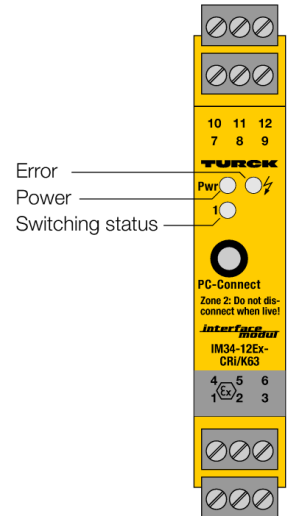
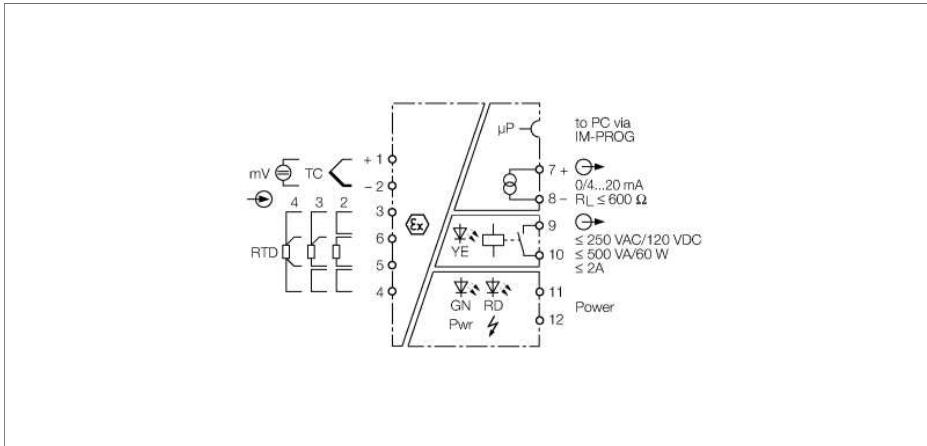


**Temperature measuring amplifier
1-channel
IM34-12Ex-CRi/K63**



The temperature measuring amplifier IM34-12EX-CRi/K63 is designed to evaluate the temperature-dependent variations of resistance temperature detectors, thermoelements or low voltages and to output them as temperature-linear current signals between 0/4...20 mA. The special device K63 analyzes standard PT100/NI100 acc. to IEC 751, as well as Pt100 acc. to Gost, also CU50, CU53 CU100 and CuZn100 acc.to Gost.

Moreover, standard thermoelements B, E, J, K, L, N, R, S and T, also the types L, A1,A2,A3 and M acc. to Gost can be connected. The device has an additional relay output to monitor over or underrange of a limit value.

PC 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 at TURCK under the type name IM-PROG (ident no. 6890422).

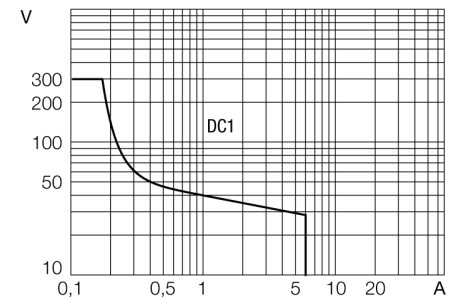
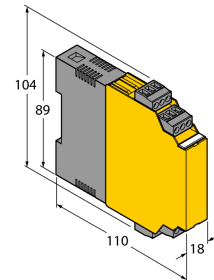
The following settings can be made with the DTM:

- Connection mode (2, 3 and 4-wire technology)
- Lower measuring range
- Upper measuring range
- Limit value
- Input circuit monitoring for wire-break
- Analog output adjustable in the event of input circuit errors: 0 resp. > 22 mA
- Internal or external cold junction compensation
- Output current (0/4...20mA)
- Temperature unit (°C or °K)
- Mode (resistance, thermoelement, low voltage, line compensation)

