

RESISTANCE THERMOMETER

Measuring insert: Fixed
Cable sensor for autoclave.

Type: RT-RC1
AUTOCLAVE

Sheet No.
2-10 V2

5751-E010721V3.1

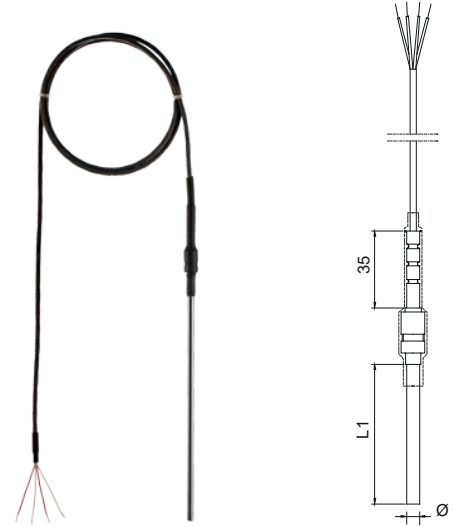


Application:

- This sensor is used for measuring temperatures in autoclaves.

Properties:

- Sensor Pt100, 2xPt100 or Pt1000 in acc. with IEC 60751
- 4 Conductors
- Mechanical and thermal stress in accordance with DIN 43772
- Parts with media contact in EN 14571 (AISI 316Ti)
- Stands media temperatures of up to max. 250°C
- Quick reaction time
- Degree of protection determined by the electrical connection; in this case IP67
- Robust
- Approved by: GOST and GOST Metrology



MECHANICAL SPECIFICATIONS

Protective sheath: -----
Stainless acid-proof steel,
EN 1.4571 (AISI 316Ti, max. 850°C)

Immersion Tube Diameter Ø: -----
Ø6 mm
Ø8 mm
Special

Immersion tube length L1: -----
60 mm
90 mm
120 mm
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
4-wire

---Tolerance in acc. with IEC 60751:
Type A DIN (i.e. $\pm(0,15+0,002 \times T_{\text{actual}})$ °C)
Type B 1/1 DIN (i.e. $\pm(0,3+0,005 \times T_{\text{actual}})$ °C)
Type B 1/3 DIN (i.e. $\pm(0,1+0,0017 \times T_{\text{actual}})$ °C)
Type B 1/6 DIN (i.e. $\pm(0,05+0,00083 \times T_{\text{actual}})$ °C)
Type B 1/10 DIN (i.e. $\pm(0,03+0,0005 \times T_{\text{actual}})$ °C)

---Cable
TBT (Teflon-Inner Braided-Teflon)
TGSB (Teflon-Glass Fibre-Braided)
Other on request

---Cable length [m]:

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:

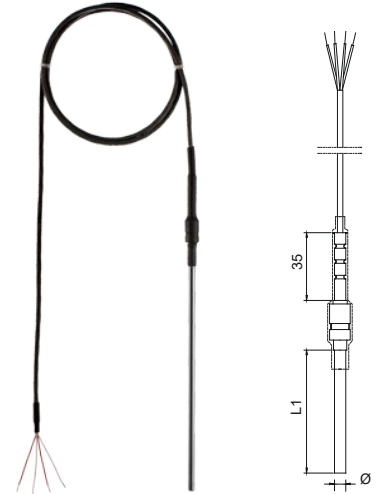
Cold applications (below -50°C) will influence the material and the measurement. CRYO treatment is needed to ensure a correct and working sensor down to -196°C.

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°

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