

Temperature Transmitter RR 48 / RR 49

Temperature Measuring with Pt100/Pt1000-Sensors

The Temperature Transmitter Tiny Snap RR 48/RR 49 converts the sensor signal on input to temperature linear standard signal (0 ... 20 mA, 4 ... 20 mA or 0 ... 10 V) and makes this signal galvanic isolated available at the transmitter output. Its high level of reliability, extremely compact form, and cost optimized design make the RR 48/RR 49 the first choice in its class!

Numerous sensible details: For example, because of its extremely small installation depth of only 60 mm, the RR 48/RR 49 can also be installed in economical standard terminal boxes such as those frequently used for decentralized measuring points. A cross-connector for the auxiliary power supply ensures fast and economical installation. The slim housing with 11.2 mm width saves significant space on the DIN-rail.

Analog signal processing utilizing the new technology guarantees precise measured values with short response times and outstanding signal reproduction at the output – and all this with unparallel sturdiness and long-term stability of the insulation paths under tough industrial conditions.

Protective Separation and the 24 V AC/DC power supply make the RR 48/RR 49 universally applicable for all measurement and industrial applications, as well as for building automation.

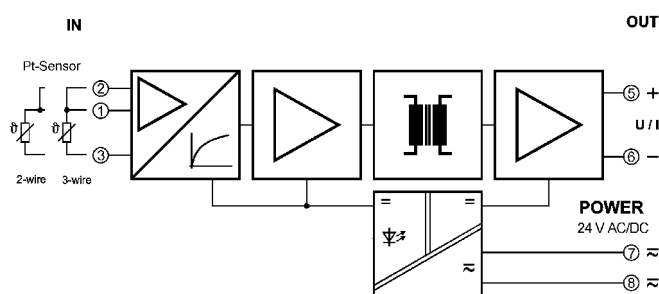
- **Cost optimized design**
Economical temperature measuring for standard applications with 2-wire or 3-wire connection
- **Only 60 mm installation depth, 11.2 mm wide**
Can be installed in economical standard terminal boxes
- **Fixed ranges, easy to use**
Ready to use without any settings or adjustments
- **True 3-port separation**
Protection against erroneous measurements due to parasitic voltages or ground loops
- **High reliability and long-term stability**
New technology for signal processing
- **Protective Separation acc. to EN 61140**
Protects service personnel and downstream devices against impermissibly high voltage
- **Cross-connector for the auxiliary power supply**
Fast and economical installation
- **Unlimited use with 24 V AC/DC power supply**
Universally applicable for all measurement and industrial applications

5 Years Warranty

Defects occurring within 5 years from delivery are remedied free of charge at our plant (carriage and insurance paid by sender)



Block diagram



Technical Data

Input		
Input signal	Pt100 / Pt1000	
Sensor connection	2-wire / 3-wire	
Measuring range ¹⁾	Fixed ranges within -50 to +400 °C	see Product line
Sensor wire resistance	< 10 Ω / wire	
Sensor current	1 mA / 0.1 mA	
Output		
Output signal	0 ... 20 mA, 4 ... 20 mA, 0 ... 5 V, 0 ... 10 V see product line	
Load	Current output	≤ 500 Ω
	Voltage output	≥ 2 kΩ
Ripple	< 10 mV _{rms}	
Offset	20 µA bzw. 10 mV	
General Data		
Linearity	< 0.2 % of input span	
Temperature coefficient ²⁾	0.025 % / K	
Calibration	± 0.2 °C	
Response time	< 100 ms	
Test voltage	2.5 kV, 50 Hz, 1 min	Input against output against power supply
Working voltage ³⁾ (Basic Insulation)	Up to 600 V AC/DC for overvoltage category II and pollution degree 2 acc. to EN 61010-1 between all circuits	
Protection against electrical shock ³⁾	Protective separation according to EN 61140 by reinforced insulation in accordance with EN 61010-1 up to 300 V AC/DC for overvoltage category II and pollution degree 2 between all circuits.	
Ambient temperature	Operation	0 °C at + 55 °C
	Transport and storage	- 25 °C at + 80 °C
Power supply	24 V AC/DC, ± 15 %	AC: 48 ... 62 Hz, approx. 2 VA
		DC: approx. 0.7 W
EMC ⁴⁾	EN 61326-1	
Construction	11.2 mm housing, protection class: IP 20	
Weight	Approx. 50 g	

1) Other input range on request

2) Average TC in specified operating temperature range.

3) As far as relevant the standards and rules mentioned above are considered by development and production of our devices. In addition relevant assembly rules are to be considered by installation of our devices in other equipments. For applications with high working voltages, take measures to prevent accidental contact and make sure that there is sufficient distance or insulation between adjacent situated devices.

4) Minor deviation possible during interference.

Product line

Devices		Order No.
Temperature Transmitter	Pt100	RR 48 - X X
	Pt1000	RR 49 - X X
↓		
Input	0 ... +50 °C	
	0 ... +100 °C	1
	0 ... +200 °C	2
	0 ... +300 °C	3
	0 ... +400 °C	4
	- 50 ... +150 °C	5
	- 50 ... +100 °C	6
- 50 ... +50 °C	7	
↓		
Output	0 ... 20 mA	2
	4 ... 20 mA	4
	0 ... 5 V	5
	0 ... 10 V	6
Cross-connector (10 polig)	For looping through the power supply	85034902

Dimensions

