

RESISTANCE THERMOMETER
Measuring insert: Interchangeable

**Type: RT-BC-
APV**

Sheet No.
2-5 V2

5452-E010721V3.1

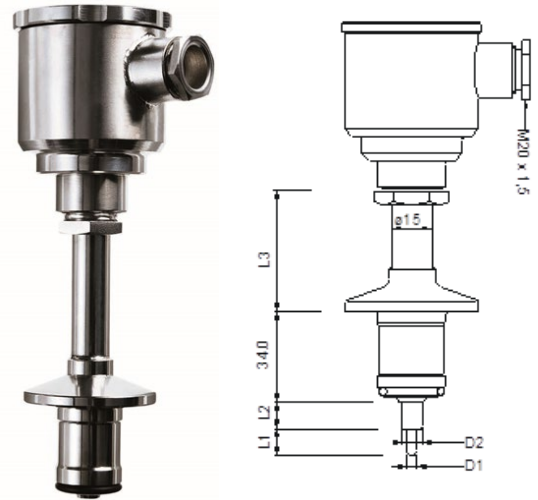


Application:

- In containers, tanks and pipe systems where the sensor can be replaced without emptying the system
- Applied in connection with "APV down part" Ø38-Clamp, tg. nr. 252851, where "dead volumes" in the process are not wanted
- Applied in the food industry and the pharmaceutical, cosmetic, and chemical/ technical industries

Properties:

- Sensor: Pt100 and Pt1000 in acc. with IEC 60751
- Mechanical and thermal stress in acc. with DIN 43772
- Parts with media contact in EN 14404 (AISI 316L)
- Withstands media temperatures up to max. 250°C
- Withstands vibrations. Quick reaction time
- Degree of protection determined by electrical connection; in this case protection head
- Following attachment of the sensor, the protection head can be turned to point in the desired direction
- Can be delivered with head mounted transmitter
- Approved by: GOST, TRCU on request.



MECHANICAL SPECIFICATIONS

Protective sheath: -----
EN 1.4404 (AISI 316Ti) max. 850°C

Extension length L3: -----
30 mm
Special

Immersion tube length L2: -----
10 mm
Special

Immersion tube length L1: -----
10 mm
Special

Immersion Tube Diameter D2: -----
Ø8 mm
Special

Immersion Tube Diameter D1: -----
Ø5 mm / Ø6 mm
Special

Surface area of parts with media contact: -----
Mechanically polished <0,8 µm
Electro-polished <0,5 µm

Protection head: -----
B (aluminium (Al), enamelled, low cap, IP62)
BRF-M16 (stainless steel, screw cap, M20x1,5, IP67)
BRF-M20 (stainless steel, screw cap, M20x1,5, IP67)
SRF (stainless steel, screw cap, Cable Gland PG9, II)
SRF (stainless steel, screw cap, M12x1 Plug, IP67)

Cable gland (pre-mounted): -----
None (standard – cable entry M20x1.5)
Plastic
Nickle plated brass
Stainless acid-proof steel

Please specify cable diameter: -----

ELECTRICAL SPECIFICATIONS

---Plug (pre-mounted In Head):
M12 (for M20)
Harting (specify type)
Other on request
None

---Cable (pre-mounted in Head):
SS (Silicone-Silicone) max. 180°C
SBS (Silicone-Inner Braided-Silicone) max. 180°C
TBT (Teflon-Inner Braided-Teflon) max. 250°C
None

---Cable length [m]:

---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:
+180°C
+250°C

---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:

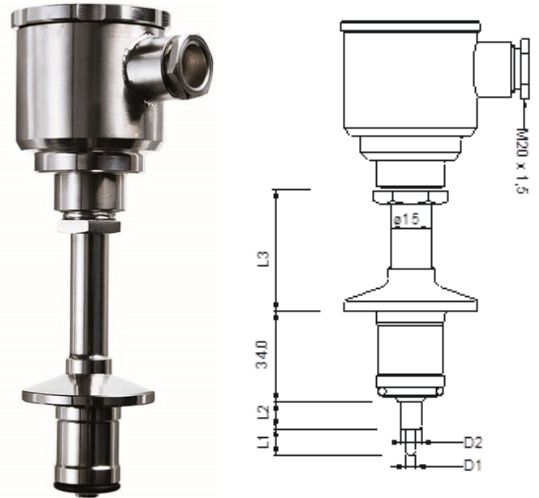
Cold applications (below -50°C) will influence the material and the measurement. CRYO treatment is needed to ensure a correct and working sensor down to -196°C.

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

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°

Programmable rail mounted transmitter

Link for further information to [Rail mounted transmitter](#)

Link for further information: [Transmitter Overview](#)

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

Others on request