

RESISTANCE THERMOMETER
Measuring insert: Fixed

Type:
RT-REG2

Sheet No.
1-14 V2.1
5851-E010217V2.1

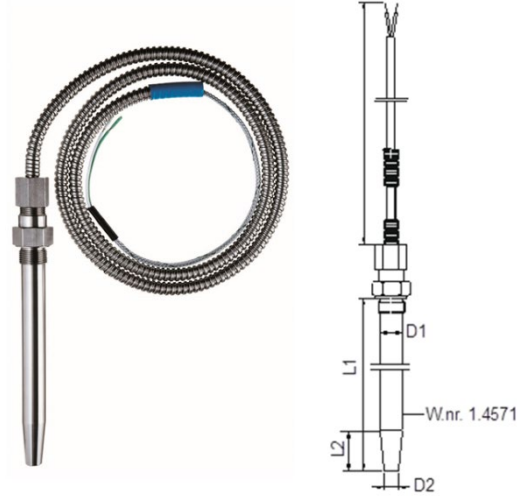


Application:

- For measuring and regulating exhaust gas in stationary or maritime
 - diesel engines
 - turbines

Properties:

- Media temperatures up to 600°C
- Ambient temperature up to 200°C
- Process attachment: weld-in nipple
- Measuring insert: interchangeable
- Pt100 and Pt1000 resistance thermometer in acc. with IEC 60751, type B1/1DIN
- Mechanical and thermal stress in acc. with DIN 43772
- Cable with clamp, type TGSB (Teflon-Glass Fibre-Braided)
- Constructed to have the greatest possible accuracy and durability during demanding operating conditions
- Outer protective sheath: acid-proof steel
- 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

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

Reduced Tip:
50 mm
Other on request

Process attachment:
1/2" BSP welded coupling
3/4" BSP welded coupling
Other on request

Information regarding the connection between process attachment and immersion tube dimensions:

Thread	D1 mm	D2 mm	L2 mm
1/2" BSP	18	12	40
3/4" BSP	22	15	40

ELECTRICAL SPECIFICATIONS

1xPt100 **Sensor element:**
1xPt100
2xPt100
1xPt1000 (only cl. B 1/1 and cl. A)
2xPt1000 (only cl. B 1/1 and cl. A)

2-wire **Number of conductors:**
2-wire (recommended only for Pt1000)
3-wire
4-wire

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)

Cable
SBS (Silicone-Inner Braided-Silicone) max. 180°C
TBT (Teflon-Inner Braided-Teflon) max. 250°C
TGSB (Teflon-Glass Fibre-Braided) max. 250°C
Other on request

Cable length [m]:

Link for further information: [Pt100 Tolerance](#)

THERMOCOUPLE THERMOMETER
Measuring insert: Fixed

Type:
TC-TEG2

Sheet No.
3-40 V2.1

5851-E010818V2.1

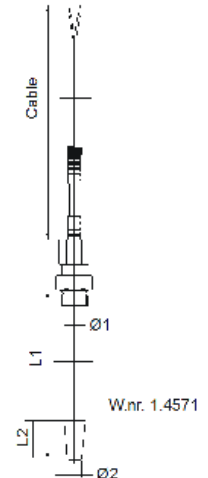


Application:

- For measuring and regulating exhaust gas in stationary or maritime
 - diesel engines
 - turbines

Properties:

- Media temperatures up to 850°C
- Ambient temperature up to 200°C
- Process attachment: Adjustable nipple
- Immersion length: Adjustable
- Measuring insert: Fixed
- Tolerance in acc. with:
DIN IEC 584-1, DIN IEC 584-2, DIN 43710
- Constructed to have the greatest possible accuracy and durability during demanding operating conditions
- Outer protective tube: Stainless acid-proof steel
- Marine approved by: DNV,, GL, NK, RINA, ABS and BV



MECHANICAL SPECIFICATIONS:

Protective tube: -----
Thermowell, EN 1.4571 (AISI 316Ti)

Immersion length L1 [mm]: -----
100 / 150 / 200
Special

Process attachment: -----
1/2" BSP
3/4" BSP
Special

Information about the connection between process attachment and immersion tube dimensions

Thread:	D1 mm	D2 mm	L2 mm
1/2" BSP	18	12	40
3/4" BSP	22	15	40

ELECTRICAL SPECIFICATIONS

Cable
TGSB (Teflon-glass Fibre-braided)
SGSB (Silicone-Glass Fibre-Braided)
Special

Cable length [m]:

Type K **Sensor element:**
Type K (NiCr-Ni) max. +1150°C
Type J (Fe-CuNi) max. +700°C
Type E (NiCr-CuNi) max. +800°C
Type N (NiCrSi-Ni) max +1250°C
Special

1 x TC **Number of thermocouples:**
1xTC
2xTC

Class 1 **Tolerance in acc. with DIN 43732:**
Class 1 for K,J,N,E (i.e. $\pm 1,5^{\circ}\text{C}$ or $\pm(0,0040xT)$)
Class 2 for K,J,N,E (i.e. $\pm 2,5^{\circ}\text{C}$ or $\pm(0,0075xT)$)
Class 1 for T (i.e. $\pm 0,5^{\circ}\text{C}$ or $\pm(0,0040xT)$)
Class 2 for T (i.e. $\pm 1,5^{\circ}\text{C}$ or $\pm(0,0075xT)$)

Link for further information: [Pt100 Tolerance](#)

THERMOCOUPLE THERMOMETER
Measuring insert: Fixed

REG2/TEG2

Sheet No.
 3- 40 V2.1

5851-E010818V2.1



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:

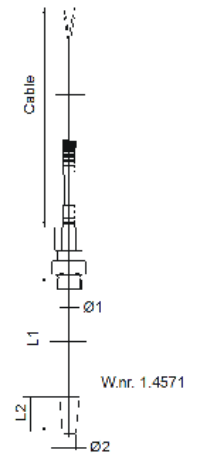
Cold applications (below -50°C) will influence the material and the measurement. CRYO treatment is needed to ensure a correct and working sensor down to -196°C.

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

Enclosure

Marine Box (112x82x42mm) -----

ABS Box (82x80x56mm) -----

NONE -----

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](#)
- [5334A Uninsulated for TC](#)
- [5334B Galvanic Isolated TC](#)
- [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:		<input type="text"/>	
4 mA =	<input type="text"/>	C°	20 mA =
	<input type="text"/>	C°	<input type="text"/>

- [5350A Profibus standard](#)
- [5350B Profibus ATEX, FM and CSA](#)

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	<input type="text"/>	°C
2.	Point	<input type="text"/>	°C
3.	Point	<input type="text"/>	°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