



SCT600

- thermoelectric sensor with ceramic protection tube
- temperature range max. 1800°C (depending on thermocouple used)
- operating temperature of connection heads max. 150°C
- possibility of mounting a 4...20 mA or 0...10 V temperature transmitter
- tube made of C610 (60% Al₂O₃), C799 (99,7% Al₂O₃) or C530 (75% Al₂O₃)
- mounting by threaded fittings and flanges

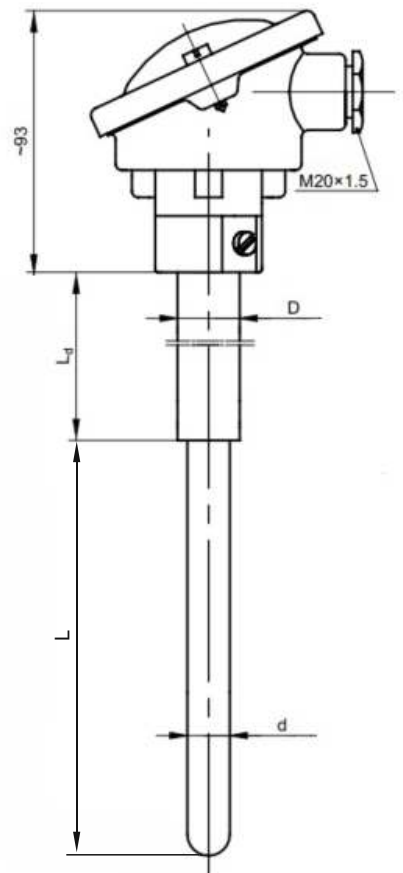
Thermocouple **SCT600** with a ceramic protection tube is designed for industrial furnaces, the glass industry, etc. The sensor consists of a replaceable insert, a ceramic protective tube (thermowell) and an aluminum connection head, where a programmable temperature transmitter with 4-20 mA output signal can be installed. Sensors with the ceramic protective tube can be mounted with a flanged mounting bracket or threaded compression fitting. Sensor immersion length, compression fitting size (optional), the material of the protection tube, and connection head can be selected depending on the requirements of the application.

Application areas:

- glass and ceramics industry,
- heat-treating furnaces,
- boiler houses,
- air and gas ducts.

TECHNICAL DATA

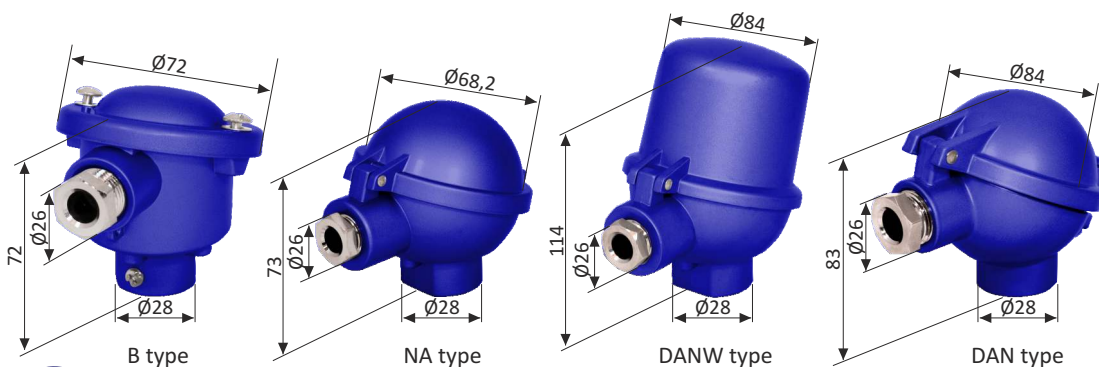
Sensing element	K, N, R, S, B thermocouple (single, double)
Measuring range	-40 ÷ 1200°C (TC K, N), 0 ÷ 1600°C (TC S, R), 600 ÷ 1700°C (TC B)
Connection head	B, NA, MA, DAN or other, operating temperature -40 ÷ 150°C
Class	1 or 2
Sheath	material: C530, C610, C799 nominal length: any (acc. to order) diameter: 10 mm, 15 mm, 24 mm or other
Process connection	flange, welding adapter



THERMOCOUPLES TOLERANCE ACC. TO PN-EN 60584

Thermocouple	Class 1		Class 2	
	Temperature range	Tolerance	Temperature range	Tolerance
K (NiCr-Ni)	-40 ÷ 1000°C	± 1.5°C	-40 ÷ 1200°C	± 2.5°C
N (NiCrSi-NiSi)	-40 ÷ 1000°C	± 0.0040°C x t	-40 ÷ 1200°C	± 0.0075°C x t
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

CONNECTION HEAD TYPES



CERAMIC PROTECTION TUBE - FEATURES

Material	Operation temperature	Advantages	Disadvantages	Application
C530 (73-75% Al ₂ O ₃)	max. 1600°C	resistant to temperature shock	low resistance to mechanical load	electric furnaces up to 1300°C or others
C610 (60% Al ₂ O ₃)	max. 1500°C	gas-tight, average thermal shock resistance, high flame resistance	low resistance to mechanical load, low Al ₂ O ₃ content	gas-tight furnaces, diffusion furnaces
C799 (99,7% Al ₂ O ₃)	max. 1800°C	gas-proof, acid resistant, steam resistant, very high flame resistance	low resistance to mechanical load, low resistance to temperature shock	gas-tight furnaces up to 1800°C (liquid glass tanks), chemical industry, manufacturing of concrete

ACCESSORIES

Mounting bracket
SUZ11



Mounting bracket
SUZ21



ORDERING

SCT600-X-X-X-X-X-X-X-X-X

temperature sensor:

- 1 : single
- 2 : double
- PP : with transmitter

sensing element:

- K
- N
- R
- other, please specify

diameter of platinum wire (for S, R, B):

- 0,35 : 0,35 mm
- 0,5 : 0,5 mm

connection head:

- NA
- B
- other, please specify

handle sheath diameter ØD:

- 22 : 22 mm
- 32 : 32 mm
- other, please specify

handle sheath length Ld:

- 150 : 150 mm (standard)
- other, please specify [mm]

accuracy class:

- class 1
- class 2

ceramic thermowell material:

- C530
- C610
- C799
- other, please specify

ceramic thermowell length L:

- 500 : 500 mm
- 1000 : 1000 mm
- other, please specify [mm]

ceramic thermowell diameter Ød:

- 10 : 10 mm
- 15 : 15 mm
- 24 : 24 mm

Ordering example:

SCT600-1-K-B-22-150-15-500-C799-2

Single TC temperature sensor, K thermocouple, 2 tolerance class, B head type, ceramic protection tube made of C799, 15 mm diameter, 500 mm length, handle sheath diameter 22 mm and length 150 mm

