

## PT Compact OEM

### Screw - in resistance thermometer



### Description

The compact resistance thermometers of the PT Compact OEM series are designed for temperature measurement in applications up to 600 bar. The customer can choose different temperature ranges between  $-20^{\circ}\text{C}$  and  $+120^{\circ}\text{C}$ . The measuring ranges cover usual temperature measurement tasks in several applications. For other ranges tectsis offers the well known PT-Compact series.

The sensor element is a high end platinum thin film sensor. The integrated transmitter transforms the resistance signal of the PT100 into a linear temperature 4-20mA signal.

Electrical connection is realized by a M12x1 plug. This ensures the high IP protection (IP67).

All media affected parts and the housing are made of stainless steel. The solid drilled protection tube makes sure, that this thermometer withstands high pressure. If stainless steel is not necessary the protection tube can be made out of nickel plated brass.

### Features

- compact dimensions
- easy handling
- cost-efficient
- short delivery times
- 4-20 mA transmitter included
- service friendly

### Models

- $-20^{\circ}\text{C}$  up to  $+40^{\circ}\text{C}$  ( $-58...104^{\circ}\text{F}$ )
- $0^{\circ}\text{C}$  up to  $+60^{\circ}\text{C}$  ( $-32...112^{\circ}\text{F}$ )
- $0^{\circ}\text{C}$  up to  $+120^{\circ}\text{C}$  ( $-32...258^{\circ}\text{F}$ )
- others on request

### Applications

- engineering
- heating and cooling circuits, air condition technology
- hydraulics

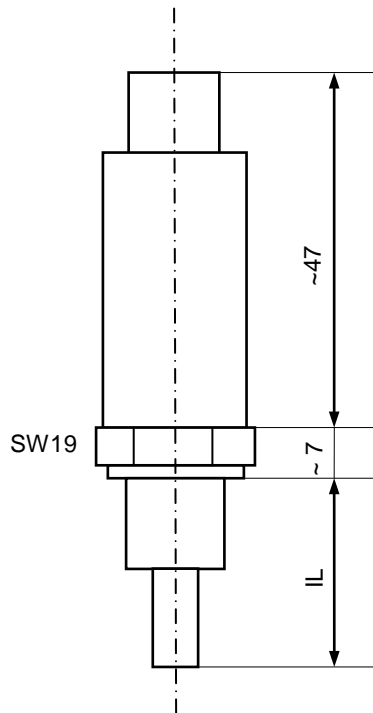
**Model: TEP21**

## Technical data

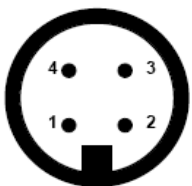
	PT Compact OEM
Model	TEP21
Sensor	PT100 class B in 2-wire connection, option PT100 Class A or other types of PT100
Output signal and supply voltage	4-20 mA, 2-wire Supply voltage: 10 – 36 VDC Ripple < 10%
Error Signal	Sensor burnout: 23 mA Sensor short circuit: 3,3 mA
Measuring ranges	-20°C ... +40°C 0°C ... +60°C 0°C ... +120°C  Other measuring ranges on request (minimum order quantity for special measuring ranges 500 pieces)
Process connections	Fixed thread G ¼ A or ¼"NPT
Material	Protection tube and housing: Stainless steel 1.4571 (316 Ti) Option: Protection tube made of nickel plated brass
Protection tube	Ø6 x 0.75 mm insertion length (IL) 25 mm or 50 mm, solid drilled
Pressure range <sup>1)</sup>	Maximum 600 bar (Stainless steel thermowell)
Accuracy	1.5% of measuring range + PT100
Ambient temperature	Maximum 85°C (185°F)
Storage temperature	-40°C bis +85°C (-40°F .. 185°F)
Electrical connection	Round connector , M12x1; 4 pin
EMC-resistance	Emitted interference and immunity acc. DIN EN 61326
Ingress protection	IP67 acc. DIN EN 60529 / IEC 529

- <sup>1)</sup> Pressure ranges refer to static pressure; Rating depends on:
- process medium
  - process pressure and temperature
  - flow rate
  - Stem design (length, diameter, wall thickness)

## Dimensions in mm



## Wiring Diagram M12x1



4..20 mA: 1=Ub+/S+ 3=0V/S-

Subject to technical modifications