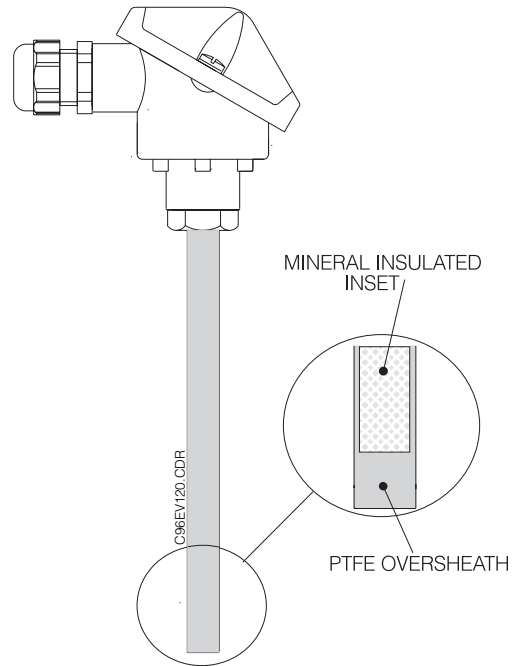


RTD Thermometer *omnigrad TST722*

**Special duty - PTFE lined
M.I. replaceable inset
with PTFE oversheath
requiring separate compression fitting**



Description

TST722 RTD thermometer assembly includes a replaceable single or double Pt100 inset, in mineral insulated cable, which can be selected between standard or glass version (for high level vibration application).

From the TET family, the inset is available either with free wires for head transmitter mounting or with terminal board.

The terminal head can be selected from

a wide choice of standard items (see the Order key or TA20 Technical Information for more details).

The inset has an external protecting PTFE oversheath to prevent from corrosion of acids.

Application

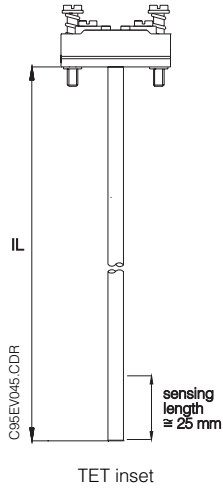
Typical applications for TST722 can be found in the chemical and pharmaceutical industry.

Technical data

Mineral Insulated Replaceable Inset

Versions:

Model	Sheath diameter (mm)	RTD element type
TET100	6 mm	standard
TET102	6 mm	glass



Sensing element: Platinum resistance, 1 or 2 x Pt100 Ω at 0°C
 Tolerances: class A or B to IEC 751, 1/3 DIN B
 Wiring: 3 or 4 wire connections
 Insulation resistance: $\geq 100 \text{ M}\Omega$, test voltage 250 V at ambient temperature
 Electrical connections: washer with 70 mm wires or terminal board
 Stem: mineral insulated cable
 Sheath: AISI 316L / W.1.4404
 Replacement: inset length IL is calculated as follows
 $IL = TL + 20 \text{ mm}$

Protecting overshooth

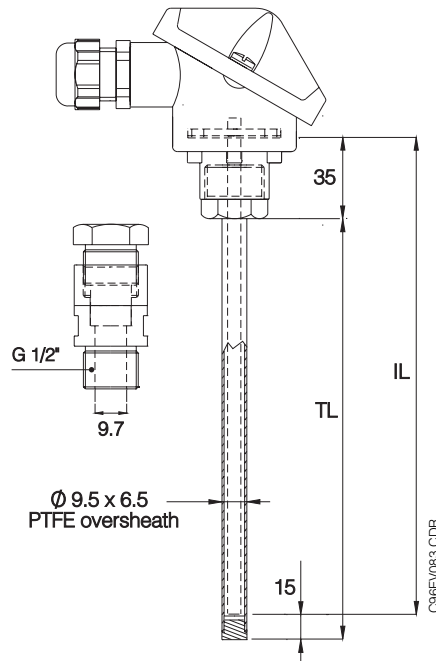
Ext. overshooth diameter: 9.5 x 6.5 mm
 Ext. overshooth material: PTFE
 Operating temperature: +0°C to +150°C
 Response time values: according to IEC 751, in moving water at 0.4 m/s
 $T_{50} = 58 \text{ s}$; $T_{90} = 163 \text{ s}$

Connection to process

Version: G 1/2" threaded compression fitting - 9.7 mm hole
 Standard material: AISI316Ti / W.1.4571
 Compression element: PTFE

Terminal head

Version: refer to Order key
 Protection class: typical IP55
 Electrical connections: PG11, PG16 or 1/2" NPT depending on head version



Note : all dimensions in millimeters

Order key

- For inset replacement see Technical data.
- Accuracy statement is referred to the replaceable inset only as defined by IEC 751 without any protecting thermowell which may introduce thermal drift due to process connection heat dissipation in conjunction to short immersion lengths. For a correct temperature measurement the thermowell 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.

