

**RESISTANCE THERMOMETER**  
**Measuring insert: Interchangeable**  
Multispot Thermometer

**Type:**  
**RST-T**

Sheet No.  
1-55 V2.1

5753-E010818V3.1



**Application:**

- Tank temperature sensor for measuring.

**Properties:**

- Pt100 or Pt1000 resistance thermometer in acc. with IEC 60751
- Measuring insert: fixed
- Mechanical and thermal stress in accordance with DIN 43772
- Process attachment: adjustable coupling
- Constructed so as to have the greatest possible accuracy and durability during demanding operating conditions
- Outer protective sheath: acid-proof steel IP67
- Marine approved by: DNV·GL, LR, NK, RINA, ABS and BV
- Approved by: GOST, TRCU on request.



**MECHANICAL SPECIFICATIONS**

**Protective sheath:** -----  
Wnr. 1.4571 (AISI316TI max 850°C)  
Other on request

**Mineral insulated tube diameter:** -----  
Ø3 mm  
Ø4.5 mm  
Ø6 mm  
Special

**Mineral insulated tube 1 length:** -----

**Mineral insulated tube 2 length:** -----

**Mineral insulated tube 3 length:** -----

**Mineral insulated tube 4 length:** -----

**Adjustable coupling** -----  
G1/4B  
G3/8B  
G1/2B

**Cooling neck:** -----

**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

**---Media temperature max:**  
-196°C / +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.±(0,05+0,00083xTactual) °C)  
Type B 1/10 DIN (i.e.±(0,03+0,0005xTactual) °C)

**---Cable Type:**  
SS (Silicone-Silicone) max. 180°C  
SBS (Silicone-Inner Braided-Silicone)  
TBT (Teflon-Inner Braided-Teflon)  
None

**---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**

Terminal block mounted in terminal SS Box. -----

With Transmitter mounted in terminal SS Box -----

Without SS connections box. -----

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

**-----Marine Certificate**

Certificate of DNV.GL  
 Certificate of BV  
 Certificate of Rina  
 Certificate of ClassNK  
 Certificate of LR  
 Certificate of ABS

Other on request