

RESISTANCE THERMOMETER

Measuring insert: Fixed
Process attachment: Clamp-on

Type:
RTBC-CO-H

Sheet No.
2-5 V2.1

5860-E010818V2.1



Application:

- For measuring temperatures in the food industry and the pharmaceutical, cosmetic and chemical/ technical industries
- Temperature measuring on pipes
- No contact to medium

Properties:

- Clamp-on
- Sensor: Pt100 in acc. with IEC 60751
- Mechanical and thermal stress in acc. with DIN 43772
- Withstands media temperatures of up to max 150°C
- Quick reaction time with silver bottom
- Degree of protection is determined by electrical connection; in this case of protection head
- Protection head can be turned to point in the desired direction
- Can be delivered with head mounted transmitter
- Reaction $T^{(\tau)}_{0,50}$, 6 – 12sek



MECHANICAL SPECIFICATIONS:

Protective sheath: -----
Stainless acid-proof steel, EN 1.4404 (AISI 316L)

Pipe diameter: -----
6 mm - Ø25 mm
Special

Protection head: -----
SRF (stainless steel, screw cap, cable gland PG9, IP67)
SRF (stainless steel, screw cap, M12x1 Plug, IP67)
Special

ELECTRICAL SPECIFICATIONS:

----**Sensor element:**
1xPt100

----**Number of conductors:**
3-wire
4-wire

----**Temperature range min/max:**
-50/+150°C
Special

----**Tolerance in acc. with IEC 60751:**
Type A DIN(i.e.±(0,15+0,002xTactual) °C)

----**Cable type: (pre-mounted in Head):**
Silicone (SS)
Silicone Braided Silicone(SBS)
Teflon Braided Teflon (TBT)

----**Cable length.**
2 m
4 m
6 m
10 m
Special

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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

Ceramic socket mounted in terminal head. -----

**Prepared for transmitter w/o ceramic socket. -----
 w/long leads**

Programmable head 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