

RESISTANCE THERMOMETER
Measuring insert: Fixed

Type:
RT-RM2

Sheet No.
1-40 V2.1
5651-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)
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MECHANICAL SPECIFICATIONS

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

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
3/8" BSP adjustable coupling
1/2" BSP adjustable coupling
None
Special

Olive (for adjustable coupling): -----
With Teflon
With Steel

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
4-wire

----Temperature range min/max:

-50/+180°C
-50/+250°C
Special

----Tolerance in acc. with IEC 60751:

Type A DIN (i.e.±(0,15+0,002xTactual)°C)
Type B 1/1 DIN (i.e.±(0,3+0,005xTactual)°C)
Type B 1/3 DIN (i.e.±(0,1+0,0017xTactual)°C)
Type B 1/6 DIN (i.e.±(0,06+0,00083xTactual)°C)
Type B 1/10 DIN (i.e.±(0,03+0,0005xTactual)°C)
Special

----Electrical connection:

Cable type SS (Silicone-Silicone)
Cable type SBS (Silicone-Braided-Silicone)
Cable type TBT (Teflon-Braided-Teflon)
Special

----Cable length L2 [m]:

2 / 4 / 6 / 10
Special

----Degree of protection:

IP54
IP67

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:

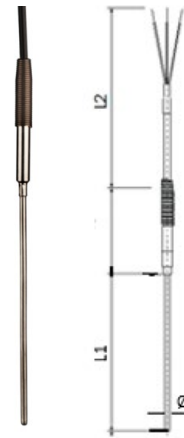
Cold applications (below -50°C) will influence the material and the measurement. CRYO treatment is needed to ensure a correct and working sensor down to -196°C.

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

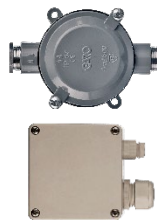
Marine Box (112x82x42mm) -----

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