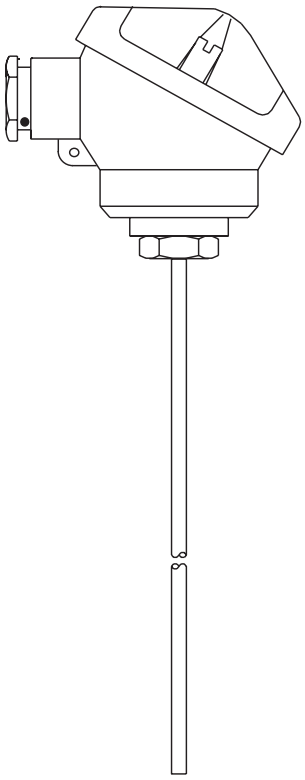
Technical Information
TI066T/02/en
No. 71108014

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.

Online
www.endress.com

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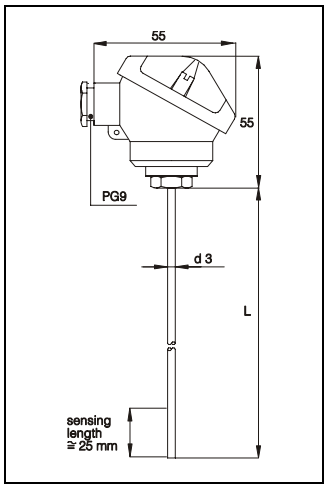
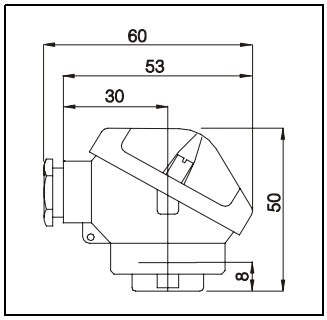
Technical data

Probe



Sensing element:	Platinum resistance, 1 Pt100 Ω at 0°C, standard version
Tolerances:	class A or class B to IEC 751
Wiring:	3 or 4 wire connections
Insulation resistance:	≥ 100 MΩ , 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 s; T_{90} = 6 s
Process connection:	optional TA50 threaded compression fitting

TA20L terminal head

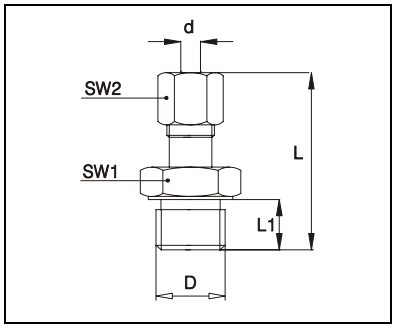


Dimension:	Mignon type
Protection grade:	IP 67
Max. temperature:	80°C
Material:	light alloy dye casting with rubber gasket under the cover
Cable connection:	PG9
Thermowell entry:	M10 x 1 mm
Body colour:	blue according to RAL5012 - epoxy coated
Cap colour:	grey according to RAL7015 - epoxy coated
Weight:	75 g

Mounting accessories

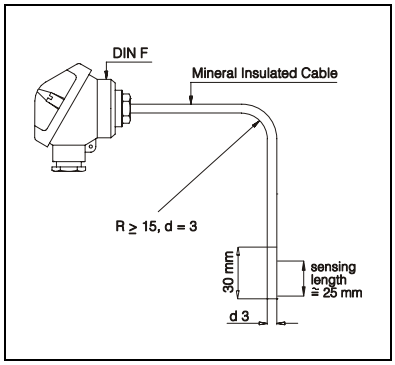
TA50 Threaded

Compression Fitting:	d = 3 mm ; D = G 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)



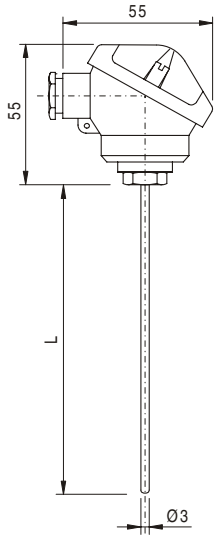
Intallation - Bending radius

The allowed bending radius R for mineral insulated cables is ≥ 15 mm for 3 mm diameters (DIN 43721). The not bendable length is ~30 mm.



Order key

- 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. Shorther immersion length can be supplied but the thermometer requires an external (process connection and connection head) thermal insulation.



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

Insertion length L (50-5000mm)
A 50 mm insertion length L
B 100 mm insertion length L
C 200 mm insertion length L
D 300 mm insertion length L
E 400 mm insertion length L
F 500 mm insertion length L
X mm insertion length to spec.
Y mm special insertion length

Price for 100 mm length L
2 3mm=D inset
9 To specification

Installation
AA Compression fitting not included
FB Compr. fitting TA50 with SS316 sleeve
FP Compr. fitting TA50 with PTFE sleeve
YY To specification

Class and type of inset
1B3 1 Pt100 class B, 3 wire
1B4 1 Pt100 class B, 4 wire
1A3 1 Pt100 class A, 3 wire
1A4 1 Pt100 class A, 4 wire
9Y9 RTD class and type to specification

TST410-					Complete Order Code

Supplementary Documentation	• Technical Information TA20 terminal heads	(TI 072T/02/en)
	• Technical Information TA fittings	(TI 091T/02/en)

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