



## SCT100-Exi

- temperature range  $-40 \div 1150^{\circ}\text{C}$
- operating temperature of connection heads max.  $150^{\circ}\text{C}$
- stainless steel sheath
- optional: sensor with a replaceable measuring insert
- possibility of mounting a 4...20mA temperature transmitter

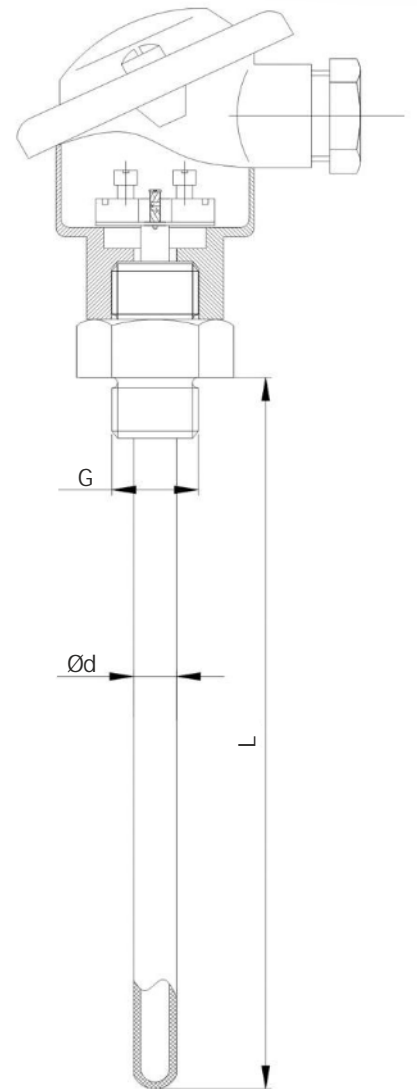
The thermocouple SCT100-Exi consists of an optional exchangeable measuring insert, outer protective tube (thermowell), and aluminum connection. Mounting a temperature transmitter with 4...20mA output signal is possible. The measuring insert represents the replaceable element of the complete sensor, which reduces the time and costs of maintenance of the measuring apparatus installed in the object.

### Application areas:

- machine construction, tanks or containers,
- fine chemical industry,
- light energy industry,
- general industrial services.

### TECHNICAL DATA

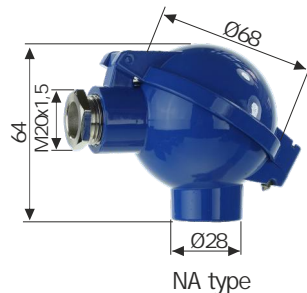
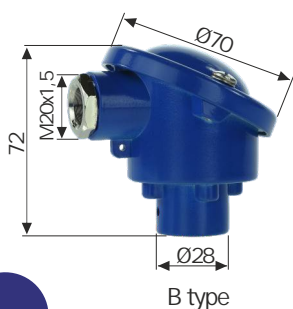
Sensing element	J, K, N, R, S, B, E, T thermocouple (single, double)
Measuring range	depending on thermocouple and material: $-40 \div 450^{\circ}\text{C}$ (with non-replaceable insert), $-40 \div 1150^{\circ}\text{C}$ (with replaceable insert)
Connection head	B, NA or other, operating temperature $-40 \div 150^{\circ}\text{C}$
Class	1 or 2
Sheath	material: stainless steel 1.4541 or other nominal length: 100 mm or other (specified when ordering) diameter: 6, 8, 9, 10, 11, 12, 15, 16 mm
Process connection	G1/2", M20x1,5 or other
ATEX approval	II 1G Ex ia IIC T6-T1 Ga; II 1D Ex ia IIIC T85°C-450°C Da



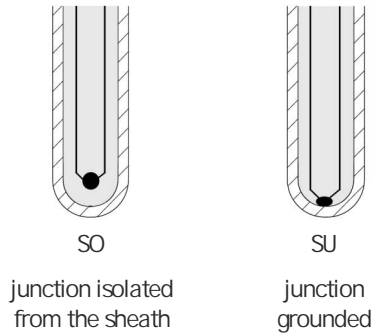
### THERMOCOUPLES TOLERANCE ACC. TO PN-EN 60584

