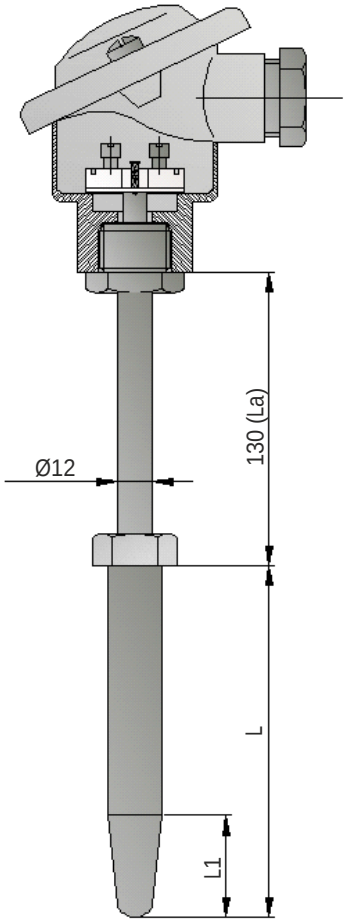
SCT121-Exi

- temperature range -40 ÷ 1100°C
- operating temperature of connection heads max. 150°C
- stainless steel sheath
- drilled pressure sheath
- sensor with a replaceable measuring insert
- possibility of mounting a 4...20 mA temperature transmitter

The thermocouple SCT121-Exi consists of an exchangeable measuring insert, outer protective tube (thermowell), drilled pressure sheath, and aluminum connection head. Intended for measuring the temperature of pipelines, tanks, boilers in difficult conditions. 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 of temperature changes, and increases the accuracy. It also reduces natural vibration. Thus, mechanical and electrical defects can be avoided.

Application areas:

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



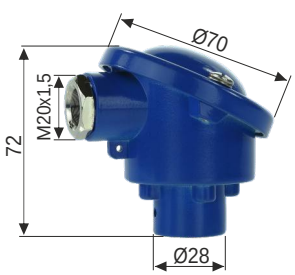
TECHNICAL DATA

Sensing element	J, K, N, R, S, B, E, T thermocouple (single, double)
Measuring range	depending on thermocouple and material: -40 ÷ 1100°C
Connection head	B, NA or other, operating temperature -40 ÷ 150°C
Class	1 or 2
Pressure sheath	material: heat-resistant steel H25N2OS2 (1.4841 / AISI314) or other any nominal length (specified when ordering) diameter: 18, 24 or 26 mm
ATEX approval	II 1G Ex ia IIC T6-T1 Ga; II 1D Ex ia IIIC T85°C÷450°C Da

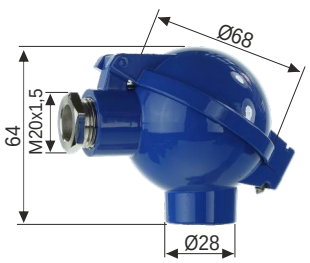
THERMOCOUPLES TOLERANCE ACC. TO PN-EN 60584

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|

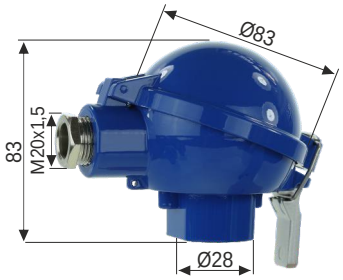
CONNECTION HEAD TYPES



B type

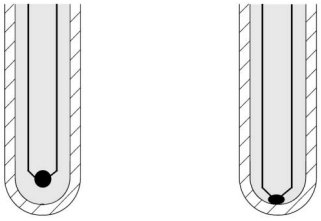


NA type



DAN type

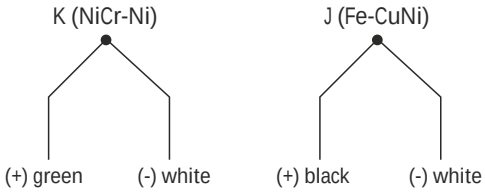
TYPES OF MEASURING HOT JUNCTION



SO
junction isolated from the sheath

SU
junction grounded

ELECTRICAL CONNECTION



ORDERING

SCT121-Exi-X-X-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

pressure sheath diameter (Ød):
18 : 18H7
24 : 24H7
26 : 26H7

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

length of the sheath cone (L1):
50 : 50 mm
85 : 85 mm
other, please specify

sheath material:
1.7335 : 1.7335/A182 F11
1.7380 : 1.7380/A182 F22
1.4903 : 1.4903/A182 F91
1.4541 : 1.4541/SS321

insert diameter:
8 mm
9 mm
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:
SCT121-Exi-1-K-B-S-18-140-30-1.4541-8-SO-2-900
Single TC intrinsically safe temperature sensor, K thermocouple, 2 tolerance class, with replaceable measuring insert diameter 8 mm, B head type, pressure sheath diameter 18 mm, length 140 mm, sheath from stainless steel 1.4541, sheath cone 30 mm, hot junction isolated from the sheath, max. operating temperature 900°C.