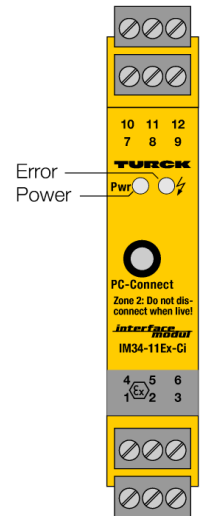
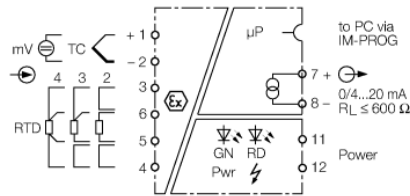


Temperature measuring amplifier 1-channel IM34-11EX-CI



The 1-channel Ex-area temperature measuring amplifier IM34-11EX-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 temperature-linear current signals 0/4...20 mA.

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).

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 (°C or °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.

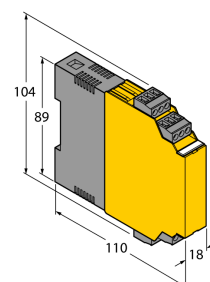
- ATEX, IECEx, _cFM_{US}, UL, TR CU, IN-METRO, CCOE, NEPSI, KOSHA
- Installation in zone 2
- Input for Pt100/ Ni100 resistors, thermocouples and millivolt signals in 2, 3 or 4-wire technology
- Output circuit: 0/4...20 mA
- Parametrized via PC (FDT / DTM)
- Complete galvanic isolation
- Input reverse-polarity protected

Temperature measuring amplifier

1-channel

IM34-11EX-CI

Dimensions



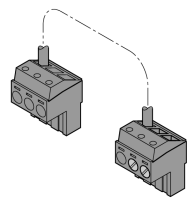
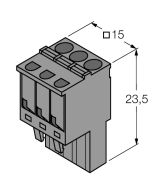
Type designation	IM34-11EX-CI
Ident-No.	7506633
Operating voltage	20...250 VAC
Frequency	40...70 Hz
Operating voltage range	20...125 VDC
Power consumption	≤ 3 W
Input circuits	Intrinsically safe acc. to EN 60079
	Thermocouple
	Pt100
	Ni100
	mV signals
Pt100	(IEC 751), 2, 3 and 4-wire technology
Ni100	(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
Output	Adjustable output mode
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
Important note	For Ex-applications the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.
Ex approval acc. to conformity certificate	TÜV 02 ATEX 1898
Application area	II (1) G, II (1) D
Ignition protection category	[Ex ia Ga] IIC ; [Ex ia Da] IIIC ;
Ex approval acc. to conformity certificate	TÜV 06 ATEX 552978 X
Application area	II 3 G
Ignition protection type	Ex nA [ic Gc] IIC T4
Characteristic	linear
Indication	
Operational readiness	green
Error indication	red

Temperature measuring amplifier
1-channel
IM34-11EX-CI

Protection class	IP20
Flammability class acc. to UL 94	V-0
Ambient temperature	-25...+70 °C
	-25 ... +60 °C für UL, FM
Storage temperature	-40...+80 °C
Dimensions	104 x 18 x 110 mm
Weight	158 g
Mounting instructions	DIN rail (NS35) or panel
Housing material	Polycarbonate/ABS
Electrical connection	4 × 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

Temperature measuring amplifier
1-channel
IM34-11EX-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-3X2BU/2BK	6900475	Cage clamp terminals for IM modules (Ex-devices with 18 mm overall width); includes: 2 pcs. 3-pin blue terminals and 2 pcs. 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	