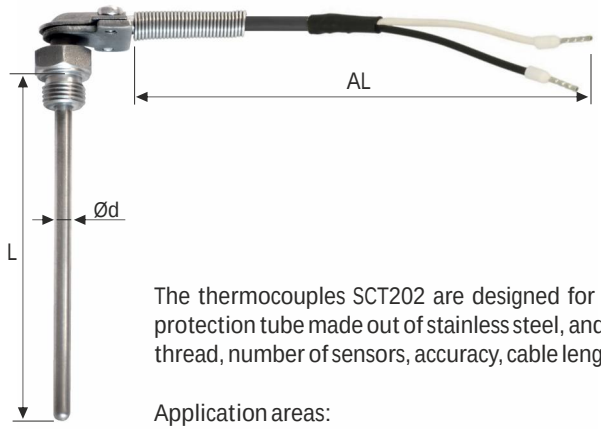
SCT202



- temperature range -40 ÷ 400°C (depending on the cable used)
- mounting by threaded process connection
- stainless steel sheath
- minimum sheath length: 15 mm, minimum sheath diameter: 3 mm
- thermowell spring protection against excessive cable bending

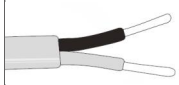
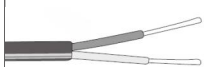
The thermocouples SCT202 are designed for fitting directly into a drilled hole or process. Consist of a thermocouple element, a protection tube made out of stainless steel, and a connection cable. Sensor insertion length, thermowell diameter, process connection thread, number of sensors, accuracy, cable length, and insulation can be selected individually for the respective application.

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

TECHNICAL DATA

Sensing element	J, K, N, R, S, B thermocouple or other (single, double)
Measuring range	-40 ÷ 400°C (depending on the cable used)
Class	1 or 2
Sheath	material: stainless steel nominal length (min. 15 mm): 50 mm (standard), 100 mm or other diameter (min. 3 mm): 4 mm, 5 mm, 6 mm or other
Cable	type according to the table, standard length 1500 mm or other according to order
Process connection	G1/2; M10x1; M14x1,5 or other according to order

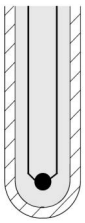
CONNECTION CABLES

Diagram	Insulation design	Temperature range	Code
	Double fibreglass - stainless steel	-40 ÷ 400°C	WS
	PVC	-10°C ÷ 105°C	PVC
	Teflon - stainless steel - teflon	260°C max.	TOT
	Teflon - stainless steel	260°C max.	TO
	Silicon - stainless steel - silicon	180°C max.	SOS
	Silicon - silicon	-30°C ÷ 250°C	SS
	Teflon - teflon	-40°C ÷ 260°C	TT

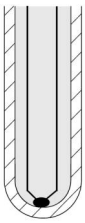
THERMOCOUPLES TOLERANCE ACC. TO PN-EN 60584

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|

TYPES OF MEASURING HOT JUNCTION

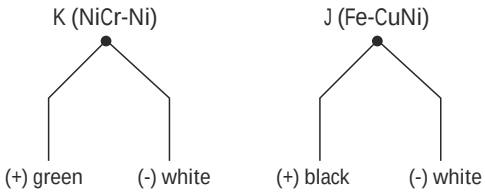


SO
junction isolated
from the sheath



SU
junction
grounded

ELECTRICAL CONNECTION



ORDERING

SCT202-X-X-X-X-X-X-X-X-X

temperature sensor:
1 : single
2 : double

sensing element:
J
K
N
other, please specify

sheath diameter (Ød):
4 mm
5 mm
other, please specify

sheath length (L):
50 mm (standard)
100 mm
other, please specify [mm]

process connection:
G1/2"
M10x1
M14x1,5
other, please specify

accuracy class:
class 1
class 2

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

connecting cable length (AL):
1500 : 1,5 linear meter
other, please specify [mm]

insulation types of connection cable:
PVC : PVC / PVC (105°C max.)
TT : teflon / teflon (260°C max.)
SS : silicon / silicon (250°C max.)
WS : double fibreglass /
stainless steel (400°C max.)

Ordering example:
SCT202-1-K-4-100-M14x1,5-WS-1500-SO-2
Single TC temperature sensor, K thermocouple, 2 tolerance class, thermowell diameter 4 mm and length 100 mm, double fibreglass insulation, process connection M14x1,5 mm, cable length 1500 mm, hot junction isolated from the sheath.