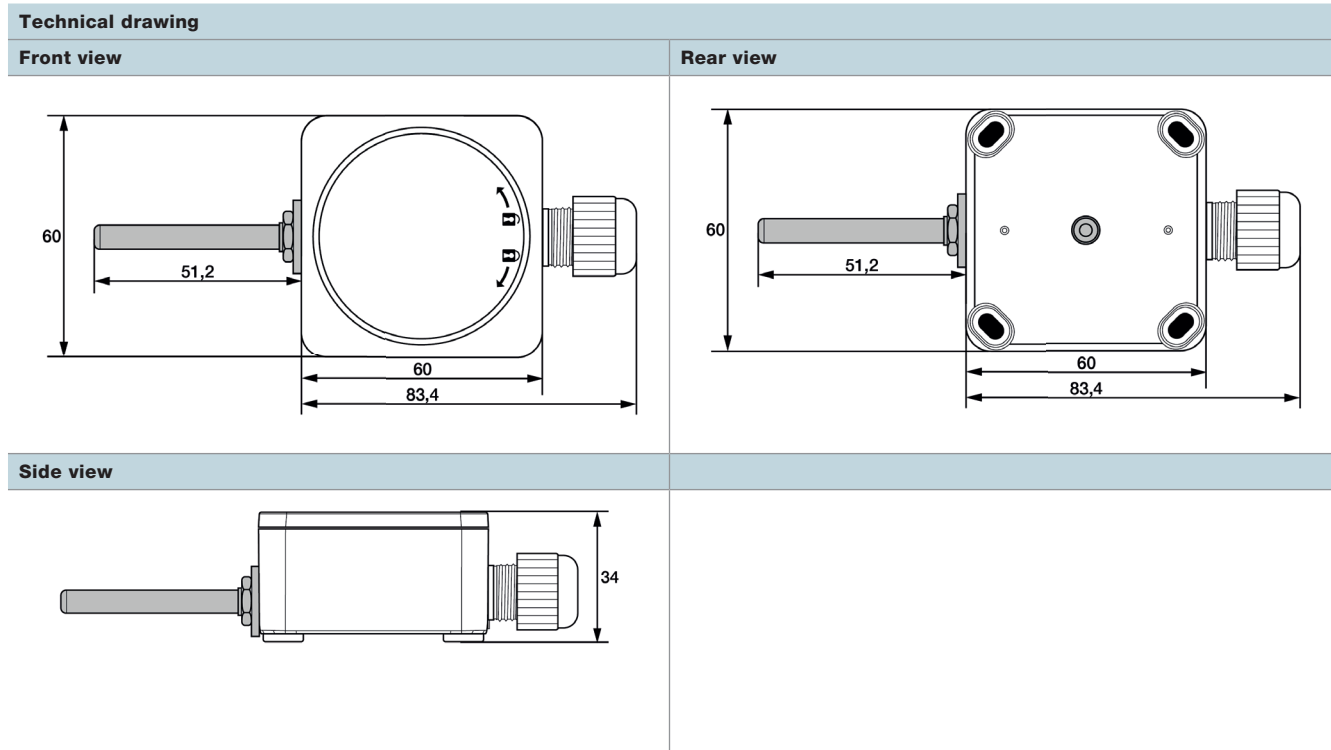
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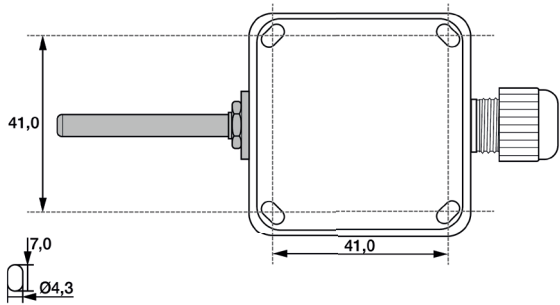
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All dimensions in mm

Pin assignment input and output		Parametrization																																																																																										
Input	Pt1000 fest verbaut	Output	Output 0-10V 3w																																																																																									
	Pt1000 fixed mounted		Output 0-10V 4w																																																																																									
Setting the input signal	With the DIP switches of the transmitter you can configure the transmitter according to your needs. Please just leave the DIP switches 1-4 in position. Switches 5-8 are used to set the scaling and the measuring range. Please refer to the adjacent table for the exact configuration.	Setting the measuring range (0 .. 250 °C)	4 <input type="checkbox"/> 24V+ 3 <input type="checkbox"/> 24V- Out 10V- 2 <input type="checkbox"/> Out 10V+ 1 <input type="checkbox"/> Out 10V+																																																																																									
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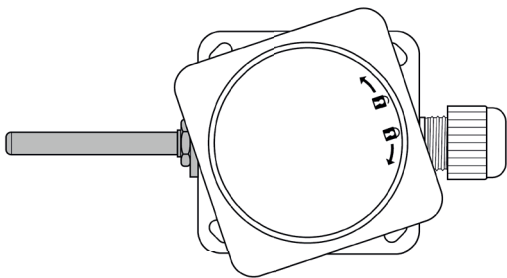
Mounting



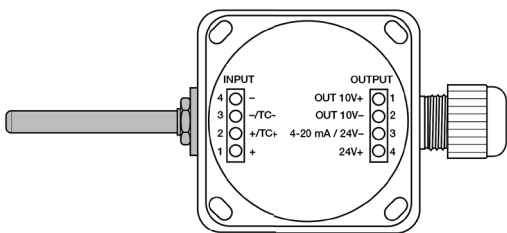
Thanks to the four slotted holes, the housing can be easily mounted on the wall. The openings for the screws are located outside the protective space for the electronics, so no sealing is required. With the cable compression glands, sealing to the probe or data cable is guaranteed even for different diameters.

Mounting material for the installation of the transmitter (screws and dowels) are included with the transmitter as free accessories. A large assortment of temperature probes and connecting cables is also available as an option.

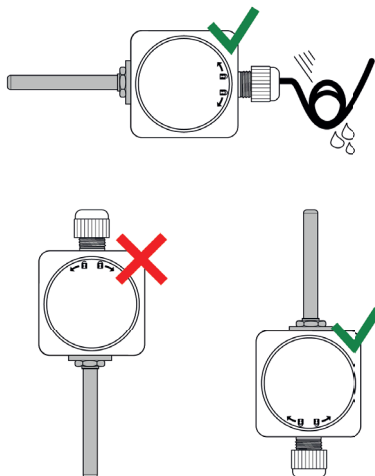
Important: To prevent measuring errors, the connecting screws for fastening the connecting cable must be firmly tightened.



Open the rotary cover.



You can parameterize your temperature transmitter and set the scaling via the DIP switches. Please use the information from the parameterization table.



Mount your outdoor probe with sufficient distance to vents, windows or doors and preferably on the north wall, alternatively on west or east wall of the building. Avoid direct sunlight and rain. Use Sun Protection if necessary. Please lay the cables downwards so that rainwater can drip off in a defined way. Please consider the permissible ambient conditions during installation.