

RESISTANCE SENSORS FOR HEAT METERS

TS 400

Sensors are designed for temperature measurement of liquid and gaseous media, **especially in central heating systems.**

Sensor is made on the basis of **Pt 100, Pt 500** or **Pt 1000** resistor, and connecting cable in silicone rubber insulation with the copper wires of dia. 2x0,25 mm².

Sensors are delivered in pairs that meet requirements of metrological regulations on heat meters for water .

Selection accuracy for pairs is limited to 66% of permissible errors acc. to the National Weights and Measures Office „GUM” instructions as well as the MID directives 2004/22/EC of the European Parliament and of the Council dated 31 March 2004.

For easy mounting, sensors are marked with red label (supply) and blue label (return), the same is with the wire ends what enables its quick assembly to the heat meter calculator.

Sensors **TS 400** are mounted without outer housing, but sensor design allows to mount it directly on valves, T-pipes and water meters. The mounting screw has a special hole to seal the sensor.



TS 400

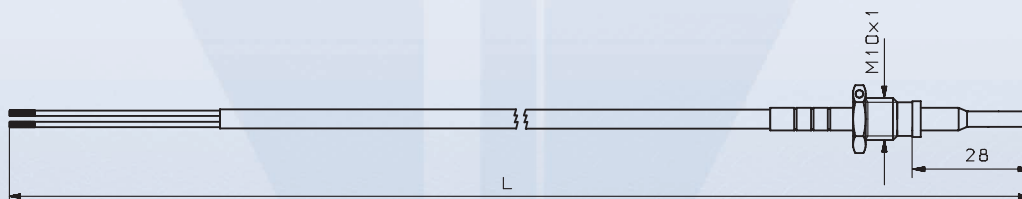
TECHNICAL DATA

- Measuring range $0^{\circ}\text{C} \leq \Theta \leq 150^{\circ}\text{C}$
- Temperature difference range $3\text{K} \leq \Delta\Theta \leq 150\text{K}$
- Sensing element Pt 100, Pt 500, Pt 1000
acc. to DIN EN 60751:1996
- Permissible working pressure 1,6 MPa
- Max. measuring current 5 mA
- Housing material Inconel
- Time constant $\tau_{0,5} \leq 3\text{s}$
- Connecting cable silicone cable 2x0,25 mm²
length: Pt 100 – L = 0,5 ÷ 3 m
Pt 500, Pt 1000 – L = 0,5 ÷ 15 m

PERMISSIBLE ERRORS OF A PAIR OF SENSORS

$$E_{Td} = \pm (0,5 + \frac{9}{\Delta\Theta})\% \cdot 0,66$$

DIMENSIONS



The paired sensors have the same manufacturing No., but a different marking that depends on a mounting place.

..XX/1 – marking for sensor on “supply” (red color)

..XX/2 – marking for sensor on “return” (blue color)

DESCRIBING AND ORDERING EXAMPLE

The paired resistance sensors **TS 400**

• Sensing element

Pt 100
Pt 500
Pt 1000

• Cable length L =

0,5 ÷ 15 m

Example:

The paired resistance sensors **TS 400 Pt 100 / 2 m**



TS 400

