

RESISTANCE SENSORS FOR HEAT METERS

TS 300

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

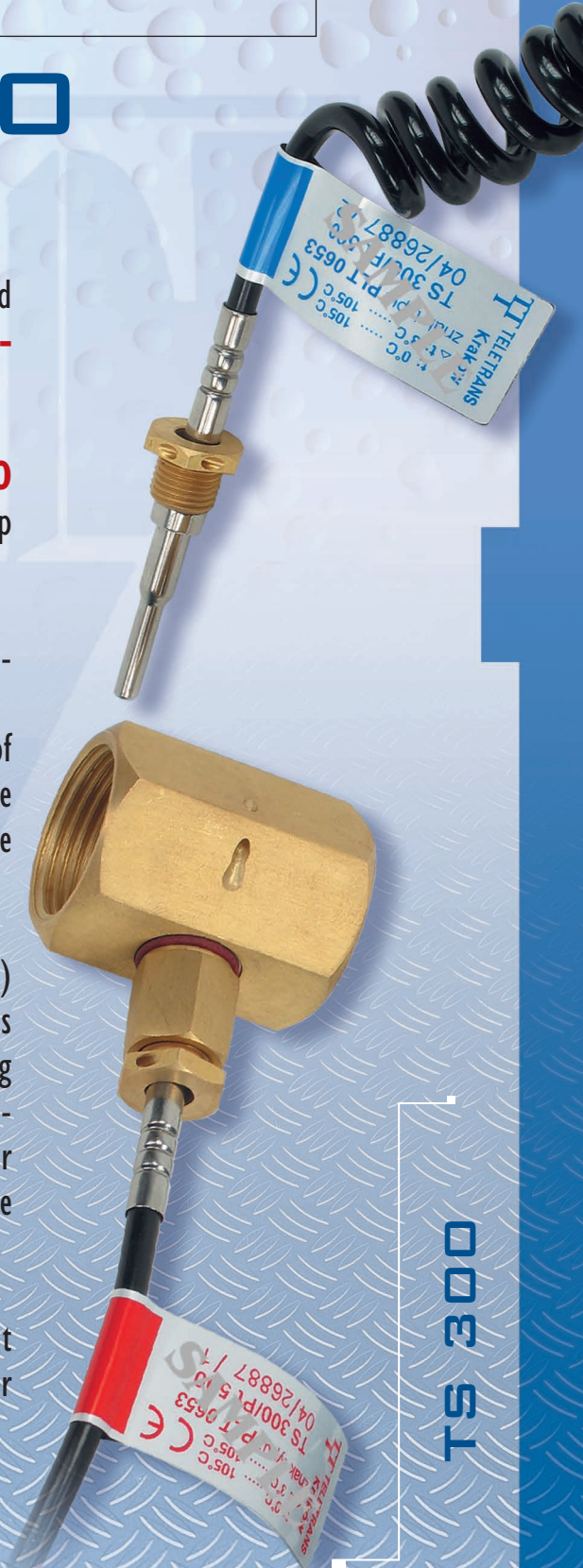
Sensor is made on the basis of **Pt 100**, **Pt 500** or **Pt 1000** resistor, and the spiral connecting cable that enables to measure up to 105°C.

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. Spiral connecting cable with the copper wires inside of dia. 0,25 mm² assures a comfortable connection of sensor to the Heat meter calculator being far from each other up to 1,3 m. Ambient temperature of spiral cable operation should not exceed 90°C.

Sensors **TS 300** are mounted without an outer housing, but sensor design allows to mount it directly on valves, T-pipes and water meters. Mounting screw has a special hole to seal the sensor.



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TS 300

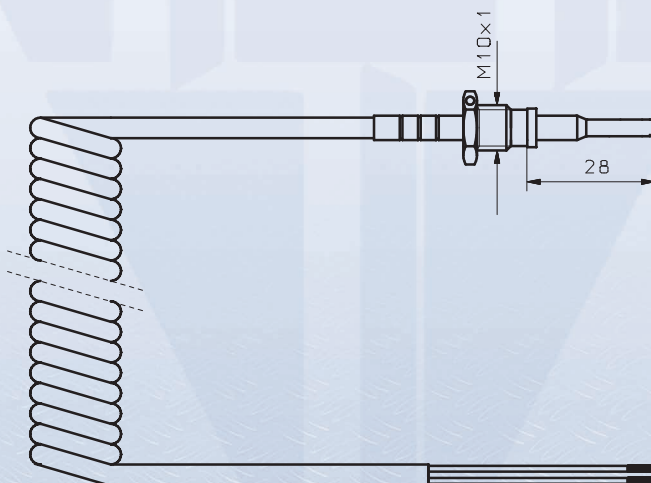
TECHNICAL DATA

• Measuring range	$0^{\circ}\text{C} \leq \Theta \leq 105^{\circ}\text{C}$
• Temperature difference range	$3\text{K} \leq \Delta\Theta \leq 105\text{K}$
• Sensing element	Pt100, Pt500, 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	PUR cable 2x 0,25 mm ²

PERMISSIBLE ERRORS OF A PAIR OF SENSORS

$$E_{Td} = \pm (0,5 + \frac{2}{\Delta\Theta})\% \cdot 0,66$$

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 300**

- Sensing element

Pt 100
Pt 500
Pt 1000

Example:

The paired resistance sensors **TS 300 Pt 100**

TS 300

