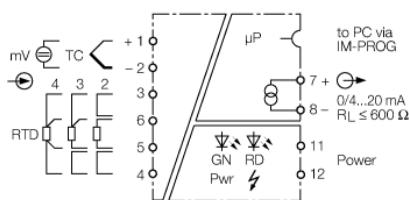


Temperature measuring amplifier

1-channel

IM34-11-CI



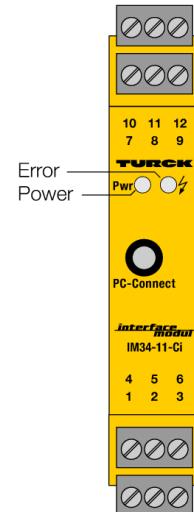
The 1-channel temperature measuring amplifier IM34-11-CI is designed to evaluate the temperature-dependent changes of Ni100/Pt100 RTDs, thermocouples types B, E, J, K, L, N, R, S and T or low voltages in a range of -160...+160 mV and to output them as linear temperature current signals.

With the software tool Device Type Manager (DTM), the device can be configured and parameterised via PC. For this, connect the device to the PC via the 3.5 mm jack on the front (the matching transmission cable IM-PROG III can be ordered separately from TURCK). Use the DTM of the IM34-11EX-CI for the device.

The following settings are available:

- Connection mode (2, 3 and 4-wire technology)
- Measuring range, start
- Measuring range, end
- Input circuit monitoring for wire-break
- Behaviour of the current output in case of errors in the input circuit: 0 or > 22 mA
- Internal or external cold junction compensation
- Output current (0/4...20 mA)
- Temperature ($^{\circ}\text{C}$ or $^{\circ}\text{K}$)
- Mode (resistor, thermocouple, low voltage, line compensation)

The signals are transformed according to ITS 90/IEC 584 for thermocouples and according to IEC 751 for Pt100 RTDs and provided temperature linear at the current output.



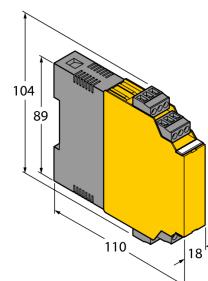
Temperature measuring amplifier

1-channel

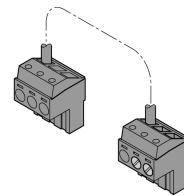
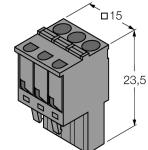
IM34-11-CI

Type designation		IM34-11-CI
Ident no.		7506638
Nominal voltage		Universal voltage supply unit
Operating voltage		20...250 VAC
Frequency		40...70 Hz
Operating voltage range		20...125 VDC
Power consumption		≤ 3 W
Input circuits		
Thermocouple		
Ni100		
Pt100		
mV signals		
Pt100		(IEC 751), 2, 3 and 4-wire technology
Ni100		(DIN 43760), 2, 3 and 4-wire technology
Probe current		≤ 0.2 mA
Thermocouples		B, E, J, K, N, R, S, T (ITS 90/IEC 584), L (DIN 43710)
Voltage input		-0.160...+0.160 VDC
Output circuits		
Output current		0/4...20 mA
Load resistance, current output		≤ 0.6 kΩ
Fault current		0 / 22 mA adjustable
Rise time (10...90 %)		≤ 1000 ms
Fall time (90...10 %)		≤ 1000 ms
Reference temperature		23 °C
Measuring accuracy current output (including linearity, hysteresis and repeatability)		± 5 µA
Temperature drift analog output		0.0025 %/K
Measuring accuracy RTD input (including linearity, hysteresis and repeatability)		± 50 mΩ
Temperature drift RTD input		± 3 mΩ/K
Measuring accuracy TC input (including linearity, hysteresis and repeatability)		± 15 µV
Temperature drift TC input		+/- 3.2 µV / K (of 320mV)
Cold junction compensation error		2-wire < 100mΩ after line compensation 3-wire < 100mΩ with asymmetrical wiring 4-wire < 50mΩ with cold junction compensation < 2 K with IM-3-CJT < 1K
Galvanic isolation		
Test voltage		2.5 kV
Indication		
Operational readiness		green
Error indication		red
Protection class		IP20
Flammability class acc. to UL 94		V-0
Ambient temperature (min.)		-25 °C
Ambient temperature (max.)		70 °C
Storage temperature		-40...+80 °C
Dimensions		104 x 18 x 110 mm
Weight		148 g
Mounting instructions		DIN rail (NS35) or panel
Housing material		Polycarbonate/ABS
Electrical connection		4 x 3-pin removable terminal blocks, reverse polarity protected, screw terminal
Terminal cross-section		1 x 2.5 mm ² / 2 x 1.5 mm ²
Tightening torque		0.5 Nm

Dimensions



Temperature measuring amplifier**1-channel****IM34-11-CI****Accessories**

Type code	Ident no.	Description	Dimension drawing
IM-3-CJT	6900524	Cold junction compensation module for IM 34 temperature measuring amplifiers, width 18 mm	
IM-CC-3X2BK/2BK	7541218	Cage clamp terminals for IM modules (Ex-devices with 18 mm overall width); includes: 4 pcs. of 3-pin black terminals	
IM-PROG III	7525111	USB-compatible programming adapter for the FDT/DTM-based parametrization of HART-capable Turck devices; galvanic separation between the device to be parametrized and the PC	