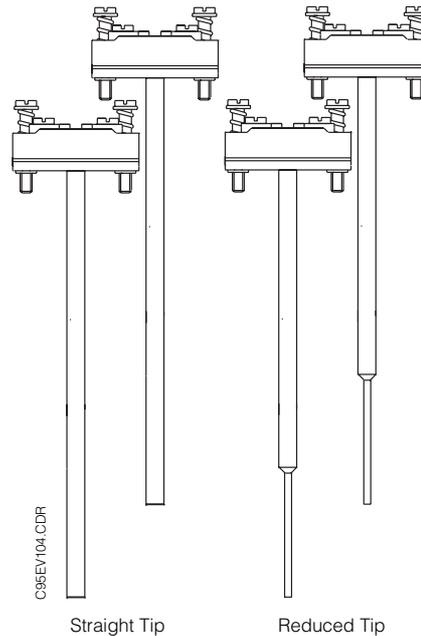


# Pt100 inset omnigrad TET90

Omni purpose -  $\Delta T$

$\varnothing$  6 mm M.I. cable - Straight and Reduced Tip  
Matched pairs Pt100



## Description

TET90 consists of a mineral insulated cable stem 6 mm diameter with a terminal block connected to a metal flange. The inset is fixed into the connection head by two spring loaded screws. In this way the tip of the inset is pressed against the bottom of the thermowell ensuring a better thermal contact. At the same time the springs compensate for the thermal expansion. TET90 utilizes matched pairs Pt100 with 2 or 4 wires design. It can be delivered with a reduced tip for fast response time. The temperature sensitive length of the inset is 25 mm from the closed end of the tube.

## Application

Typical application can be found in heat exchangers for inlet and outlet differential temperature measurement. The thermal energy can be calculated knowing  $\Delta T$  between inlet and outlet, flowrate and other parameters.

## Technical data

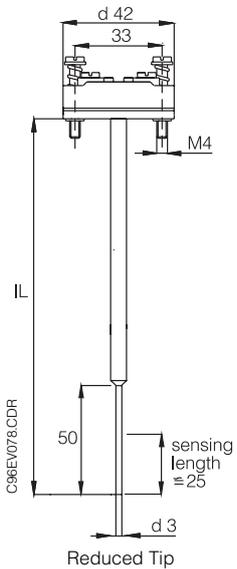
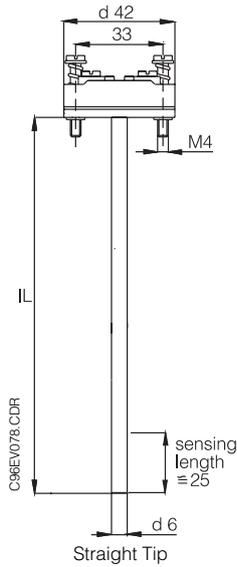
### Mineral Insulated Inset

Sensing element:	Platinum resistance, 1 x Pt100 $\Omega$ at 0°C, thinfilm type matched pairs $\pm 0.05K$ (0 $\pm$ 120°C) or $\pm 0.1K$ (-40 $\pm$ 0°C)
Tolerances:	
Operating temperature:	- 50 °C to + 200 °C
Wiring:	2 or 4 wire connections
Insulation resistance:	$\geq 100 M\Omega$ , test voltage 250 V at ambient temperature
Electrical connection:	terminal block
Stem:	mineral insulated cable
Sheath:	AISI316L / W.1.4404
Standard diameter:	6 mm
Reduced tip:	see next page
Response time values:	according to IEC 751, in moving water at 0.4 m/s $T_{50} = 2.5$ s; $T_{90} = 5.5$ s for straight tip type $T_{50} = 2$ s ; $T_{90} = 5$ s for reduced tip type
Internal resistance:	for 2 wire electrical connection compensation 0.06 $\Omega/m$ for each single conductor - straight tip type 0.12 $\Omega/m$ for each single conductor - reduced tip type

# Order key

## TET90 Pt100 inset - Omni purpose

∅ 6 mm M.I. cable - Straight and Reduced Tip - Matched pairs Pt100



Note : all dimensions in millimeters

### Insertion length IL

- U - 255 mm
- D - 315 mm
- F - 405 mm
- K - 555 mm
- X - ..... mm length to specification (min.80mm-max.5000mm)
- Y - ..... mm special length

### Sheath material

2 - AISI316L / W.1.4404

### Shape of the tip

- S - Straight tip, standard response
- T - Reduced tip, fast response

### Electrical connections

3 -Terminal block

### Class and type of inset

- 1S2 - 1 Pt100, 2 wires, cal. 0.05K (0 + 120°C)
- 1U2 - 1 Pt100, 2 wires, cal. 0.1K (-40 + 0°C)
- 1S4 - 1 Pt100, 4 wires, cal. 0.05K (0 + 120°C)
- 1U4 - 1 Pt100, 4 wires, cal. 0.1K (-40 + 0°C)

TET90-

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Complete Order Code

### Export Division

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