

SCT105-Exi



- temperature range $-40 \div 200^{\circ}\text{C}$
- MA type connection head
- operating temperature of connection heads max. 100°C
- stainless steel sheath
- outer thermowell with process connection

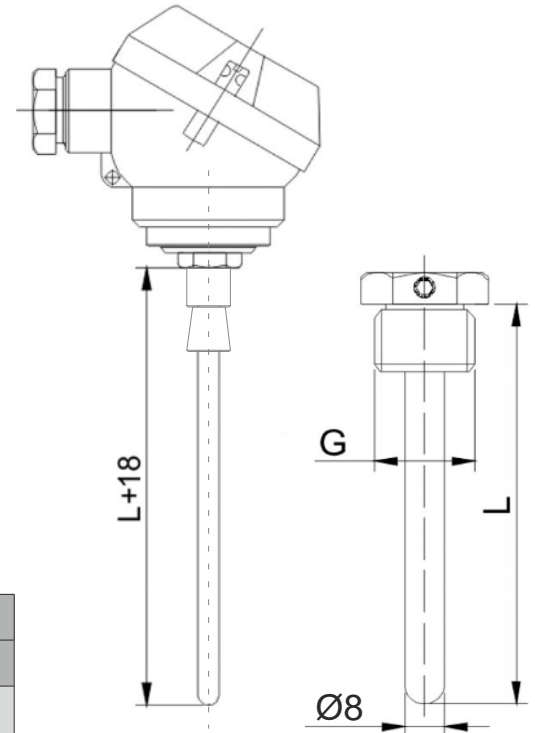
The thermocouple SCT105-Exi consists of a non-exchangeable measuring insert, outer protective tube with threaded process connection (thermowell), and aluminum connection head. Miniature connection head MA type reduces the size of complete sensor construction to make possible installation in confined areas.

Application areas

- fine chemical industry,
- light energy industry,
- general industrial services

TECHNICAL DATA

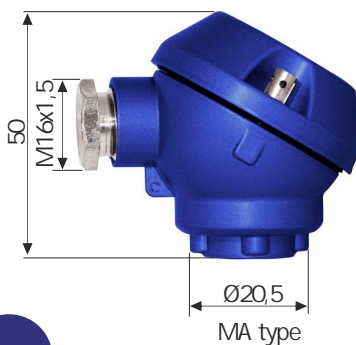
Sensing element	J, K, N, R, S, B, E, T thermocouple (single, double)
Measuring range	depending on thermocouple and material: $-40 \div 200^{\circ}\text{C}$
Connection head	MA type, aluminum, operating temperature $-40 \div 100^{\circ}\text{C}$
Class	1 or 2
Separate thermowell	material: stainless steel 1.4541 or other nominal length: 100 mm (standard) diameter: 8 mm
Process connection	G1/2", M20x1,5 or other
ATEX approval	II 1G Ex ia IIC T6-T1 Ga; II 1D Ex ia IIIC T85°C÷450°C Da



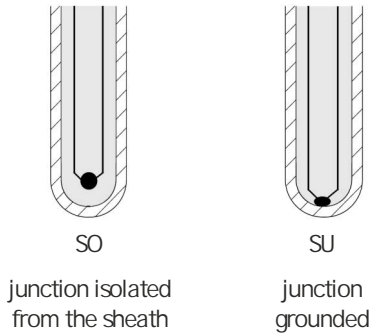
THERMOCOUPLES TOLERANCE ACC. TO PN-EN 60584

Thermocouple	Class 1		Class 2	
	Temperature range	Tolerance	Temperature range	Tolerance
J (Fe-CuNi)	$-40 \div 750^{\circ}\text{C}$	$\pm 1,5^{\circ}\text{C}$	$-40 \div 750^{\circ}\text{C}$	$\pm 2,5^{\circ}\text{C}$
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 $

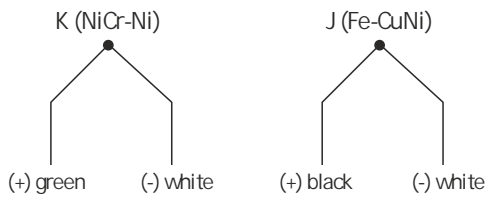
CONNECTION HEAD



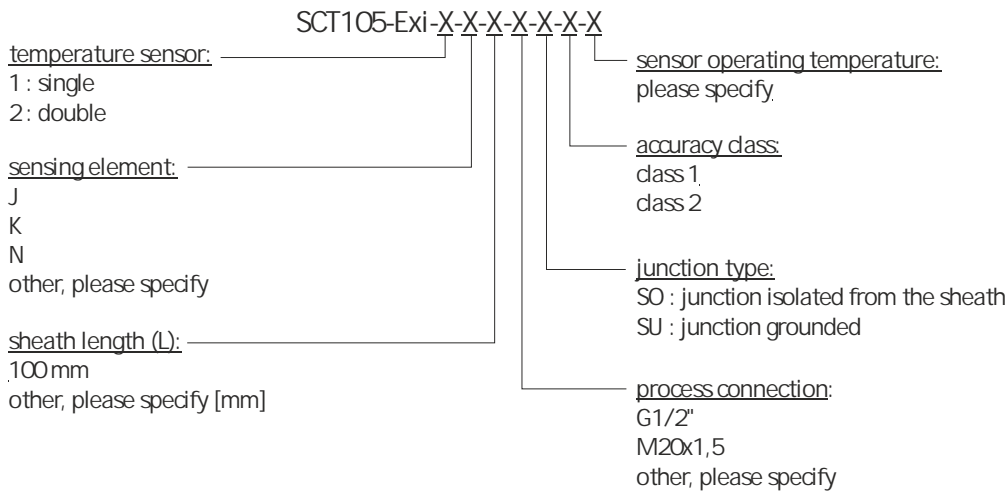
TYPES OF MEASURING HOT JUNCTION



ELECTRICAL CONNECTION



ORDERING



Ordering example:

SCT105-Exi-1-K-100-G1/2"-SO-2-100

Single TC intrinsically safe temperature sensor, K thermocouple, 2 tolerance class, process connection G1/2", sheath length 100 mm, hot junction isolated from the sheath, max. operating temperature 100°C.

