

RESISTANCE THERMOMETER

Measuring insert: Fixed

Type:
RT-RM1

Sheet No.
1-40 V2.1
5650-E010818V2.1

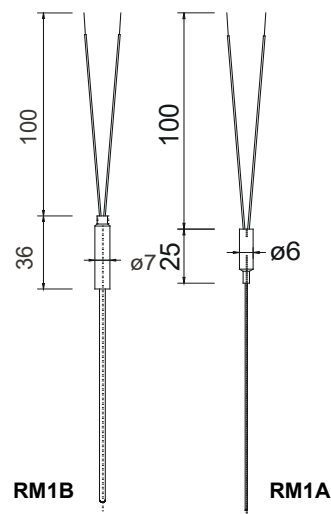


Application:

- For measuring temperatures in situations that require the sensor: to be robust, flexible/ bendable (**Note!** min bending radius 5 x D with repeated bending/ 2 x D with bending once), to have a quick reaction time
- Typically applied in: processing plants, the engineering industry, drying plants

Properties:

- Pt100 resistance thermometer in accordance with IEC 60751
- Measuring insert: Fixed
- Mechanical and thermal stress in accordance with DIN 43772
- Production in accordance with DIN 43733
- Process attachment: Coupling, soldering or other mechanical means of attachment
- Outer protective sheath: Different materials
- Ambient temperatures min/max: -25/ +120°C (depending on cable insulation)
- Approved by: GOST and TRCU (on request)



MECHANICAL SPECIFICATIONS

Protective sheath: -----
EN 1.4571 (AISI 316Ti, max. 850°C)
Special

Type: -----
RM1A (with free Leads)
RM1B (with free Leads)

Sensor diameter Ø [mm]: -----
Ø3 / Ø4.5 / Ø6
Special

Nominal length L1 [mm]: -----
150 / 300 / 500 / 1000
Special

Process attachment: -----
1/4" BSP adjustable coupling
1/2" BSP adjustable coupling
None
Special

ELECTRICAL SPECIFICATIONS

Sensor element:
1xPt100
2xPt100
1xPt1000 (only cl. B 1/1 and cl. A)
2xPt1000 (only cl. B 1/1 and cl. A)

Number of conductors:
2-wire (recommended only for Pt1000)
3-wire (only for 1xPt100)
4-wire (only for 1xPt100)

Temperature range min/max:
400°C
600°C
Special

Tolerance in acc. with IEC 60751:
Type A DIN (i.e. $\pm(0,15+0,002 \times T_{\text{actual}})^{\circ}\text{C}$)
Type B 1/1 DIN (i.e. $\pm(0,3+0,005 \times T_{\text{actual}})^{\circ}\text{C}$)
Type B 1/3 DIN (i.e. $\pm(0,1+0,0017 \times T_{\text{actual}})^{\circ}\text{C}$)
Type B 1/6 DIN (i.e. $\pm(0,06+0,00083 \times T_{\text{actual}})^{\circ}\text{C}$)
Type B 1/10 DIN (i.e. $\pm(0,03+0,0005 \times T_{\text{actual}})^{\circ}\text{C}$)
Special

Wire type:
Plast (P)
Silicone (S)
Teflon (T)
Special

Wire length:
0,1 m, 0,5 m, 1 m, 3 m,
Special

Link for further information: [Pt100 Tolerance](#)

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Calibration:

Temperature calibration are used to verify and certify the sensor to have the correct accuracy. We can do either: "In house" or "Accredited" calibration. Accredited is certified by 3.e part. Normally we do a calibration in 3 points.

Enhanced performance services:

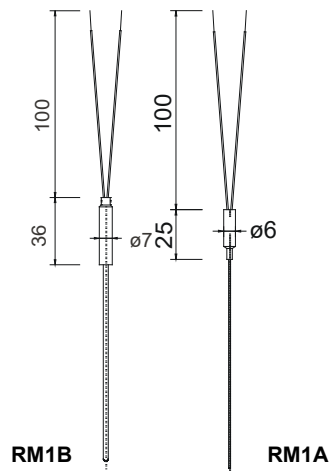
Cold applications (below -50°C) will influence the material and the measurement. CRYO treatment is needed to ensure a correct and working sensor down to -196°C.

A sensor will always drift over time, especially when there are high temperature fluctuations.

With "Ageing treatment" we stabilize the sensor to ensure a minimum drift over time. The benefits are long term stability, more correct measurement and easier planning of calibration periods.

Documentation:

Please order the correct documentation when ordering the sensor.



SIGNAL PROCESSING

Enclosure

Marine Box (112x82x42mm) -----

ABS Box (82x80x56mm) -----

NONE -----

Programmable mounted transmitter:

Measuring range min/max: -200/+850°C

Output: 2-wire, 4-20 mA

Min. span: 25°C

Ambient temperature min/max: -40/+85°C



[5333A Uninsulated for RTD](#)

[5333D EEX Uninsulated for RTD](#)

[5332A Uninsulated for RTD](#)

[5332D EEX Uninsulated for RTD](#)

[5331A Galvanic Isolated RTD / TC](#)

[5331D EEX Galvanic Isolated RTD / TC](#)

[5335A Hart 5 Protocol Standard](#)

[5335D Hart 5 Protocol CSA, FM, ATEX, IECEx](#)

[5337A Hart 5 & 7 Protocol](#)

[5337D Hart 5 & 7 Protocol CSA, FM, ATEX, IECEx](#)



Transmitter Type:			
4 mA =	C°	20 mA =	C°

[5350A Profibus standard](#)

[5350B Profibus ATEX, FM and CSA](#)

Link to further information:

[Transmitter Overview](#)

[Programmable rail mounted transmitter](#)

CALIBRATION

---Calibration:

In house (Span -33°C - +700°C)

Accredited – in laboratory (-196°C - +1200°C)

1.	Point	°C
2.	Point	°C
3.	Point	°C

More point on request

Enhanced performance services

-----Cryo treatment.

For temperature sensor under -50°C

-----Ageing:

For long term stability.

Secure minimum drift of sensor accuracy

-----Documentation

Certificate: 3.1 Material

Certificate of origin

Certificate of conformity

Certificate of GOST

Other on request