

SCT122-Exi



- temperature range $-40 \div 1100^{\circ}\text{C}$
- operating temperature of connection heads max. 150°C
- stainless steel stepped sheath
- optional: sensor with a replaceable measuring insert
- possibility of mounting a 4...20mA temperature transmitter

The thermocouple SCT122-Exi is intended for measuring the temperature of pipelines, tanks, machines and devices in various industrial installations. The sensor consists of an aluminum connection head and a stepped sheath of a selected diameter, which results in increased measurement dynamics. Replacement of the measuring insert does not cause the technological installation damage.

Application areas

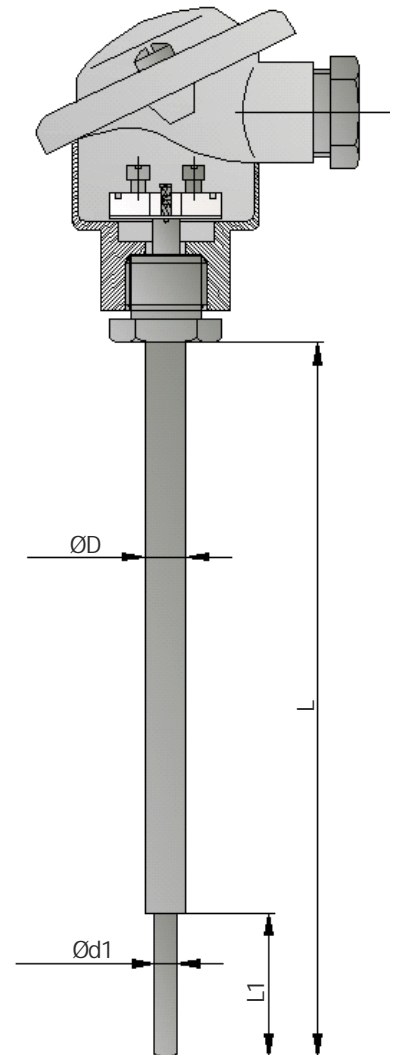
- industrial and technological installations in various industries,
- temperature measurement of pipelines, tanks, boilers,
- measurement of all media (gases, liquids, solids).

TECHNICAL DATA

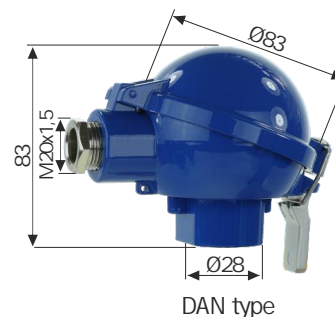
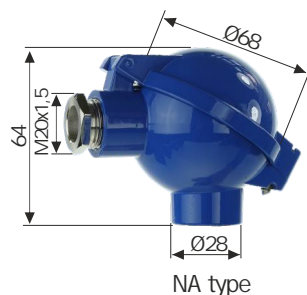
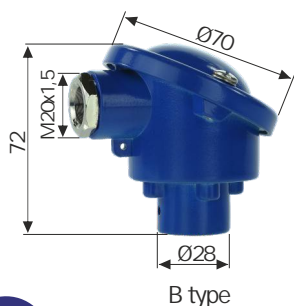
Sensing element	J, K, N, R, S, B, E, T thermocouple (single, double)
Measuring range	depending on thermocouple and material: $-40 \div 450^{\circ}\text{C}$ (with non-replaceable insert), $-40 \div 1100^{\circ}\text{C}$ (with replaceable insert)
Connection head	B, NA or other, operating temperature $-40 \div 150^{\circ}\text{C}$
Class	1 or 2
Sheath	material: stainless steel 1.4571 nominal length: 100 mm (or other, specified when ordering) diameter d1: 3, 4, 4.5, 5, 6, 7, 8, 9, 10, 11, 12, 15 mm (with non-replaceable insert); 8, 9, 10, 11, 12, 15 mm (with replaceable insert)
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

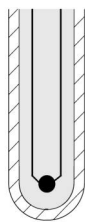
Thermocouple	Class 1		Class 2	
	Temperature range	Tolerance	Temperature range	Tolerance
J (Fe-CuNi)	$-40 \div 750^{\circ}\text{C}$	$\pm 1,5^{\circ}\text{C}$	$-40 \div 750^{\circ}\text{C}$	$\pm 2,5^{\circ}\text{C}$
K (NiCr-Ni)	$-40 \div 1000^{\circ}\text{C}$	$\pm 0,0040^{\circ}\text{C} \times t $	$-40 \div 1200^{\circ}\text{C}$	$\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

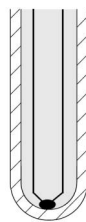


TYPES OF MEASURING HOT JUNCTION



SO

junction isolated from the sheath

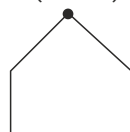


SU

junction grounded

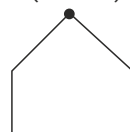
ELECTRICAL CONNECTION

K (NiCr-Ni)



(+) green (-) white

J (Fe-CuNi)



(+) black (-) white

ORDERING

SCT122-Exi-X-X-X-X-X-X-X-X-X

<p><u>temperature sensor:</u></p> <p>1 : single 2 : double PP2 : with RTD/TC transmitter, 4...20mA PP3 : with other transmitter (on request)</p> <p><u>sensing element:</u></p> <p>J K N other, please specify</p> <p><u>connection head:</u></p> <p>B NA other, please specify</p> <p><u>total length of sheath (L):</u></p> <p>100 : 100 mm 200 : 200 mm other, please specify</p> <p><u>length of stepped sheath (L1):</u></p> <p>20 : 20 mm 30 : 30 mm other, please specify</p>	<p>— sensor operating temperature, output type or temperature transmitter settings please specify.</p> <p>— accuracy class: class 1 class 2</p> <p>— junction type: SO : junction isolated from the sheath SU : junction grounded</p> <p>— construction: BW : without replaceable measuring insert W : with a replaceable measuring insert</p> <p>— sheath diameter (ØD/Ød1): 10/8 : Ø 10/8 mm 12/10 : Ø 12/10 mm other, please specify</p>
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Ordering example:

SCT122-Exi-1-N-NA-100-20-10/8-BW-SO-2-400

Single TC intrinsically safe temperature sensor, K thermocouple, 2 tolerance class, without replaceable measuring insert, hot junction isolated from the sheath, NA head type, pressure sheath diameter 8 mm, length 100 mm, stepped part with a length of 20 mm and a diameter of 6 mm, max. operating temperature 400°C.

