

**RESISTANCE THERMOMETER**  
Measuring insert: Fixed

**Type:**  
**RT-RR1**

Sheet No.  
1-30 V2.1  
5853-E010818V2.1

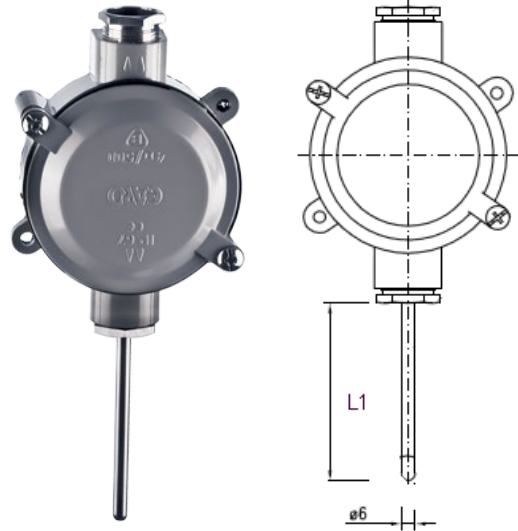


**Application:**

- For measuring indoor and outdoor air temperatures
- For damp rooms
- For freezer compartments
- For storage containers

**Properties:**

- Pt100 or Pt1000 resistance thermometer in acc. with IEC 60751
- Measuring insert: Fixed
- Process attachment: Silumin box
- Resists shocks and vibrations
- Outer protective sheath: Stainless acid-proof steel
- IP67
- Marine approved by: DNV, LR, GL, NK, RINA, ABS, KR and BV
- Approved by: GOST and GOST Metrology



**MECHANICAL SPECIFICATIONS:**

**Protective sheath:** -----  
EN 1.4571 (AISI 316Ti) max. 850°C  
Other on request

**Protective sheath diameter Ø [mm]:** -----  
Ø6  
Ø8  
Other on request

**Insert length L1 [mm]:** -----  
50  
80  
Other on request

**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:**  
-40/+80°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)

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:**

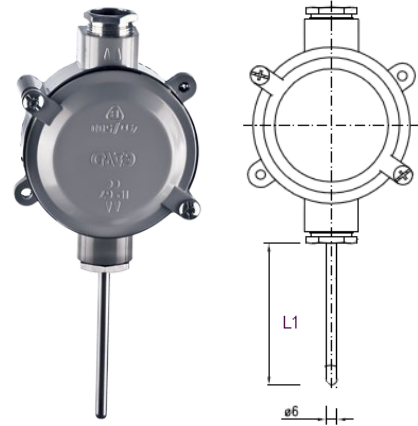
Cold applications (below -50°C) will influence the material and the measurement. CRYO treatment is needed to ensure a correct and working sensor down to -196°C.

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 socket mounted in Box . -----

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

**-----Marine Certificate**

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

Other on request