

The 1-channel temperature measuring amplifier IM34-11EX-CI is designed to evaluate the temperature-dependent variations of resistance thermo detectors (RTD) Ni100/ Pt100, thermoelement 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.

The input circuit of the measuring amplifier is also suited for connection of 2, 3 or 4-wire Ni100/Pt100 resistors. The Ni100/ Pt100 input may be used for external cold junction compensation for the thermoelements or as an independent measuring input.

Parameterization and configuration are implemented with the software tool „Device Type Manager“ (DTM). For this purpose the temperature measuring amplifier is connected to the PC with a 3.5-mm front panel jack. The premoulded transmission cable can be ordered with TURCK under the type name IM-PROG (ident no. 6890422).

The following settings can be made via DTM:

- Connection mode (2, 3, or 4-wire technology)
- Lower measuring range
- Upper measuring range
- Input circuit monitoring for wire-break
- Current output performance 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 unit (°C or °K)
- Mode (resistance thermo detectors (RTD), thermoelement, low voltage, line compensation)

The signals are transformed according to ITS90 IEC 584 for thermoelements and IEC 751 for PT100 and provided as temperature-linear signals at the current output.

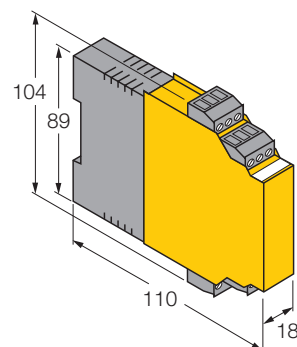
- **Intrinsically safe input circuits EEx ia**
- **Application area according to ATEX : II (1) GD**
- **Input for Pt100/ Ni100 resistors, thermoelements and millivolt signals in 2-, 3- or 4-wire technology**
- **Parameterization via PC PACTware™**
- **Output: 0/4...20 mA**
- **Selectable line monitoring for wire-break/short-circuit (ON/OFF mode)**
- **Removable terminal blocks**
- **Universal operating voltage (20...250VAC/ 20...125VDC)**
- **Galvanic isolation of input circuits to output circuits and supply voltage**

temperature measuring amplifier

IM34-11EX-CI

Type	IM34-11EX-CI		
Ident-No.	7506633		
Operational voltage range:	20 ... 250 VAC		
Frequency	≥ 40 ... ≤ 70 Hz		
Operational voltage range:	20 ... 125 VDC		
Power consumption	≤ 3 W		
Input circuits	intrinsically-safe according to EN 50020 Thermoelement Pt100 Ni100		
Pt100	(IEC 751), 2, 3 and 4-wire technology		
Ni100	(IEC 751), 2, 3 and 4-wire technology		
Thermoelements	B, E, J, K, N, R, S, T (ITS 90/IEC 584), L (DIN 43710)		
Probe current	≤ 0.2 mA		
Voltage	-0,160...+0,160 VDC		
Output current	0/4...20 mA		
Load resistance current output	≤ 0.6 kΩ		
Switching frequency	≤ 1 Hz		
Test voltage	2.5 kV		
Constant voltage supply	250 V		
Ex approval acc. to conformity certificate			
Ex approval acc. to conformity certificate	TÜV 02 ATEX 1898		
Application area	II (1) GD		
Protection type	[EEx ia] IIC		
Max.output voltage U _o	≤ 5 V		
Max. output current I _o	≤ 2 mA		
Max. output power P _o	≤ 2.6 mW		
Characteristic	Linear		
External inductance/capacitance L _f /C _i			
External inductance/capacitance L _f /C _o			
		EEx ia IIC	EEx ia IIB
	Lo [mH]	1000	1000
	Co [µF]	100	1000
Ex approval acc. to conformity certificate	TÜV 06 ATEX 552978 X		
Application area	II 3 G		
Max.output voltage U _o	≤ 5 V		
Max. output current I _o	≤ 2 mA		
Max. output power P _o	≤ 2.6		
External inductance/capacitance L _f /C _o			
		EEx ia IIC	EEx ia IIB
	Lo [mH]	1000	1000
	Co [µF]	100	1000
Ex approval acc. to conformity certificate	IS-1.106		
Ex approval acc. to conformity certificate	IECEx TUN 06.0010 X		
Application area	II 3 G		
max.Output voltage U _o	≤ 5 V		
max. Output current I _o	≤ 2 mA		
max. Output power P _o	≤ 2.6 mW		
Indication			
Operational readiness	green		
Error indication	red		

Dimensions



temperature measuring amplifier**IM34-11EX-CI**

Degree of protection	IP20
Ambient temperature	-25 ...+ 70 °C
Housing length	104 mm
Housing width	18 mm
Housing height	110 mm
Weight	134 g
Mounting instruction	Mounting on DIN rail or mounting panel
Housing material	polycarbonate/ABS
Electrical connection	4 x 3-pole removable terminal blocks, reverse polarity protected, screw connection
Terminal cross-section	1 x 2.5 mm ² / 2 x 1.5 mm ²