

**THERMOCOUPLE THERMOMETER**  
Measuring insert: Fixed

**Type:**  
**TEG2-IN 1**

Sheet No.  
3-41 V2.1  
5553-E010818V2.1



**Application:**

The TC-TEG2-IN 1 is an angular mineral insulated thermocouple insert. It is used for measuring and regulating exhaust gas in connection with stationary or maritime engines. Is used in ship engines worldwide.

**Properties:**

- Media temperatures up to 850°C
- Ambient temperature up to 200°C
- Measuring insert: Fixed
- Tolerance acc. to:  
DIN IEC 584-1  
DIN IEC 584-2  
DIN 43710
- Braided cable
- Constructed to have the greatest possible accuracy and durability during demanding operating conditions
- Marine approved by: DNV - GL, LR, NK, RINA, ABS, KR and BV
- Approved by: GOST and GOST Metrology



**MECHANICAL SPECIFICATIONS:**

**Protective sheath:** -----  
EN 2.4816 (NiCr15Fe)

**Protective sheath diameter Ø [mm]:** -----  
Ø4,5 / Ø6  
Special

**Insert length L1 [mm]:** -----  
45 / 80 / 138 / 150  
Special

**ELECTRICAL SPECIFICATIONS:**

**-----Sensor type:**  
Type K (Fe-CuNi) max. +1150°C  
Special

**-----Number of thermocouples:**  
1xTC  
2xTC  
Special

**-----Tolerance in acc. with DIN 43732:**  
Class 1  
Class 2

**-----Cable length:**  
4 m TGSB (Teflon-Glass Fibre-Braided)  
5 m TGSB (Teflon-Glass Fibre-Braided)  
7 m TGSB (Teflon-Glass Fibre-Braided)  
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**

**Marine Box** (112x82x42mm) -----

**ABS Box** (82x80x56mm) -----

**NONE** -----

Measuring range min/max: -200/+1800°C  
 Output: 2-wire, 4-20 mA  
 Min. span: 25°C  
 Ambient temperature min/max: -40/+85°C



- [5334A Uninsulated for RTD](#)
- [5334D 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

**-----Marine Certificate**

Certificate of DNV.GL  
 Certificate of BV  
 Certificate of Rina  
 Certificate of ClassNK  
 Certificate of LR  
 Certificate of ABS

Other on request