

**THERMOCOUPLE THERMOMETER**  
**Measuring insert: Fixed**

**Type:**  
**TC-TM1**

Sheet No.  
3-35 V2.1  
5550-E010818V2.1

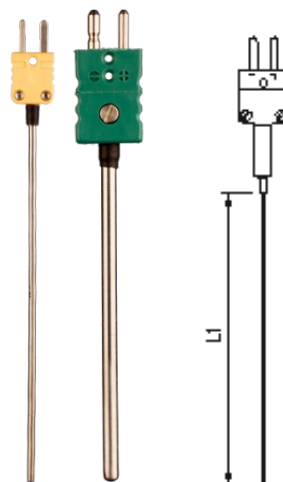


**Application:**

- For measuring temperatures in situations that require the sensor:
  - to be robust
  - to be flexible/ bendable
  - to have a quick reaction time
- Usually applied in:
  - Processing plants
  - Engines
  - Power plants

**Properties:**

- Thermocouple thermometer type K, J, E, N, T, S and R in acc. with DIN IEC 584-1
- Constructed in accordance with DIN 43733
- Measuring inset: fixed
- Process attachment: coupling, soldering or other mechanical means of attachment
- Outer protective sheath: various materials depending on the task in question
- Ambient temperatures min/max: 25/+120°C (Depending on cable insulation)



**MECHANICAL SPECIFICATIONS:**

**Protective tube:** -----

Wnr.1.4571 (AISI316TI)  
Wnr.1.4841  
Wnr.2.4816 (Inconell 600)  
Special

**Sensor diameter:** -----

Ø1mm, Ø1.5mm, Ø3mm, Ø6mm  
Special

**Immersion length:** -----

150mm  
300mm  
500mm  
1000mm  
Special

**Process attachment:** -----

None  
Adjustable nipple 1/4" BSP  
Adjustable nipple 1/2" BSP  
Special

**ELECTRICAL SPECIFICATIONS:**

**-----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  
Type T (Cu-CuNi) max +300°C  
Type R (Pt13%Rh-Pt): max +1600°C  
Type S (Pt10%Rh-Pt): max +1600°C  
Special

**-----Number of thermocouples:**

1xTC  
Special

**-----Tolerance in acc. with DIN 43732:**

Class 1 for K,J,E,N (i.e.  $\pm 1,5^{\circ}\text{C}$  or  $\pm(0,0040 \times T)$ )  
Class 1 for R,S (i.e.  $\pm 1,0^{\circ}\text{C}$  in the area 0-1100°C)  
Class 2 for K,J,E,N (i.e.  $\pm 2,5^{\circ}\text{C}$  or  $\pm(0,0075 \times T)$ )  
Class 2 for R,S,B (i.e.  $\pm 2,5^{\circ}\text{C}$  or  $\pm(0,0025 \times T)$ )  
Special

**-----Electrical connection:**

Mini plug  
Plug