

## Description:

Programmable 4...20 mA transmitter for the installation into B connection heads. Measuring range, input type and other parameter can be adjusted with the configuration software and the serial interface.

**Output:** 4...20 mA Two-wire technique  
- Temperature linear

**Load:** 
$$R_B = \frac{U_B - 8 V}{21,6 \text{ mA}}$$

$R_B$  = Load resistance

$U_B$  = Supply Voltage



## Failure Signal:

Current raises above 21,6 mA or falls below 3,5 mA (configurable)

**Supply :** 8...36 V DC

**Working and Ambient Temperature Limits :** - 40 ... + 85 °C

**Housing :** Material Polycarbonat. Diameter 44 mm suitable for connection heads type B according to DIN 43 729

**Clamps :** Screw-clamps max. dia. 1,5 mm<sup>2</sup>

## Input RTD (Pt100) :

Smallest span : 10 K

Characteristic : temperature- linear

Temperature Influence : ±0,01%

Connection: three- or four-wire technique

Accuracy : 0,2%

## Input Thermocouples :

Smallest span : 2 mV

Characteristic : temperatur- linear

Temperature Influence : ±0,025%

Accuracy : ±0,2%

Thermocouple types according to DIN IEC 584:

NiCr - Ni (K) • Fe - CuNi (J) • Cu - CuNi (T) • NiCr - CuNi (E) • NiCrSi - NiSi (N)

Pt10Rh - Pt (S) • Pt13Rh - Pt (R) • Pt30Rh - Pt6Rh (B)

Thermocouple types according to DIN 43710:

Fe - CuNi (L) • Cu - CuNi (U)

# Transmitter for Connection Heads

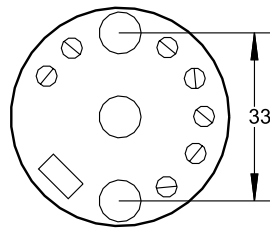
for Thermocouples and Resistance Thermometers Type MINPAQ

# Datasheet 84.6

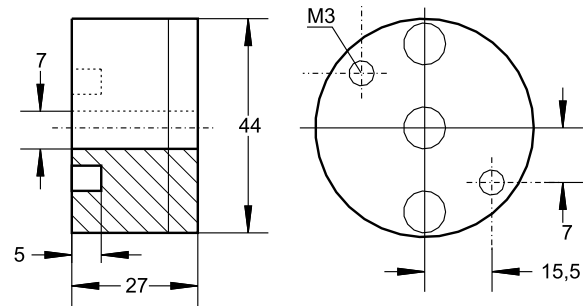
Transmitter

| Measuring ranges   |     |
|--------------------|-----|
| Ordering - code    | F G |
| - 200 ... + 200 °C | 4 1 |
| - 200 ... + 50 °C  | 4 2 |
| - 50 ... + 50 °C   | 4 9 |
| 0 ... + 60 °C      | 5 8 |
| 0 ... + 100 °C     | 6 0 |
| 0 ... + 200 °C     | 6 3 |
| 0 ... + 300 °C     | 6 5 |
| 0 ... + 400 °C     | 6 7 |
| Special - range    | 9 9 |

Please declare special ranges in plain language - see bottom

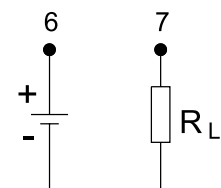
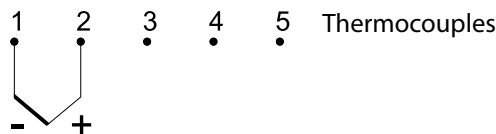
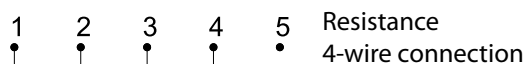
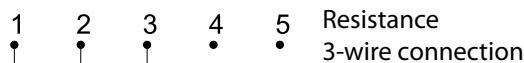


Input-Connection



Output-Connection

| Input                 |     |
|-----------------------|-----|
| Ordering - code       | H I |
| Pt 100 DIN ISO        | 1 1 |
| Pt 100 JIS            | 1 2 |
| Pt 500 DIN ISO        | 1 3 |
| Pt 1000 DIN ISO       | 1 4 |
| Ni 100                | 1 5 |
| Ni 1000               | 1 6 |
| FeCu / Ni ( J )       | 2 0 |
| FeCu / Ni ( L )       | 2 1 |
| Ni / CrNi ( K )       | 2 2 |
| NiCr / CuNi ( E )     | 2 3 |
| NiCrSi / NiSi ( N )   | 2 4 |
| Pt Rh 10 / Pt ( S )   | 2 5 |
| Pt Rh 13 / Pt ( R )   | 2 6 |
| Pt Rh 30 / Pt 6 ( B ) | 2 7 |
| Cu / CuNi ( T )       | 2 8 |
| Cu / CuNi ( U )       | 2 9 |



| Behaviour on Probe Rupture |   |
|----------------------------|---|
| Ordering - code            | J |
| Current > 21,6 mA          | 1 |
| Current < 3,5 mA           | 2 |

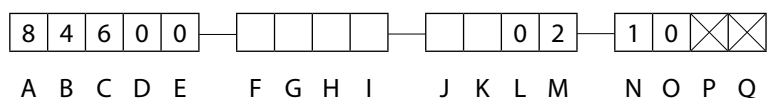
| Behaviour on Probe - Shortcut * |   |
|---------------------------------|---|
| Ordering - code                 | K |
| Current > 21,6 mA               | 1 |
| Current < 3,5 mA                | 2 |

\* A detection of probe shortcut is not possible with thermocouples

## Ordering-code :

for ordering please fill out all empty digits in the order code on the right.

The code numbers for all free digits you find in the charts above.



## For ordering please declare in plain language :

Special ranges (Min. - Measuring range 10 K) :

.....°C to .....°C correspond to 4...20 mA