

## SCT200



- temperature range  $-40 \div 400^{\circ}\text{C}$  (depending on the cable used)
- stainless steel sheath
- minimum sheath length: 15 mm
- any maximum sheath length
- thermowell spring protection against excessive cable bending

The thermocouples **SCT200** 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.

### 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	$-40 \div 400^{\circ}\text{C}$ (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: 4 mm, 5 mm, 6 mm or other
Cable	type according to the table, standard length 1500 mm or other according to order

### CONNECTION CABLES

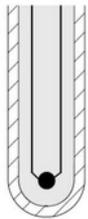
Diagram	Insulation design	Temperature range	Code
	Double fiberglass - stainless steel	$-40 \div 400^{\circ}\text{C}$	WS
	PVC	$-10^{\circ}\text{C} \div 105^{\circ}\text{C}$	PVC
	Teflon - stainless steel - teflon	$260^{\circ}\text{C max.}$	TOT
	Teflon - stainless steel	$260^{\circ}\text{C max.}$	TO
	Silicon - stainless steel - silicon	$180^{\circ}\text{C max.}$	SOS
	Silicon - silicon	$-30^{\circ}\text{C} \div 250^{\circ}\text{C}$	SS
	Teflon - teflon	$-40^{\circ}\text{C} \div 260^{\circ}\text{C}$	TT



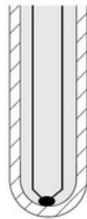
**THERMOCOUPLES TOLERANCE ACC. TO PN-EN 60584**

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

**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**

**SCT200-X-X-X-X-X-X-X-X**

<b>temperature sensor:</b>	_____	<b>accuracy class:</b>	_____
1 : single		class 1	
2 : double		class 2	
<b>sensing element:</b>	_____	<b>junction type:</b>	_____
J		<b>SO</b> : junction isolated from the sheath	
K		<b>SU</b> : junction grounded	
N			
other, please specify			
<b>sheath diameter (∅d):</b>	_____	<b>connecting cable length (AL):</b>	_____
4 mm		<b>1500</b> : 1,5 linear meter	
5 mm		other, please specify [mm]	
6 mm			
other, please specify		<b>insulation types of connection cable:</b>	_____
<b>sheath length (L):</b>	_____	<b>PVC</b> : PVC / PVC (105°C max.)	
50 mm (standard)		<b>TT</b> : teflon / teflon (260°C max.)	
100 mm		<b>SS</b> : silicon / silicon (250°C max.)	
other, please specify [mm]		<b>WS</b> : double fibreglass / stainless steel (400°C max.)	

Ordering example:

**SCT200-1-J-6-50-WS-1500-SO-2**

Single TC temperature sensor, J thermocouple, 2 tolerance class, thermowell diameter 6 mm and length 50 mm, double fibreglass insulation, cable length 1500 mm, hot junction isolated from the sheath.

