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

- Intrinsic safety 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

<table>
<thead>
<tr>
<th><strong>Type</strong></th>
<th>MK32-11Ex0-PL3/24VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ident-No.</strong></td>
<td>75 090 21</td>
</tr>
</tbody>
</table>

### Supply Voltage $U_b$
- $U_b$: 10...30 VDC
- Ripple $W_{pp}$: $\leq 10\%$
- Current consumption: $< 1.4$ 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: $< 200$ Ω/cable
- Sensor current: approx. 250 µA

### Output Circuits
- Reproduction of resistance value: max. $5 V/250 \mu A...3 mA$ (fuse 50 mA)

### Ex-Approvals acc. to Certificate of Conformity
- Pending

### 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%): $< 10$ ms
- Release time (90%...10%): $< 10$ ms

### LED Indication
- Power "ON": green

### Housing
- 8-pole, 18 mm wide, Polycarbonate/ABS, flammability class V-0 per UL 94
- Snap-on clamps for top-hat rail (DIN 50022) or screw terminals for panel mounting
- Connection via flat terminals with self-lifting pressure plates with wire sleeves
- Connection profile: $\leq 2 \times 2.5$ mm² or $2 \times 1.5$ mm²
- Degree of protection (IEC 60529/EN 60529): IP20
- Operating temperature: -25...+60 °C