Technical Information TI066T/02/en No. 71108014

# RTD Thermometer omnigrad TST410

Medium duty - Mignon head Ø 3 mm M.I. probe requiring compression fitting









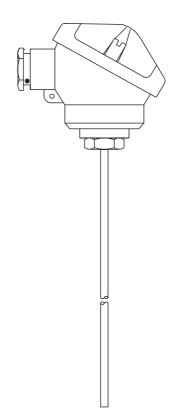












# Description

TST410 RTD thermometer assembly includes a single Pt100 probe in mineral insulated cable, 3 or 4 wire connections, with 3 mm stem diameter, a mignon terminal head and an optional compression fitting.

# Application

Typical applications for TST410 sensor are pressure-less systems such as air ducts, flues and pipelines. Special care should be given to the maximum allowed temperature surrounding the terminal head, which must be lower than 80°C.





# **Technical data**

#### **Probe**

PG9

d 3

L

sensing length 
225 mm

Sensing element: Platinum resistance, 1 Pt100  $\Omega$  at 0°C, standard version

Tolerances: class A or class B to IEC 751 Wiring: 3 or 4 wire connections

Insulation resistance:  $\geq 100 \text{ M}\Omega$ , test voltage 250 V at ambient temperature

Electrical connections: terminal block

Stem: mineral insulated cable (MgO)

Sheath: AISI 316L/W.1.4404

Standard diameter: 3 mm

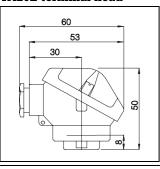
Operating temperature: -50 ... +400 °C

Response time values: according to IEC751, in moving water at 0.4 m/s

 $T_{50} = 3 \text{ s}; T_{90} = 6 \text{ s}$ 

Process connection: optional TA50 threaded compression fitting

# TA20L terminal head



Dimension: Mignon type
Protection grade: IP 67
Max. temperature: 80°C

Material: light alloy dye casting with rubber gasket under the cover

Cable connection: PG9
Thermowell entry: M10 x 1 mm

Body colour: blue according to RAL5012 - epoxy coated Cap colour: grey according to RAL7015 - epoxy coated

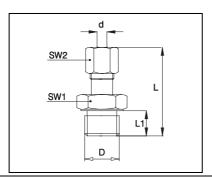
Weight: 75 g

#### Mounting accessories

TA50 Threaded

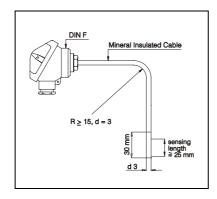
Compression Fitting: d = 3 mm;  $D = G \frac{1}{4}$ "

Sealing ring Teflon:  $T_{max}$  200°C;  $P_{max}$  10 bar (at 20°C) Sealing ring in W.1.4404:  $T_{max}$  400°C;  $P_{max}$  40 bar (at 20°C)

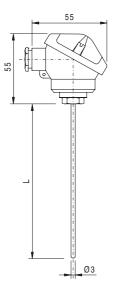


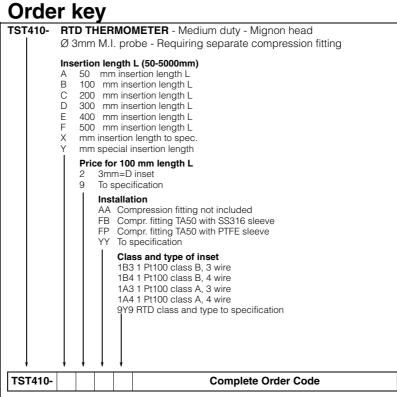
### Intallation -Bending radius

The allowed bending radius R for mineral insulated cables is  $\ge$  15 mm for 3 mm diameters (DIN 43721). The not bendable length is  $\sim$ 30 mm.



 For a correct temperature measurement the thermometer immersion length must be 20 times the probe diameter in order to eliminate thermal drift due to dissipation. Shorther immersion length can be supplied but the thermometer requires an external (process connection head) thermal insulation. insulation.





Endress+Hauser 3 Supplementary Documentation • Technical Information TA20 terminal heads

• Technical Information TA fittings

(TI 072T/02/en) (TI 091T/02/en)

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