RESISTANCE THERMOMETER **Measuring insert: Fixed**	**Type: RT-BUI-R**	5451-E060524V3.2

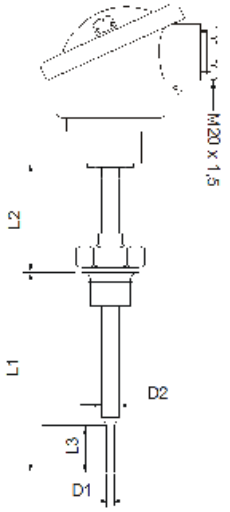
Application:

- For measuring temperatures where a quick reaction time is required
- Typically applied in:
  - processing plants
  - power plants
  - district heating, energy distribution

Properties:

- Pt100 resistance thermometer in accordance with IEC 60751
- Mechanical and thermal stress in accordance with DIN 43772
- Process attachment: Welded or adjustable coupling
- Measuring insert: Fixed, short reaction time
- Outer protective sheath: Stainless acid-proof steel
- Modular construction and standard length minimizes the number of spare parts
- Can be delivered with head mounted transmitter
- Marine approved by: DNV, LR, NK, RINA, ABS and BV





MECHANICAL SPECIFICATIONS

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

Sensor diameter D2 [mm]: ----------
Ø6 / Ø8 / Ø9 / Ø11 / Ø15
Other on request

Extension length L2 [mm]: ----------
None (13 mm) / 50 / 100 / 150
Other on request

Immersion length L1 [mm]: ----------
50 / 100 / 150 / 200 / 250 / 300
Other on request

Reduced tip: ----------
Standard: L3 = 18mm / D1 = Ø3mm
Other on request

Process attachment: ----------
1/4" BSP welded coupling (max. Ø9mm)
1/2" BSP welded coupling
1/2" NPT welded coupling
3/4" BSP welded coupling
1" BSP welded coupling (min. Ø11mm)
Other on request

Protection head: ----------
B (aluminium (Al), enamelled, low cap, IP62)
BH (Al, enamelled, high cap, IP62)
BSB (Al, tilting lid w/screw, low cap, IP65)
BSBH (Al, tilting lid w/screw, high cap, IP65)
BSBH-W (Al, tilting lid, high cap, digital display (excl. tr.), IP65)
CE (Al, enamelled, screw cap, IP68)
BRF (stainless steel, screw cap, M20x1,5, IP67)
BRF-EEX (stainless steel, screw cap, M20x1,5, IP67)
B-SRF (sanitary, stainless steel, screw cap, M20x1,5, IP67)
Other on request

Cable gland (pre-mounted): ----------
None (standard – cable entry M20x1.5)
Plastic
Nickle platted 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
+400°C
+600°C (only cl. B 1/1 Pt100 and Pt1000)

---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

Date:

Part No.:

Kjaerulf Pedersen a/s, Taastrupgaardsvej 8-10, DK-2630 Taastrup, Tel.: +45 39760203, sales@kp-as.com, www.kp-as.com

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RESISTANCE THERMOMETER
Measuring insert: Fixed

Type: RT-BUI-R

5451-E060524V3.2

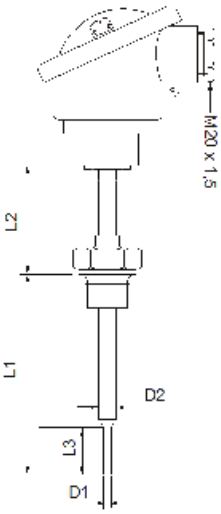
Calibration:
Temperature calibration are used to verify and certify the sensor to have the correct accuracy. We can do either: “In house” or “Accredited” calibration. Accredited is certified by 3.e part. Normally we do a calibration in 3 points.

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

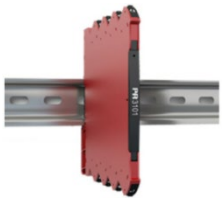


Transmitter Type:			
4 mA =	C°	20 mA =	C°

Link to further information:

Transmitter Overview

Programmable rail mounted transmitter



CALIBRATION

None ---**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

☐ ---**Marine Certificate**
Certificate of DNV
Certificate of BV
Certificate of Rina
Certificate of ClassNK
Certificate of LR
Certificate of ABS

Other on request

Save Print Submit

Date:

Part No.:

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