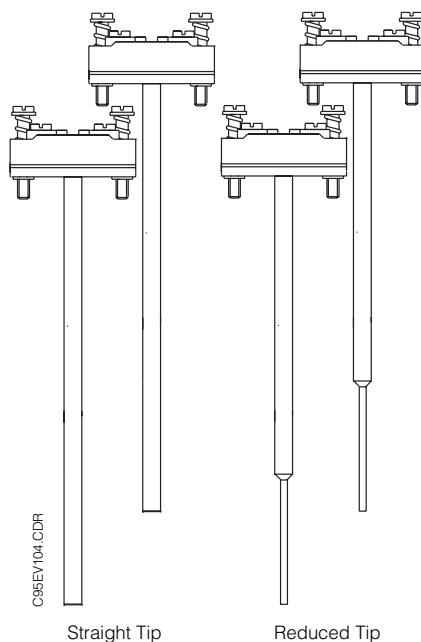


# Pt100 inset omnigrad TET90

## Omni purpose - $\Delta T$

### Ø 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:  
Tolerances:  
Operating temperature:  
Wiring:  
Insulation resistance:  
Electrical connection:  
Stem:  
Sheath:  
Standard diameter:  
Reduced tip:  
Response time values:

Platinum resistance, 1 x Pt100  $\Omega$  at 0°C, thinfilm type  
matched pairs  $\pm 0.05K$  (0÷120°C) or  $\pm 0.1K$  (-40÷0°C)  
- 50 °C to + 200 °C  
2 or 4 wire connections  
 $\geq 100 M\Omega$ , test voltage 250 V at ambient temperature  
terminal block  
mineral insulated cable  
AISI316L / W.1.4404  
6 mm  
see next page  
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  
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

Internal resistance:

Quality made by  
Endress+Hauser



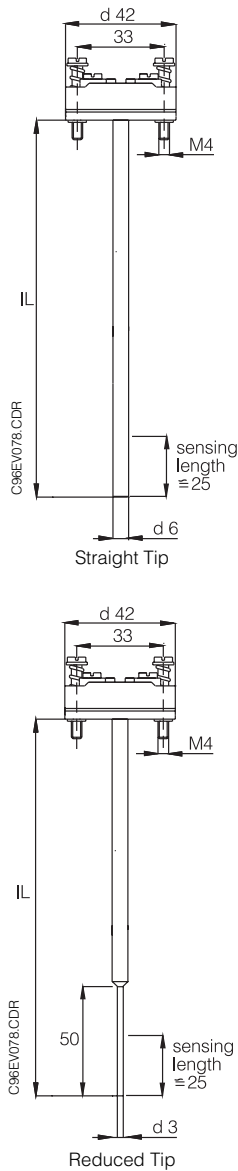
ISO 9001

**Endress+Hauser**  
Nothing beats know-how



Order key

TET90 Pt100 inset - Omni purpose  
Ø 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-						Complete Order Code
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