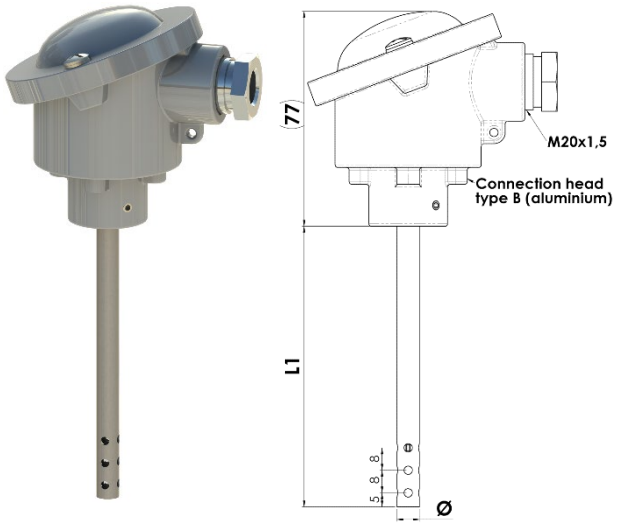
RESISTANCE THERMOMETER **Measuring insert: Fixed**	**Type: RT-AUFO**	Sheet No. 1-10 V2.1 **5455-E010321V3.1**

Application:

- For measuring air-temperature
- Field of application: up to 250°C
- Typically applied in:
  - Processing plants
  - District heating, energy distribution
  - Ventilation, HVAC and Climate control.

Properties:

- Pt100 resistance thermometer in accordance with IEC 60751
- Measuring insert: Fixed
- Withstands moisture
- Sensor: Quick reaction time
- Process attachment: Adjustable nipple or flange
- 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
- Sensor max. IP62
- 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 Ø [mm]: ----------
Ø8
Other on request

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

Process attachment: ----------
1/2" BSP adjustable nipple
1/4" BSP adjustable nipple
None
Other on request

Protection head: ----------
B (aluminium (Al), enamelled, low cap, IP62)
BH (aluminium, enamelled, high cap, IP62)
BSB (aluminium, tilting lid w. screw, low cap, IP65)
BSBH (aluminium, tilting lid w. screw, high cap, IP65)
BRF-M20 (stainless, screw cap, M20x1,5, IP67)
CE (aluminium, enamelled, screw cap, IP68)
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):
M12 (for M20)
Harting (specify type)
Other on request
None

--Cable (pre-mounted):
SS (Silicone-Silicone) max. 180°C
SBS (Silicone-Inner Braided-Silicone)
TBT (Teflon-Inner Braided-Teflon)
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

Date:

Part No.

Kjaerulf Pedersen a/s, Taastrupgaardsvej 8-10, DK-2630 Taastrup, Tel.: +45 39760203, Fax: +45 39760501, sensor@kp-as.com, www.kp-as.com

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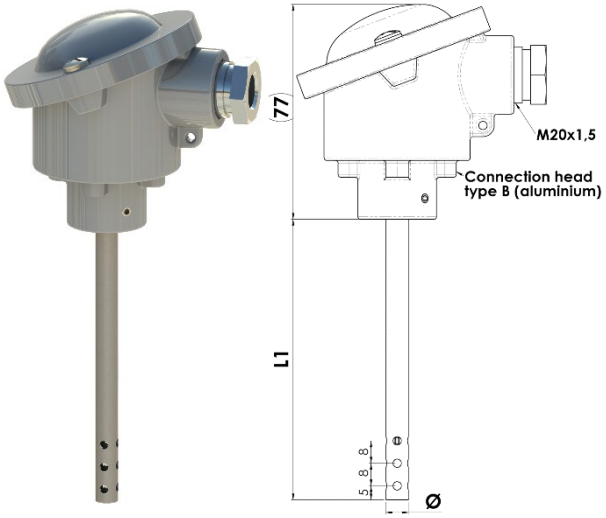
RESISTANCE THERMOMETER **Measuring insert: Fixed**	**Type: RT-AUFO**	Sheet No. 1-10 V2.1 **5455- E010321V3.1**

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

Head mounted transmitter

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

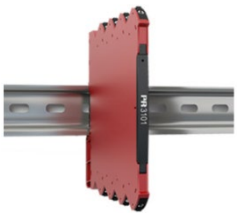
5333A Uninsulated for RTD
5333D EEX Uninsulated for RTD
5332A Uninsulated for RTD
5332D EEX Uninsulated for RTD
5331A Galvanic Isolated RTD / TC
5331D EEX Galvanic Isolated RTD / TC
5335A Hart 5 Protocol Standard
5335D Hart 5 Protocol CSA, FM, ATEX, IECEx
5337A Hart 5 & 7 Protocol
5337D Hart 5 & 7 Protocol CSA, FM, ATEX, IECEx



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

Link for further information to Rail mounted transmitter

Link for further information: Transmitter Overview



CALIBRATION

None ----**Calibration:**
In house (Span)
Accredited – in laboratory

1.	Point	°C
2.	Point	°C
3.	Point	°C

Enhanced performance services

---**Cryo treatment.**
For temperature sensor under -50°C

---**Ageing:**
For long term stability.

---**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

Date:

Part No.

Kjaerulf Pedersen a/s, Taastrupgaardsvej 8-10, DK-2630 Taastrup, Tel.: +45 39760203, Fax: +45 39760501, sensor@kp-as.com, www.kp-as.com

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