- Intrinsically safe input circuits [EEx ia] IIC with static wire-break and short-circuit monitoring

- Input for 2-wire or 4-wire PT100 RTDs (resistance temperature detectors)

- 2-wire or 4-wire outputs

- Operating range -200...+800 °C

- Output: resistance simulation

- Galvanic isolation between input circuit, output circuit and supply voltage

The PT100 isolating transducer, type MK32-11Ex0-PL/24VDC, detects temperature dependent changes of PT100 RTDs. These signals are isolated and then reproduced as electric resistance values.

The input of the measuring amplifier is suited for connection of 2-wire or 4-wire PT100 RTDs.

Standard 2-wire or 4-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-PL/24VDC

**Ident-No.**

75 090 20

### Supply Voltage $U_B$

- **Supply Voltage** $U_B$: 10...30 VDC
- **Ripple $W_{pp}$**: ≤ 10 %
- **Current consumption**: < 1.8 W at $I_a = 20$ mA
- **Galvanic isolation**: between input circuit, output circuit and supply voltage for 250 Vrms, test voltage 2.5 kVrms

### Input Circuits

- **Intrinsically safe according to EN 50020**
- **Version**: PT100 RTD (IEC 751), 2- and 4-wire versions
- **Input line resistance**: < 200 Ω/cable
- **Sensor current**: approx. 250 µA

### Output Circuits

- **Reproduction of resistance value**: max. 5 V/4 mA

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

- **Pending**

### Transfer Characteristics

- **Operating range**: -200...+800 °C
- **Compensation error**: ≤ 0.1 % of measuring scale (ref. to -50...600 °C)
- **Load impedance**: ≤ 0.005 % of final value
- **Effect of load impedance**: ≤ 0.005 % of final value
- **Ambient temperature sensitivity**: ≤ 0.005 %/°K of final value
- **Pulse rise time (10 %...90 %)**: < 1 s
- **Release time (90 %...10 %)**: < 1 s

### LED Indication

- **Power "ON"**: green

### Housing

- **12-pole, 27 mm wide, Polycarbonate/ABS**
- **Flammability class V-0 per UL 94**
- **Snap-on clamps for top-hat rail (DIN 50022)**
- **Screw terminals for panel mounting**
- **Via flat terminals with self-lifting pressure plates**
- **Degree of protection (IEC 60529/EN 60529)**: IP20
- **Operating temperature**: -25...+60 °C