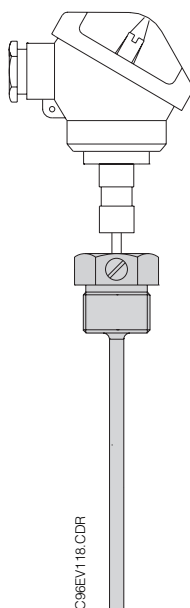


RTD Thermometer *omnigrad TST414*

Process thermometer - Mignon head

Ø 3 mm M.I. probe
with protecting pocket



Description

TST414 RTD thermometer assembly includes a single Pt100 probe in mineral insulated cable, 3 or 4 wire connections, with 3 mm stem diameter and a mignon terminal head. It is supplied with a 4.5 mm diameter pocket, which protects the probe from chemical corrosion and allows an easy replacement of the thermometer.

Application

Due to the reduced wall thickness of the pocket, it is suggested to use this thermometer assembly in processes where no strong flow is present. 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:

Tolerances:

Wiring:

Insulation resistance:

Electrical connection:

Stem:

Sheath:

TA414 Pocket

Standard diameter:

Standard material:

Process connection:

Operating temperature:

Max. operating conditions:

Response time values:

Platinum resistance, 1 x Pt100 Ω at 0°C, standard type class A or B to IEC 751

3 or 4 wire connections

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

terminal board

mineral insulated cable

AISI316L / W.1.4404

4.5 x 3 mm

AISI 316Ti / W.1.4571

G 1/2" M

-50°C to +400°C

100 bar @ 20°C ; 1 bar @ 300°C

according to IEC 751, in moving water at 0.4 m/s

$T_{50} = 10 \text{ s}$; $T_{90} = 30 \text{ s}$

TA20L terminal head

Dimension:

Protection grade:

Max. temperature:

Material:

Cable connection:

Thermowell entry:

Body colour:

Cap colour:

Weight:

Mignon type

IP 55

80°C

light alloy dye casting with rubber gasket under the cover

PG 9

M10 x 1 mm

blue according to RAL 5012 - epoxy coated

grey according to RAL 7015 - epoxy coated

75 g

Quality made by
Endress+Hauser



ISO 9001

Endress+Hauser
Nothing beats know-how



Order key

- For spares, order TST414 thermometer without pocket specifying the immersion length.
- Accuracy statement is referred to the probe only as defined by IEC751 without any protecting pocket which may introduce a thermal drift due to process connection heat dissipation in conjunction to short immersion lengths. For a correct temperature measurement the thermometer immersion length must be 20 times its diameter. Shorter immersion lengths can be supplied but the thermometer requires an external (process connection and connection head) thermal insulation.

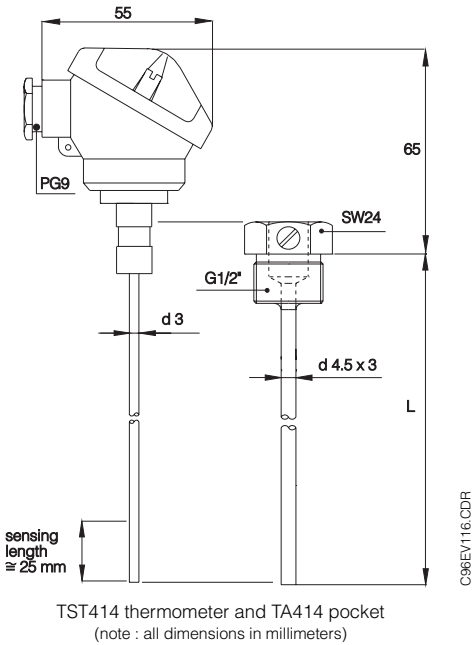
TST414- RTD Thermometer - Process thermometer - Mignon head
Ø 3 mm M.I. probe - With protecting pocket

Insertion length L
A - 50 mm
B - 100 mm
C - 200 mm
D - 300 mm
E - 400 mm
F - 500 mm
X - mm length to specification (min.50mm-max.4000mm)
Y - mm special length

Sheath material
2 - AISI316L / W.1.4404
Pocket to process
A - None
B - Ø 4.5 mm, G 1/2", in AISI316Ti / W.1.4571

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)

| | | | | | | |
|---------|--|--|--|--|--|---------------------|
| TST414- | | | | | | Complete Order Code |
|---------|--|--|--|--|--|---------------------|



Supplementary documentation

- ☐ TA20 terminal heads
- Technical Information TI072T/02/en

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