Resistance temperature sensors

simex

SCR108

- mineral insulated resistance sensor
- connection head
- short response time for temperature change
- small dimensions for operation in hard-to-reach places
- resistance to vibrations and the possibility of bending
- thermowell made of acid-resistant steel

Resistance thermometers **SCR108** are made of metal-sheathed cables with internal wires (Cu or Ni). They are insulated from each other, with the outer sheath with magnesium oxide (MgO) powder. It provides the sensor with high vibration resistance, flexibility, as well as temperature resistance, and good electrical insulation. These sensors are designed for direct temperature measuring in places with difficult access. There are also used in every application, where it is required to use flexible and small diameter probe, with high resistance to shock, vibration, and short response time to temperature changes. Due to tight pressing of the insulating layer (MgO) and the appropriate structure of the inner wires and the sheath, the sensors can be bent with a minimal the radius of curvature of three times the outer diameter of the sheath.

Application areas:
- general machinery and equipment design,
- measuring temperature of liquids, gases and solid bodies,
- all branches of industry,
- measurement laboratories.

TECHNICAL DATA

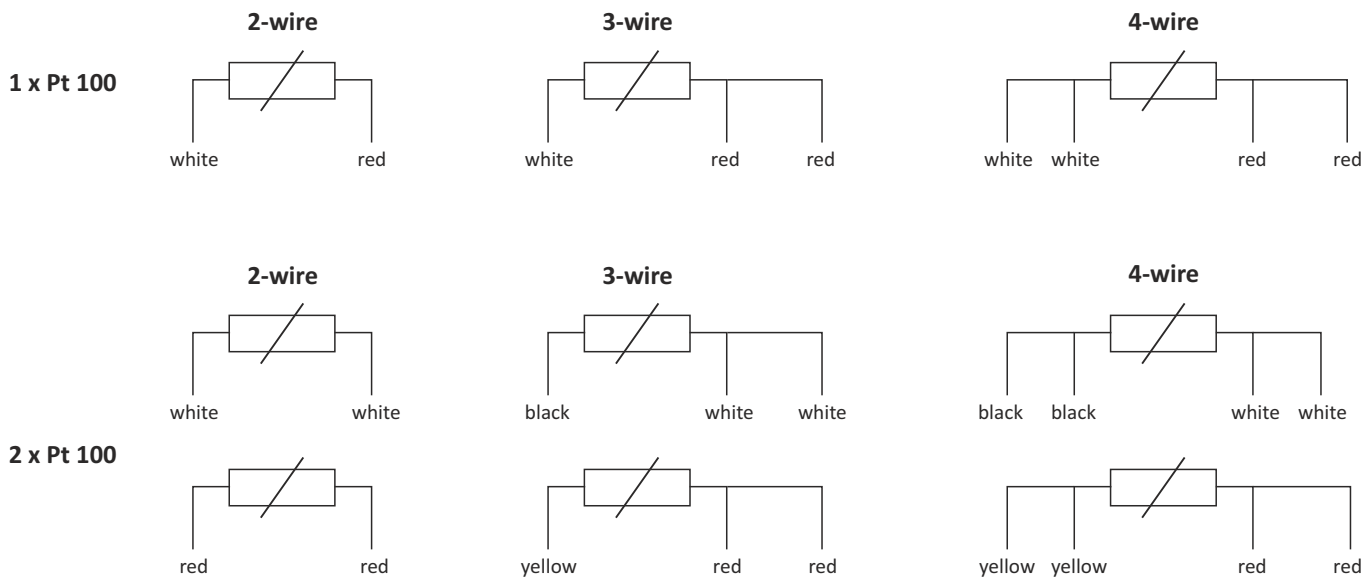|	
Sensing element	Pt100, Pt500, Pt1000, Ni100 (2-, 3- or 4-wire)
Measuring range	-50 ÷ 550°C
Connection head	B, NA, MA, DAN or other, operating temperature -40 ÷ 150°C
Class	A or B
Thermowell	material: stainless steel 1.4541 or other any nominal length (specified when ordering) diameter: 1,5 ÷ 8 mm

