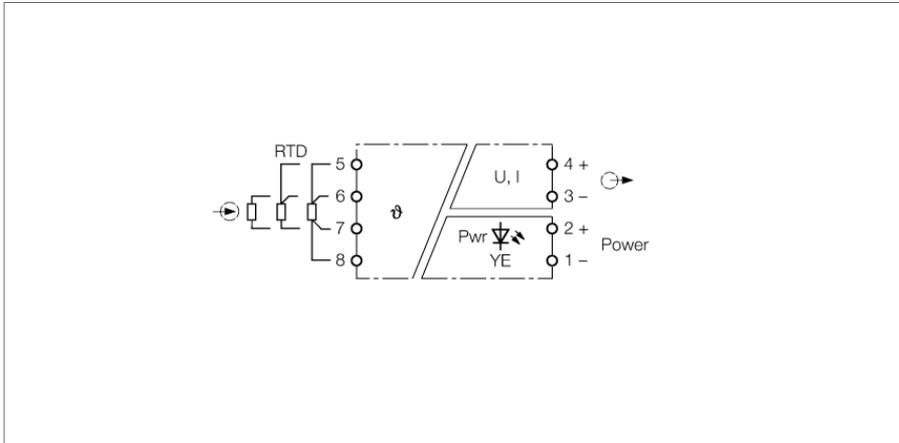


**Temperature measuring amplifier
1-channel
IMS-TI-PT100/24V**



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**

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

Type designation		IMS-TI-PT100/24V
Ident no.		7504012
Nominal voltage		24 VDC
Operating voltage range		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
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
Indication		
Operational readiness		yellow
Mechanical Data		
Protection class		IP20
Flammability class acc. to UL 94		V-0
Ambient temperature (min.)		-20 °C
Ambient temperature (max.)		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

Dimensions

