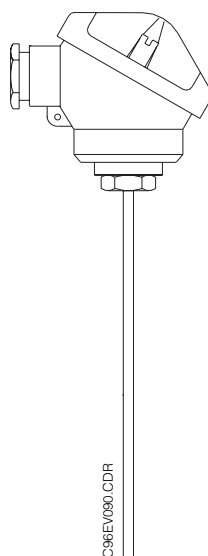


RTD Thermometer *omnigrad TST 410*

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.

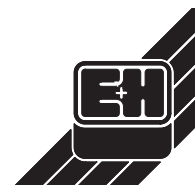
Technical data

Probe

Sensing element:	Platinum resistance, 1 x Pt100 Ω at 0°C, standard type class A or B to IEC 751
Tolerances:	
Operating temperature:	-50°C to +400°C
Wiring:	3 or 4 wire connections
Insulation resistance:	$\geq 100 \text{ M}\Omega$, test voltage 250 V at ambient temperature
Electrical connection:	terminal board
Stem:	mineral insulated cable
Sheath:	AISI 316L/W.1.4404
Standard diameter:	3 mm
Response time values:	according to IEC 751, in moving water at 0.4 m/s $T_{50} = 3 \text{ s}$; $T_{90} = 6 \text{ s}$
Connection to process:	optional TA50 Threaded compression fitting

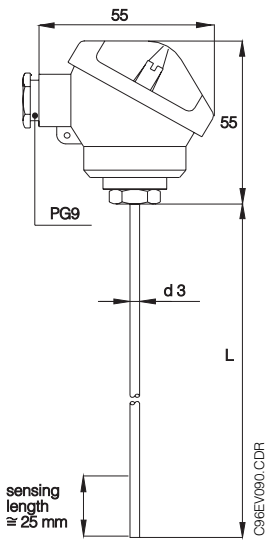
TA20L terminal head

Dimension:	Mignon type
Protection grade:	IP 55
Max. temperature:	80°C
Material:	light alloy dye casting with rubber gasket under the cover
Cable connection:	PG 9
Thermowell entry:	M10 x 1 mm
Body colour:	blue according to RAL 5012 - epoxy coated
Cap colour:	grey according to RAL 7015 - epoxy coated
Weight:	75 g



Order key

- Information : for a correct temperature measurement the thermometer immersion length must be 20 times the probe diameter in order to eliminate thermal drift due to process connection heat dissipation. Shorter immersion lengths can be supplied but the thermometer requires an external (process connection and connection head) thermal insulation.



TST410 RTD Thermometer - Medium duty - Mignon head Ø 3 mm M.I. probe - Requiring separate compression fitting

Length of the stem L

- A - 50 mm
- B - 100 mm
- C - 200 mm
- D - 300 mm
- E - 400 mm
- F - 500 mm
- Y - mm to specification

Sheath material, price per 100 mm

2 - AISI 316L - W.1.4404

Press fitting to the process

- AA - None
- FB - G 1/4", element in AISI316 / W.1.4401
- FP - G 1/4", element in PTFE

Class and type of RTD

- 1B3 - 1 Pt100, class B, 3 wires (IEC 751)
- 1B4 - 1 Pt100, class B, 4 wires (IEC 751)
- 1A3 - 1 Pt100, class A, 3 wires (IEC 751)
- 1A4 - 1 Pt100, class A, 4 wires (IEC 751)

TST410-					Complete Order Code
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Mounting accessory

TA50 Threaded Compression Fitting

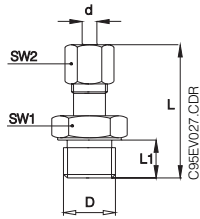
d = 3 mm ; D = G 1/4"

Sealing ring Teflon:

Tmax 200°C; Pmax 10 bar (at 20°C)

Sealing ring in W.1.4401:

Tmax 400°C; Pmax 40 bar (at 20°C)

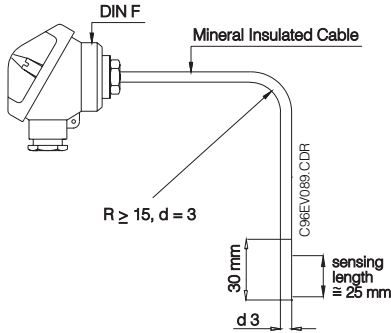


Installation

Bending radius

The allowed bending radius R for mineral insulated cables is ≥ 15 mm for 3 mm diameters (DIN 43721).

The not bendable length is ~ 30 mm.



Supplementary documentation

- ☐ TA20 terminal heads
Technical Information TI072T/02/en
- ☐ TA fittings
Technical Information TI091T/02/en

Export Division

Endress+Hauser
Instruments International
GmbH + Co.
P.O. Box 2222
D-79574 Weil am Rhein
Germany
Tel. (7621) 975-02
Tx 7-73-926
Fax (7621) 9-75-345