CONNECTION HEAD TYPES

B type   NA type   DANW type   DAN type
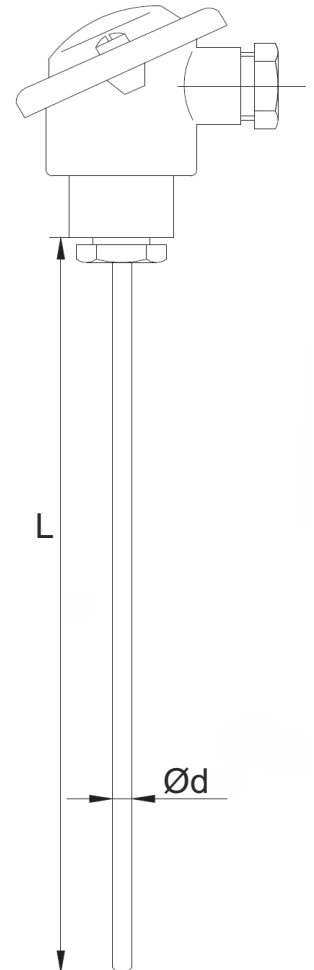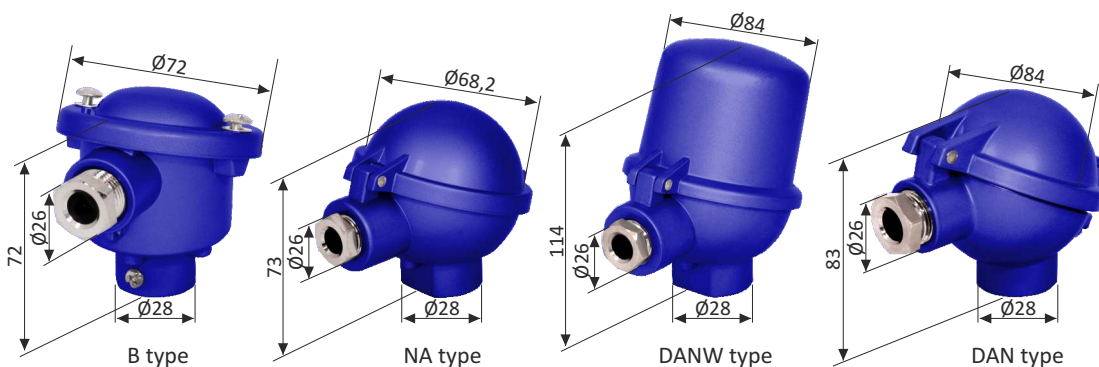
RESISTOR TOLERANCE ACC. TO PN-EN 60751

Class	Tolerance [°C]
A	t = 0,15 + 0,002 x |t|
B	t = 0,30 + 0,005 x |t|

ELECTRICAL CONNECTION

1 x Pt 100

2-wire	3-wire	4-wire
white — red	white — red — red	white — white — red — red

2 x Pt 100

2-wire	3-wire	4-wire
white — white	black — white — white	black — black — white — white
red — red	yellow — red — red	yellow — yellow — red — red

ORDERING

SCR108-X-X-X-X-X-X-X

temperature sensor:
1 : single
2 : double
PP : with transmitter

sensing element:
Pt 100
Pt 500
Pt 1000
other, please specify

thermowell diameter (d):
3 : 3 mm
6 : 6 mm
other, please specify

thermowell length (L):
please specify [mm]

measuring circuit:
2 : 2-wire
3 : 3-wire
4 : 4-wire

accuracy class:
A
B

connection head:
MA
NA
DAN
B
other, please specify
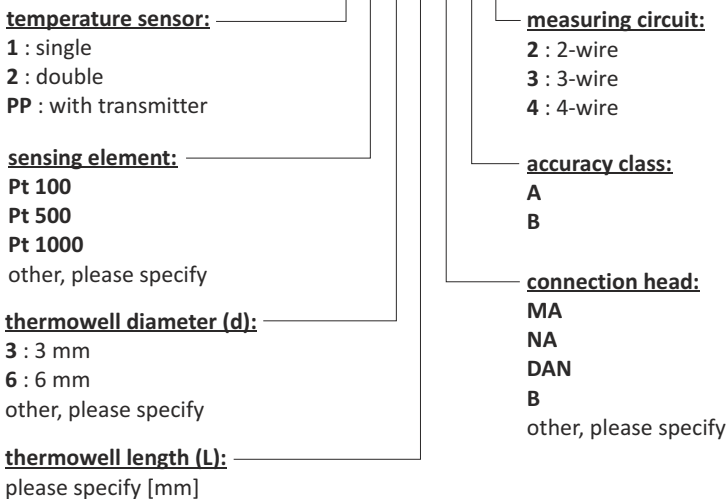
Ordering example:
SCR108-1-Pt100-3-500-B-B-2
Mineral insulated RTD temperature sensor, 1xPt100, sheath diameter 3.0 mm, B tolerance class,
2-wire measuring circuit, length L=500 mm, connection head B type

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SCR108.2