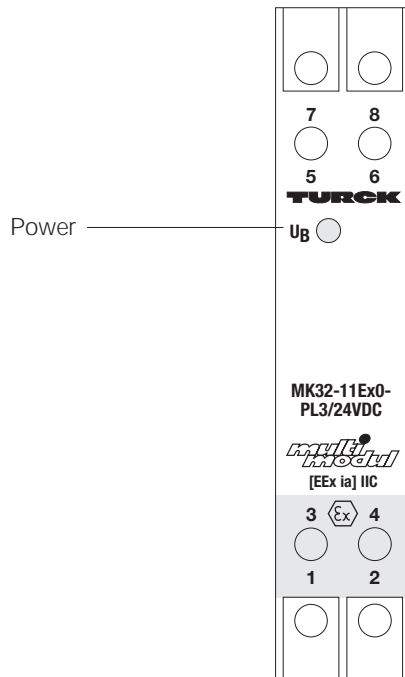


PT100 Measuring Amplifier MK32-11Ex0-PL3/24VDC



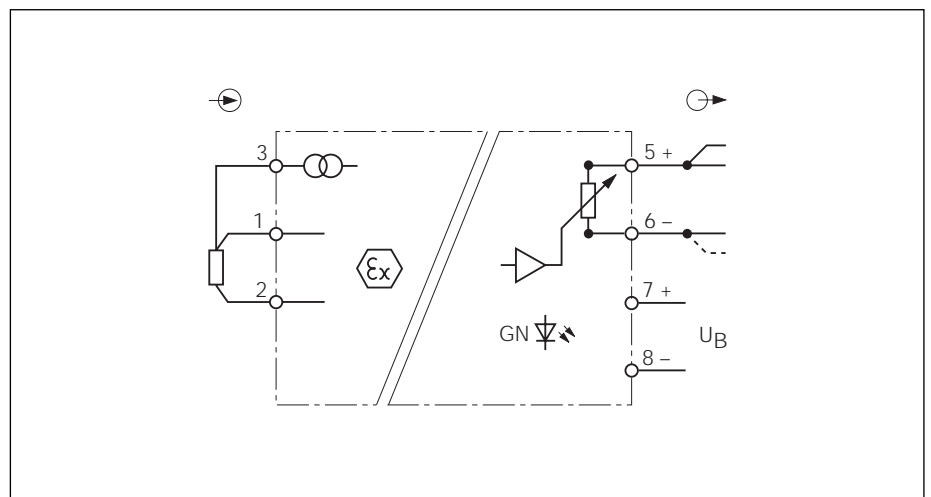
- **Intrinsically safe input circuits [EEx ia] IIC**
- **Input for 3-wire PT100 RTDs (resistance temperature detectors)**
- **3-wire outputs**
- **Operating range -100...+800 °C**
- **Output: resistance simulation**
- **Galvanic isolation between input circuit, output circuit and supply voltage**

The PT100 measuring amplifier MK32-11Ex0-PL3/24VDC detects temperature dependent changes of PT100 RTDs (IEC 751). These signals are isolated and then reproduced as electric resistance values.

The input of the measuring amplifier is suited for connection of 3-wire PT100 RTDs.

Standard 3-wire processors may be connected to the output of the device.

A green LED indicates that power is supplied to the device.



Analogue Data Transmitters



Type	MK32-11Ex0-PL3/24VDC
Ident-No.	75 090 21
Supply Voltage U_B	10...30 VDC
Ripple W_{PP}	$\leq 10 \%$
Current consumption	$< 1.4 \text{ W}$
Galvanic isolation	between input circuit, output circuit and supply voltage for 250 V_{rms} , test voltage 2.5 kV_{rms}
Input Circuits	intrinsically safe according to EN 50020
Version	PT100 RTD (IEC 751), 3-wire version
Input line resistance	$< 200 \Omega/\text{cable}$
Sensor current	approx. 250 μA
Output Circuits	
Reproduction of resistance value	max. 5 V/250 μA ...3 mA (fuse 50 mA)
Ex-Approvals acc. to Certificate of Conformity	pending
Input circuit	
- Maximum values	
No-load current U_0	-
Short-circuit current I_0	-
- Max. external inductances/capacitances [Ex ia] IIC	-
Transfer Characteristics	
Operating range	-100...+800 °C
Compensation error	$\leq 0.3 \%$ of measuring scale (ref. to -100...+800 °C)
Load impedance	$\leq 0.005 \%$ of measuring scale (ref. to -100...+800 °C)
Effect of load impedance	$\leq 0.005 \%$ of measuring scale (ref. to -100...+800 °C)
Ambient temperature sensitivity	$\leq 0.02 \%/K$ of measuring scale (ref. to -100...+800 °C)
Pulse rise time (10 %...90 %)	$< 10 \text{ ms}$
Release time (90 %...10 %)	$< 10 \text{ ms}$
LED Indication	
- Power "ON"	green
Housing	8-pole, 18 mm wide, Polycarbonate/ABS, flammability class V-0 per UL 94
Mounting	snap-on clamps for top-hat rail (DIN 50022) or screw terminals for panel mounting
Connection	via flat terminals with self-lifting pressure plates
Connection profile	$\leq 2 \times 2.5 \text{ mm}^2$ or $2 \times 1.5 \text{ mm}^2$ with wire sleeves
Degree of protection (IEC 60529/EN 60529)	IP20
Operating temperature	-25...+60 °C

