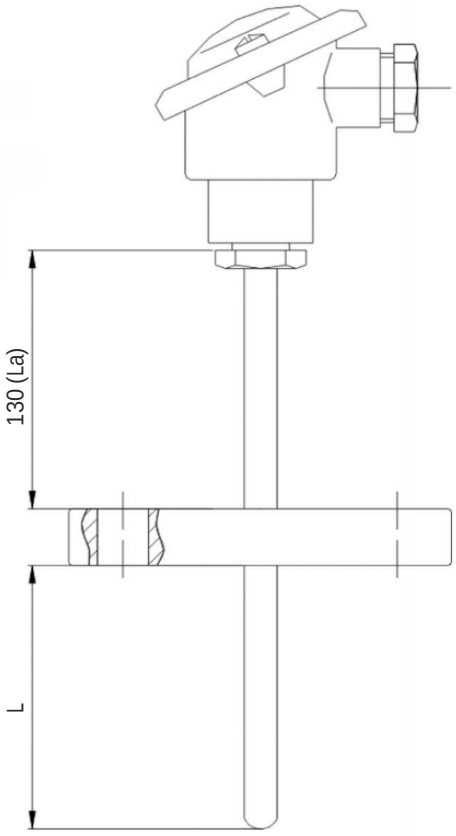
SCT102-Exi

- temperature range -40 ÷ 1100°C
- operating temperature of connection heads max. 150°C
- stainless steel sheath
- mounting flange
- possibility of mounting a 4...20 mA temperature transmitter

The thermocouple SCT102-Exi consists of an exchangeable measuring insert, outer protective tube (thermowell) with neck and aluminum connection head. Mounting a temperature transmitter with 4...20 mA 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. Spring fixation of the measuring insert provides perfect pressure to the bottom of the protecting tube, reduces the time of reaction to changes of temperature and increases the accuracy of measurement as well as reduces natural vibration thus mechanical, and electrical defects can be avoided.

Application areas:
- fine chemical industry,
- light energy industry,
- general industrial services.



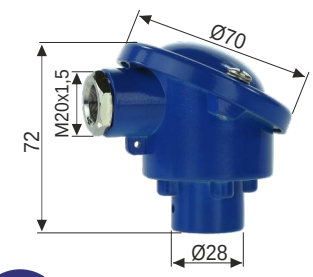
TECHNICAL DATA

Sensing element	J, K, N, R, S, B, E, T thermocouple (single, double)
Measuring range	depending on thermocouple and material: -40 ÷ 1100°C
Connection head	B, NA or other, operating temperature -40 ÷ 150°C
Class	1 or 2
Sheath	material: stainless steel 1.4541 or other length (La): 130 mm (standard) diameter: 8, 9, 10, 11, 12, 15 mm flange: DN20, DN25 or other
ATEX approval	II 1G Ex ia IIC T6-T1 Ga; II 1D Ex ia IIIC T85°C÷450°C Da

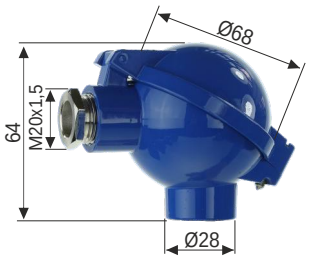
THERMOCOUPLES TOLERANCE ACC. TO PN-EN 60584

Thermocouple	Class 1		Class 2	
	Temperature range	Tolerance	Temperature range	Tolerance
J (Fe-CuNi) K (NiCr-Ni) N (NiCrSi-NiSi)	-40 ÷ 750°C -40 ÷ 1000°C -40 ÷ 1000°C	± 1,5°C ± 0,0040°C x |t|	-40 ÷ 750°C -40 ÷ 1200°C -40 ÷ 1200°C	± 2,5°C ± 0,0075°C x |t|
B (PtRh30-PtRh6)	-	-	600 ÷ 1700°C	± 0.0025°C x |t|
R (PtRh13-Pt) S (PtRh10-Pt)	0 ÷ 1100°C 1100 ÷ 1600°C	± 1.0°C ± [1+0.003(t-1100)]°C	0 ÷ 600°C 600 ÷ 1600°C	± 1.5°C ± 0.0025°C x |t|

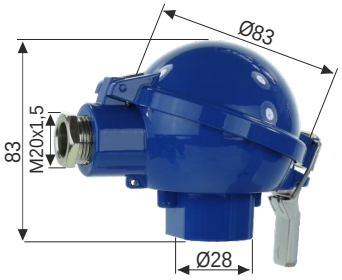
CONNECTION HEAD TYPES



B type

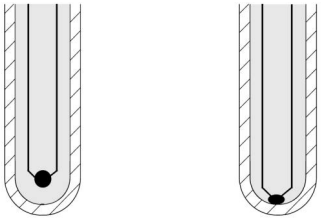


NA type



DAN type

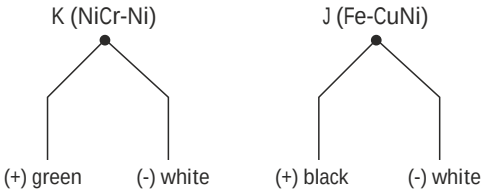
TYPES OF MEASURING HOT JUNCTION



SO
junction isolated from the sheath

SU
junction grounded

ELECTRICAL CONNECTION



ORDERING

SCT102-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

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

transitional sheath length (La):
S : 130 mm (standard)
other, please specify

sheath diameter (Ød):
8 mm
9 mm
12 mm
other, please specify

flange:
DN20 (PN100)
DN25 (PN100)
other, please specify

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

accuracy class:
class 1
class 2

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

Ordering example:
SCT102-Exi-1-K-NA-100-S-9-DN20(PN100)-SU-2-450
Single TC intrinsically safe temperature sensor, K thermocouple, 2 tolerance class, with NA head type and DN20 PN100 mounting flange, sheath diameter 9 mm and length 100 mm, hot junction grounded, max. operating temperature 450°C.