TST722 RTD Thermometer - Special duty - PTFE lined M.I. replaceable inset - With PTFE overshooth Requiring separate compression fitting

Compression fitting: material ; process connection

- A - Compression fitting : none
- D - Compression fitting : PTFE ; G 1/2"

Total length TL

- A - 140 mm
- B - 195 mm
- C - 255 mm
- D - 295 mm
- E - 355 mm
- F - 385 mm
- G - 425 mm
- H - 505 mm
- K - 535 mm
- M - 715 mm
- Y - mm to specification (max length 1500 mm)

Price for 100 mm of inset with teflon overshooth TL

- B - 100 mm inset plus PTFE overshooth

Electrical connection

- 2 - washer with 70 mm wires (70 & 150 mm for 2 Pt100)
- 3 - terminal board

RTD Class and type of construction

TET100 Standard RTD

- B - standard RTD 1 Pt100, class B, 3 wires
- D - standard RTD 2 Pt100, class B, 3 wires
- E - standard RTD 1 Pt100, class B, 4 wires
- H - standard RTD 1 Pt100, class A, 3 wires
- L - standard RTD 2 Pt100, class A, 3 wires
- M - standard RTD 1 Pt100, class A, 4 wires
- P - standard RTD 1 Pt100, class 1/3 DIN, 3 wires
- Q - standard RTD 2 Pt100, class 1/3 DIN, 3 wires
- R - standard RTD 1 Pt100, class 1/3 DIN, 4 wires

TET102 Glass RTD

- 0 - glass RTD 1 Pt100, class B, 3wires
- 1 - glass RTD 2 Pt100, class B, 3 wires
- 2 - glass RTD 1 Pt100, class B, 4 wires
- 3 - glass RTD 1 Pt100, class A, 3 wires
- 4 - glass RTD 2 Pt100, class A, 3 wires
- 5 - glass RTD 1 Pt100, class A, 4 wires
- 6 - glass RTD 1 Pt100, class 1/3 DIN, 3 wires
- 7 - glass RTD 2 Pt100, class 1/3 DIN, 3 wires
- 8 - glass RTD 1 Pt100, class 1/3 DIN, 4 wires
- Y - RTD class and type to specification

Heads: model, mat., el. conn., IP

- A1 - TA20A, AI, PG16, IP55
- A2 - TA20A, AI, 1/2" NPT, IP55
- A3 - TA20A, AI, PG16, IP68
- B1 - TA20B, PA, PG16, IP55
- C1 - TA20C, AI, PG16, IP65
- D1 - TA20D, AI, PG16, IP55, Hing cap
- D2 - TA20D, AI, 1/2" NPT, IP55, Hing cap
- E1 - TA20E, AI, PG16, IP55
- F1 - TA20F, PP, PG16, IP55
- P1 - TA20P, AI, PG16, IP55, High cap
- P2 - TA20P, AI, 1/2" NPT, IP55, High cap
- T1 - TA20T, POM, PG16, IP65, dig. ind.
- U1 - TA20U, POM, PG16, IP65, IS dig
- W1 - TA20W, AI, PG16, IP65
- W2 - TA20W, AI, 1/2" NPT, IP55
- X3 - TA20X, AISI, PG11, IP65

Built-in transmitter

- 0 - Without built-in transmitter
- 1 - With built-in transmitter to be separately ordered

TST722-

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Complete Order Code

Supplementary Documentation

- TET100 Ø 6 mm M.I. inset
Technical Information TI071T/02/en
- TET102 Ø 6 mm M.I. inset
Technical Information TI140T/02/en
- TA20 terminal heads
Technical Information TI072T/02/en

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