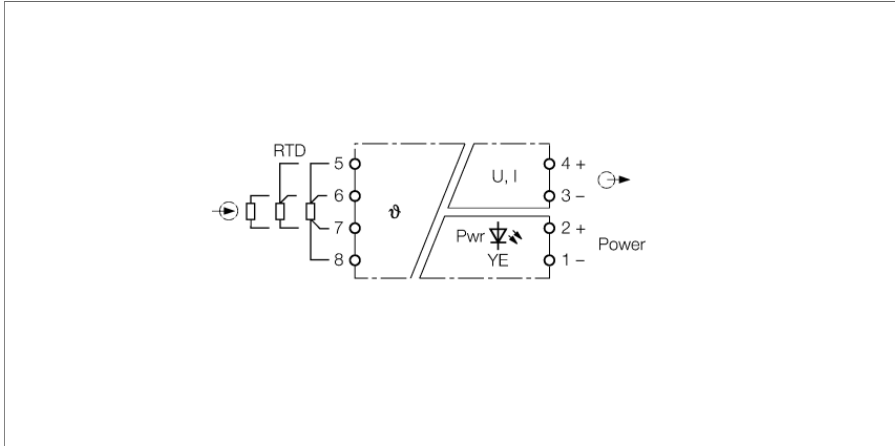


Temperature measuring amplifier 1-channel IMS-TI-PT100/24V



The 1-channel temperature measuring amplifier IMS-TI-PT100/24V is designed to evaluate the temperature-dependent changes of Pt100 RTDs, to isolate them galvanically and to output them as temperature-linear voltage or current signals of 0...10 V, 0...20 mA or 4...20 mA.

Alternatively, Pt100 RTDs in 2, 3 or 4-wire technology can also be operated at the input circuit of the measuring amplifier.

The number of Pt100 wires, the transmission characteristic (0...20 mA, 4...20 mA or 0...10 V) as well as the measuring range are adjusted via DIP switch.

The device offers wire-break and short-circuit monitoring. In the event of error, 12 V or 22 mA are provided at the output and the error is additionally signalled by the flashing power LED.

The following measuring ranges can be adjusted:

- 50...+150 °C
- 0...+100 °C
- 0...+200 °C

In the event of error (wire-break or short-circuit), 12 V or 22 mA are provided at the output and the error is additionally signalled by the flashing power LED.

The IM34 temperature measuring amplifiers from TURCK offer more solutions for applications with other measuring ranges and temperature probes.

- Connection of temperature probe Pt100
- Output circuit: 0/4...20 mA or 0...10 V
- Accuracy < 0.3% of full scale
- Complete galvanic isolation
- Input reverse-polarity protected
- 6.2 mm width
- UL: Class1, Div2, Group A, B, C, D; GOST

Dimensions

Type	IMS-TI-PT100/24V
ID	7504012
Nominal voltage 24 VDC	
Operating voltage 16.8...30 VDC	
Power consumption ≤ 0.32 W	
Residual ripple ≤ 5 mV _{ss}	
Pt100 -50...150°C; 0...100°C; 0...200°C	
Input resistance (voltage) ≥ 1000 kΩ	
Output circuits	
Output current 0/4...20 mA	
Output voltage 0...10 V	
Load resistance voltage output ≥ 1 kΩ	
Load resistance current output ≤ 0.4 kΩ	
Response characteristic	
Rise time (10...90 %) ≤ 30 ms	
Fall time (90...10 %) ≤ 30 ms	
Measuring accuracy (including linearity, hysteresis and repeatability) ≤ 0.3 % of full scale	
Temperature drift ≤ 0.00015 % of full scale/K	
Galvanic isolation	
Test voltage 1.5 kV	
Displays/Operating elements	
Operational readiness Yellow	
Mechanical data	
Protection class IP20	
Flammability class acc. to UL 94 V-0	
Ambient temperature -20...+60 °C	
Storage temperature -40...+80 °C	
Dimensions 114.5 x 6.2 x 90 mm	
Weight 60 g	
Mounting instructions DIN rail (NS35)	
Housing material Polycarbonate/ABS	
Electrical connection Screw terminals	
Terminal cross-section 2.5 mm ²	
Tightening torque 0.5 Nm	