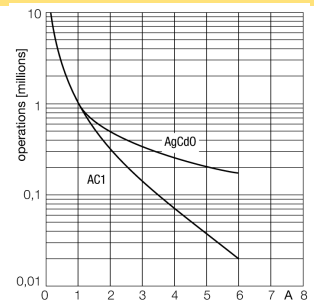
- **Intrinsically safe input circuits Ex ia**
- **Application area acc. to ATEX: II (1) G; II (1) D**
- **Installation in zone 2**
- **HART®**
- **Removable terminal blocks**
- **Connection of PT100 sensors acc. to IEC 751 and GOST**
- **Connection of thermocouples acc. to IEC 584 and GOST**
- **Parametrized via FDT/DTM**
- **Complete galvanic separation**

**Temperature measuring amplifier
1-channel
IM34-12Ex-CRi/K63**

Dimensions



Output relay electrical lifetime



Type code	IM34-12Ex-CRi/K63
Ident no.	7506605
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	Pt100 Ni100 thermocouple
Pt100	(IEC 751), 2, 3 and 4-wire technology, acc. to Gost: PT100, Cu50, Cu53, Cu100, CuZn100
Ni100	(DIN 43760), 2, 3 and 4-wire technology
Probe current	≤ 0.2 mA
Thermoelements	B, E, J, K, N, R, S, T (ITS 90/IEC 584), L (DIN 43710), acc. to Gost: L, A-1, A-2, A-3, M
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 circuits (digital)	1 x relays (NO)
Relay switching voltage	≤ 250 VAC/120 VDC
Switching current per output	≤ 2 A
Switching capacity per output	≤ 500 VA/60 W
Switching frequency	≤ 10 Hz
Contact quality	AgNi, 3μ Au
Output	adjustable output mode
Reference temperature	23 °C
Accuracy current output	± 5 μA
Temperature drift analogue output	0.0025 %/K
Temperature drift RTD input	± 3 mΩ/K
Temperature drift TC input	3.2 μV / K (of 320mV)
Accuracy RTD input	± 50 mΩ
Accuracy TC input	± 15 μV
Cold junction compensation error	2-wire < 100mΩ after line compensation 3-wire < 100mΩ with asymmetrical wiring 4-wire < 50mΩ with cold junction compensation with IM-3-CJT < 1K
Galvanic separation	
Test voltage	2.5 kV

**Temperature measuring amplifier
1-channel
IM34-12Ex-CRi/K63**

Ex approval acc. to conformity certificate	TÜV 02 ATEX 1898
Application area	II (1) G, II (1) D
Protection type	[Ex ia Ga] IIC ; [Ex ia Da] IIC ;
Max.output voltage U _o	≤ 5 V
Max. output current I _o	≤ 2.5 mA
Max. output power P _o	≤ 3 mW
Rated voltage	250 V
Characteristic	linear
Internal inductance/capacitance L/C _i	negligibly small
External inductance/capacitance L _e /C _e	

	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
Protection class for belonging equipment	Ex nA nC [ic Gc] IIC T4
Max.output voltage U _o	≤ 5 V
Max. output current I _o	≤ 2.5 mA
Max. output power P _o	≤ 3 mW
Internal inductance/capacitance L/C _i	negligibly small
External inductance/capacitance L _e /C _e	

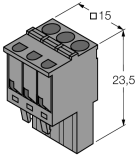
	IIC	IIB
Ex ic		
Lo [mH]	100	100
Co [µF]	3.6	18

MTTF 200 years acc. to SN 29500 (Ed. 99) 40 °C

Indication	
Operational readiness	green
Switching state	yellow
Error indication	red

Protection class	IP20
Ambient temperature	-25...+70 °C
Storage temperature	-40...+80°C
Dimensions	104x 18x 110 mm
Weight	150 g
Mounting instruction	For 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
Tightening torque	0.5 Nm

Accessories

Type code	Ident no.	Description	Dimension drawing
IM-CC-3X2BU/2BK	6900475	Cage clamp terminals for IM modules (Ex devices; width 18 mm); 2 blue/2 black, 3-pin, included in delivery.	
IM-PROG III	7525111	The programming adapter IM-PROG III is used for parametrization of TURCK IM and IMB devices via FDT/DTM and for galvanic separation.	