Thermocouple	Class 1		Class 2	
	Temperature range	Tolerance	Temperature range	Tolerance
J (Fe-CuNi)	$-40 \div 750^{\circ}\text{C}$	$\pm 1,5^{\circ}\text{C}$	$-40 \div 750^{\circ}\text{C}$	$\pm 2,5^{\circ}\text{C}$
K (NiCr-Ni)	$-40 \div 1000^{\circ}\text{C}$	$\pm 0,0040^{\circ}\text{C} \times  t $	$-40 \div 1200^{\circ}\text{C}$	$\pm 0,0075^{\circ}\text{C} \times  t $
N (NiCr-Si-NiSi)	$-40 \div 1000^{\circ}\text{C}$		$-40 \div 1200^{\circ}\text{C}$	
B (PtRh30-PtRh6)	-	-	$600 \div 1700^{\circ}\text{C}$	$\pm 0,0025^{\circ}\text{C} \times  t $
R (PtRh13-Pt)	$0 \div 1100^{\circ}\text{C}$	$\pm 1,0^{\circ}\text{C}$	$0 \div 600^{\circ}\text{C}$	$\pm 1,5^{\circ}\text{C}$
S (PtRh10-Pt)	$1100 \div 1600^{\circ}\text{C}$	$\pm [1+0,003(t-1100)]^{\circ}\text{C}$	$600 \div 1600^{\circ}\text{C}$	$\pm 0,0025^{\circ}\text{C} \times  t $

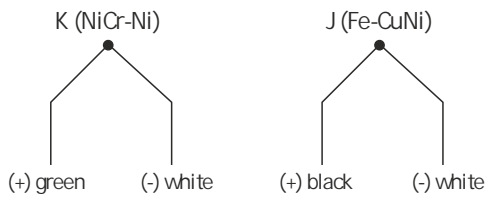
### CONNECTION HEAD TYPES



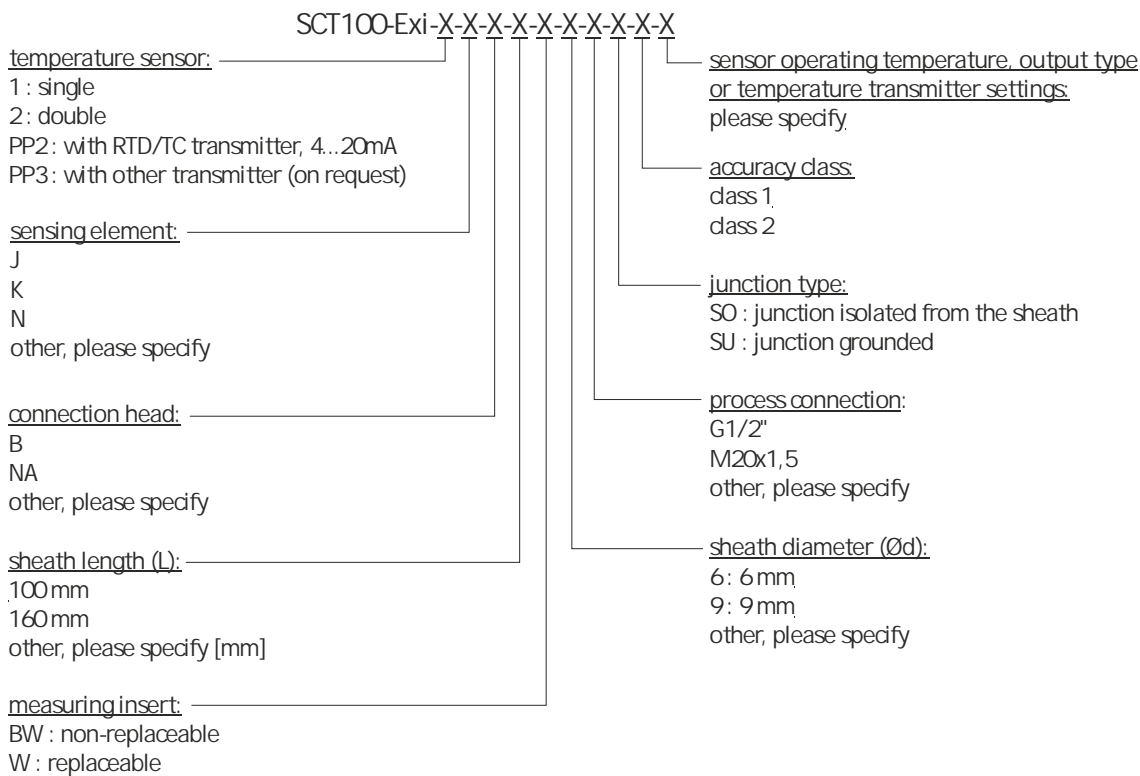
TYPES OF MEASURING HOT JUNCTION



ELECTRICAL CONNECTION



ORDERING



Ordering example:

SCT100-Exi-1-J-B-100-W-9-M20x1,5-SO-1-250

Single TC intrinsically safe temperature sensor, J thermocouple, 1 tolerance class, measuring insert replaceable, B head type, process connection M20x1,5, sheath diameter 9 mm and length 100 mm, hot junction isolated from the sheath, max. operating temperature 250°C.

