The RTD transducer type MC32-121Ex0-RP is designed to evaluate and control temperature dependent changes from PT100 RTDs. A four digit display on the front of the device indicates the actual temperature, independent of the preset range.

The input circuit of the transducer can process signals from 2, 3 or 4-wire PT100 RTDs; the type of input device is selected during programming.

Line compensation for 2-wire circuits can be done through the transducer. To do this, a 100 Ω resistor must be connected prior to parameter adjustment to close the input circuit of the instrument.

Two setpoint outputs, each with relay and pnp short-circuit protected transistor, provide status indication.

The two setpoints are independently adjustable. They are so designed that they can be used for either "overrange" or "underrange" monitoring.

The input circuit is monitored for wire-break and short-circuit condition. The setpoint outputs will de-activate during a malfunction (relay contacts open, transistor not conducting). An "err" (error) message will flash on the four digit display and the green "Power" LED changes to red.
Analogue Data Transmitters

All functions are programmed by two toggle switches on the front panel, or with personal computer (PC). The following parameters can be preselected:

- Setpoint 1
- Setpoint 2
- Function of preset outputs (underrange/overrange)
- Switching hysteresis (preset outputs): between 0.1 and 50 °C
- Input: 2-, 3-, 4-wire circuits

The four digit LED character display on the front of the device indicates which parameter has been selected and shows the predefined parameter value.

The temperature for the full input range is adjustable from -100°...+650 °C (the smallest measuring span is 20 K).

**Type**

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<th>MC32-121Ex0-RP/24VDC</th>
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<td>Ident-No.</td>
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**Supply Voltage**

- $U_b$: 20.4...27.6 VDC
- Ripple $W_{pp}$: ≤ 10 %
- Overvoltage release: 33 V ± 1.5 V
- Power/Current consumption: < 160 mA
- Galvanic isolation: between input circuit, output circuit and supply voltage for 250 $V_{rms}$, test voltage 2.5 $kV_{rms}$

**Input Circuit**

- RTD input: PT100 DIN IEC 751, for 2-, 3- and 4-wire circuits
- Incoming cable resistance: 20 Ω/cable
- Sensor current: < 2 mA at 0 °C; < 1 mA at < 100 °C

**Output Circuits**

- Transistor output: pnp, short-circuit protected (I $L$ ≤ 50 mA)
- Relay output: 1 potential-free SPDT contact
- Switching voltage: ≤ 250 V
- Switching current: ≤ 2 A
- Switching capacity: ≤ 500 VA/60 W
- Contact material: silver-alloy + 3 µm Au

**Interface**

| RS232 serial/V.24 via adapter MC-IM-232 |

**Ex-Approval acc. to Certification of Conformity**

| PTB No. Ex-91.C.2066X |

**Effective Temperature Range**

-100°...+650 °C (low and high setpoint adjustable with switches located on the front)

**LED Indications**

- Power "ON" (2-colour LED): green: power "ON" - red: fault
- Limit values (2-colour LED): green: programming mode - yellow: at preset value
- Parameter selected for programming: green
- Display: red (4 digits)

**Eurocard**

- 100 x 160 mm (DIN 41494)
- Connector per DIN 41612, type F, 32-pole (series z+zd)

**Coding No. 16**

| 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 |