



## SCT120-Exi

- temperature range  $-40 \div 1100^{\circ}\text{C}$
- operating temperature of connection heads max.  $150^{\circ}\text{C}$
- for mounting in additional protection tube
- stainless steel AISI316 (1.4401) insert cover
- spring-loaded insert ensures an excellent connection with the thermowell
- possibility of mounting a 4...20mA temperature transmitter

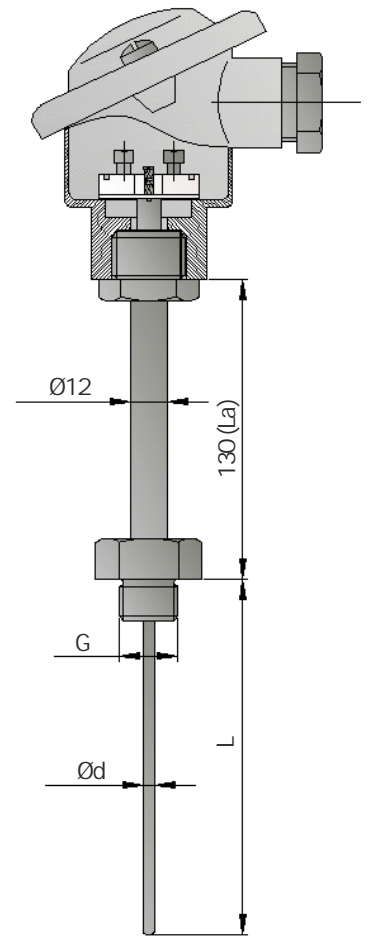
The thermocouple SCT120-Exi is used for temperature measurement of liquid and gaseous media. The temperature sensor design (replaceable measuring insert) is suitable for various industrial applications. Replacement of the measuring insert does not cause the technological installation damage. Spring-loaded insert ensures an excellent connection with the bottom of the sensor thermowell.

### Application areas

- installations of technological processes in all industries,
- mechanical engineering,
- heating, air conditioning and ventilation installations.

### TECHNICAL DATA

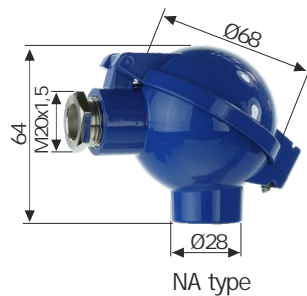
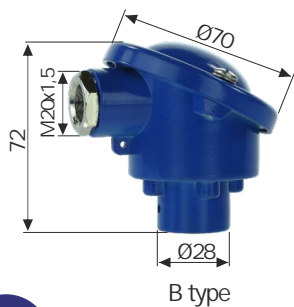
Sensing element	J, K, N, R, S, B, E, T thermocouple (single, double)
Measuring range	depending on thermocouple and material: $-40 \div 1100^{\circ}\text{C}$
Connection head	B, NA or other, operating temperature $-40 \div 150^{\circ}\text{C}$
Class	1 or 2
Insert	mineral insulated or tube sheath material: stainless steel AISI316 (1.4401) any nominal length (specified when ordering) diameter: 8, 9, 10, 11, 12, 15 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



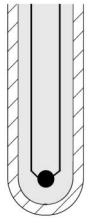
### THERMOCOUPLES TOLERANCE ACC. TO PN-EN 60584

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

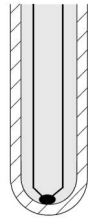


TYPES OF MEASURING HOT JUNCTION



SO

junction isolated from the sheath

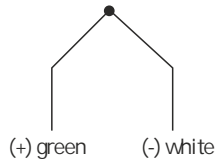


SU

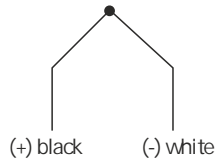
junction grounded

ELECTRICAL CONNECTION

K (NiCr-Ni)



J (Fe-CuNi)



ORDERING

SCT120-Exi-X-X-X-X-X-X-X-X-X-X

temperature sensor:

- 1 : single
- 2: double
- PP2: with RTD/TC transmitter, 4...20mA
- PP3: with other transmitter (on request)

sensing element:

- J
- K
- N
- other, please specify

connection head:

- B
- NA
- other, please specify

transitional sheath length (La):

- S: 130 mm (standard)
- other, please specify

insert diameter (Ød):

- 8 mm
- 10 mm
- other, please specify

sensor operating temperature, output type or temperature transmitter settings:  
please specify.

accuracy class:  
class 1,  
class 2

junction type:  
SO : junction isolated from the sheath  
SU : junction grounded

process connection:  
M20x1,5  
G1/2"  
other, please specify

insert construction:  
P : mineral insulated  
Z : normal

proper sheath length (L):  
100 mm  
200 mm  
other, please specify [mm]

Ordering example:

SCT120-Exi-1-K-B-S-8-100-P-M20x1,5-SO-2-600

Single TC intrinsically safe temperature sensor, K thermocouple, 2 tolerance class, with mineral insulated measuring insert diameter 8 mm, length 100 mm, B head type, hot junction isolated from the sheath. Sensor with process connection M20x1,5 and max. operating temperature 600°C.

