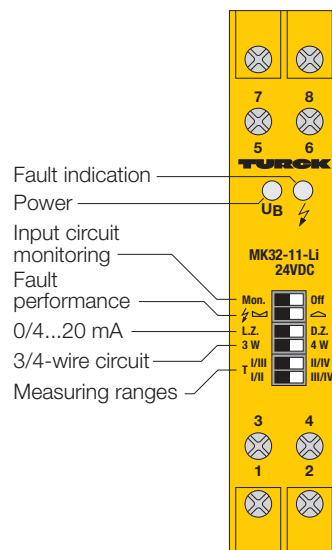


Pt100 Measuring Amplifier MK32-11-Li/24VDC 1-channel



- **1-channel Pt100 measuring amplifier**
- **Input circuits with static wire-break and short-circuit monitoring**
- **Input for Pt100 RTDs (resistance temperature detector) in 3- or 4-wire versions**
- **Operating range -50...+600 °C**
- **4 adjustable measuring ranges**
- **Current output 0/4...20 mA**
- **Galvanic isolation between input circuit, output circuit and supply voltage**
- **Programmable output performance in case of faults in the input circuit**

The Pt100 measuring amplifier MK32-11-Li evaluates the temperature dependent changes in resistance of a Pt100 resistance temperature detector (IEC 751) and transmits them as linear 0/4...20 mA current signals.

A green LED indicates that the device is powered.

The input circuit can be operated with Pt100 RTDs in 3- or 4-wire versions. The selection is carried out via a front panel switch.

The switch „Mon.“ activates input circuit monitoring for wire-break and short-circuit conditions. The current output performance in case input circuit errors can be programmed with the switch „ $\frac{1}{2}$ “. If the input circuit monitoring function is activated, a fault is indicated by either a

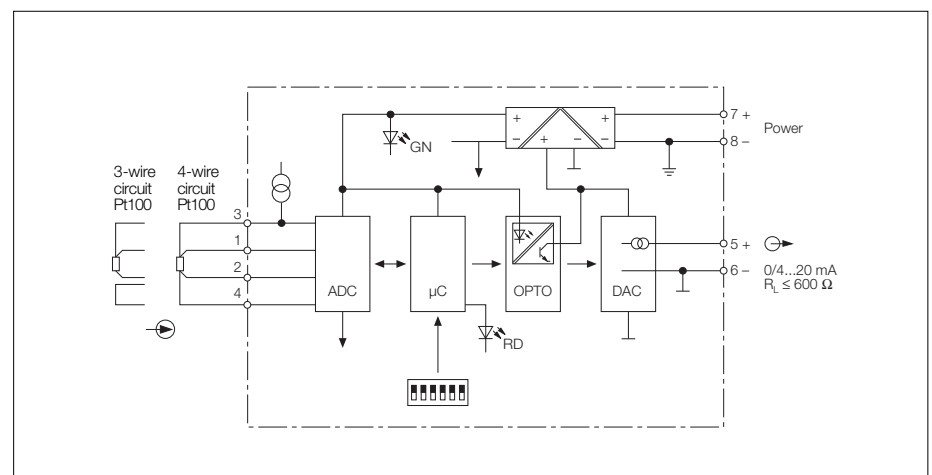
0 mA or a 22 mA signal and an illuminated red error LED.

If input monitoring is de-activated, the output signal follows the direction of the input signal (wire-break 0 mA, short-circuit 22 mA).

The measuring range is adjusted using two switches. The operating range of -200...+800 °C provides a preset selection of four measuring ranges:

- T I = -50 ... +100 °C
- T II = 0 ... +200 °C
- T III = 0 ... +400 °C
- T IV = 0 ... +600 °C

TURCK offers the IM34... series for other measurement ranges and temperature sensors (see from page 3 – 53 on).



Pt100 Measuring Amplifier MK32-11-Li

Type	MK32-11-Li/24VDC
Ident-no.	7509000
Supply voltage U_B	19...29 VDC
Ripple W_{PP}	$\leq 10\%$
Current consumption	approx. 50 mA
Galvanic isolation	between input circuit, output circuit and supply voltage for 250 V _{rms} test voltage 2.5 kV _{rms}
Input circuits	
Version	Pt100 RTD (IEC 751), 3- and 4-wire versions
Input line resistance	$< 200\ \Omega$ /cable
Sensor current	approx. 250 μ A
Output circuits	
Current output	0/4...20 mA (load impedance $\leq 600\ \Omega$)
Transfer characteristics	
Operating range	-50...+600 °C
Measuring range	4 measuring ranges (selectable via DIP-switches): T I = -50 ...+100 °C T II = 0 ...+200 °C T III = 0 ...+400 °C T IV = 0 ...+600 °C (other measuring ranges selectable ex factory)
Compensation error	$\leq 0.1\%$ of measuring scale (ref. to -50...600 °C)
Load impedance	$\leq 0.005\%$ of final value
Effect of load impedance	$\leq 0.005\%$ of final value
Ambient temperature sensitivity	$\leq 0.005\%/K$ of final value
Pulse rise time (10 %...90 %)	$< 1\text{ s}$
Release time (90 %...10 %)	$< 1\text{ s}$
LED indications	
- Power	green
- Fault indication	red
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

