

SCT601



- thermoelectric sensor with double 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..20mA or 0..10V temperature transmitter
- tube made of C610 (60% Al₂O₃), C799 (99,7% Al₂O₃) or C530 (75% Al₂O₃)
- mounting by threaded fittings and flanges

Thermocouple SCT601 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

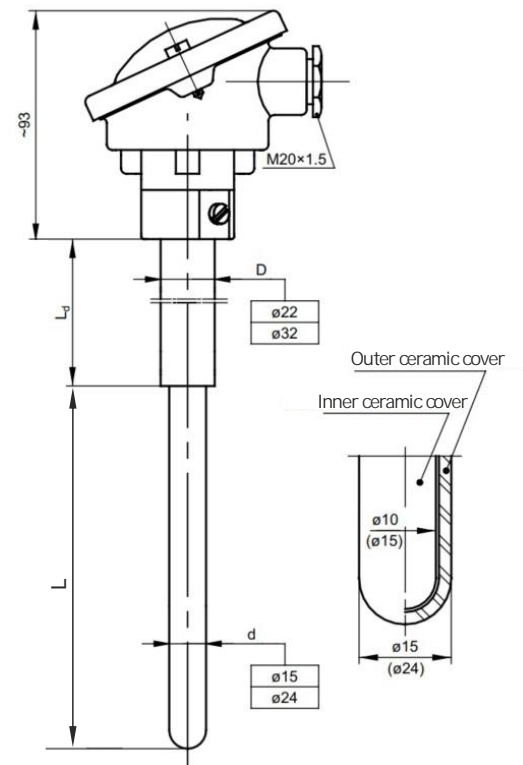
- glass and ceramics industry,
- heat-treating furnaces,
- boiler houses,
- air and gas ducts.

TECHNICAL DATA

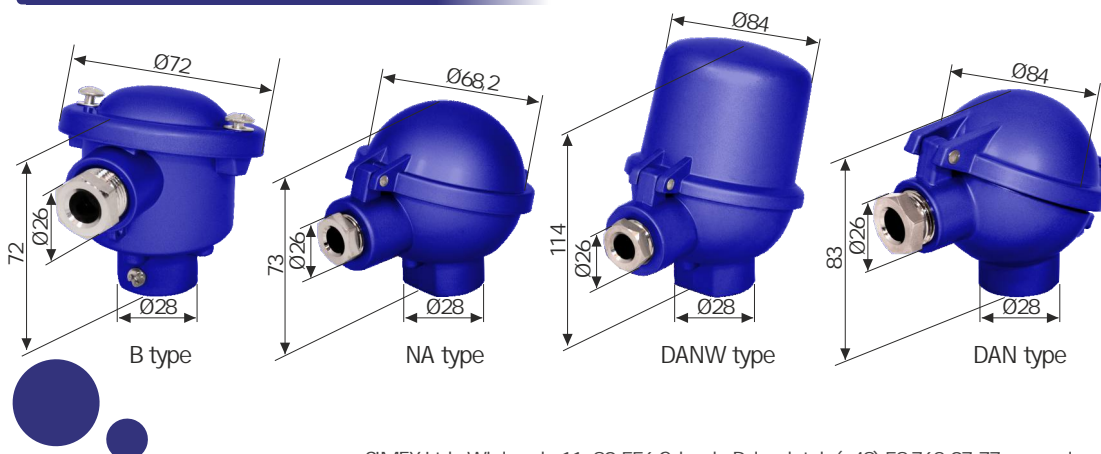
Sensing element	K, N, R, S, B thermocouple (single, double)
Measuring range	-40 ÷ 1200°C (TC K, N), 0 ÷ 1600°C (TC S, R), 600 ÷ 1700°C (TC B)
Connection head	B, NA, MA, DAN or other, operating temperature -40 ÷ 150°C
Class	1 or 2
Sheath	material: C530, C610, C799 nominal length: any (acc. to order) diameter: double (outer 15 or 24 mm / inner 10 or 15 mm)
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) N (NiCrSi-NiSi)	-40 ÷ 1000°C -40 ÷ 1000°C	± 1.5°C ± 0.0040°C x t	-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



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

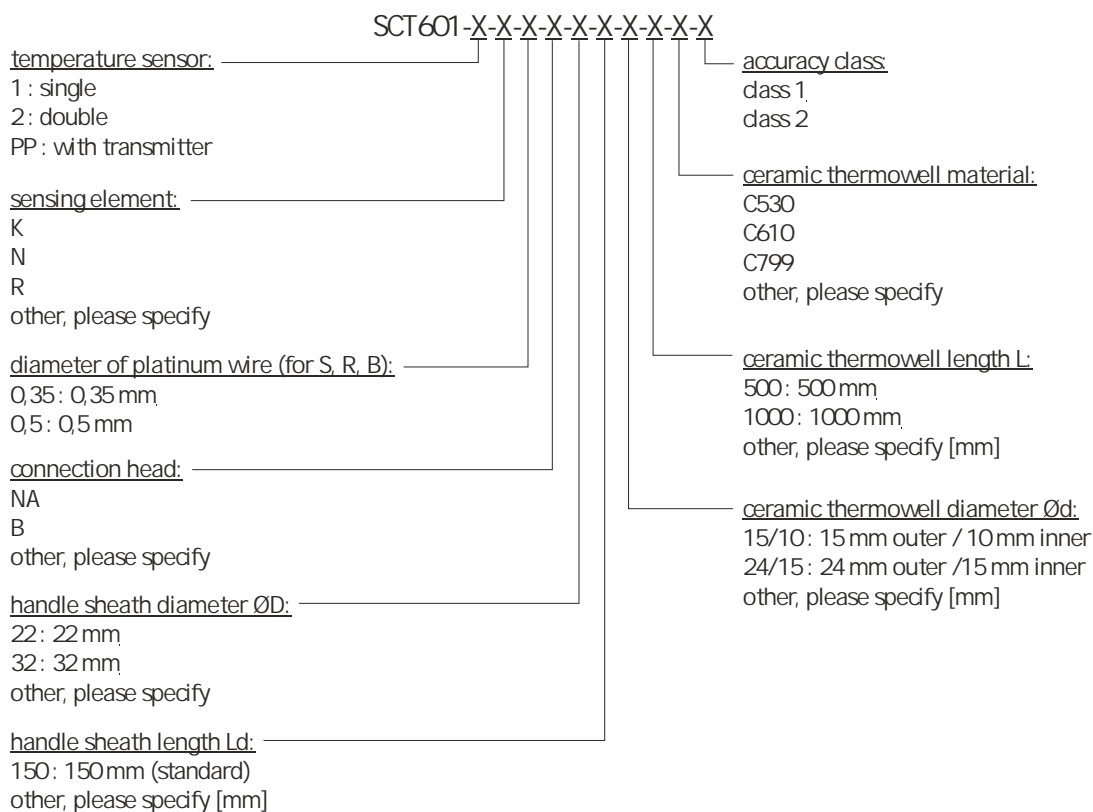
Mounting bracket
SUZ11



Mounting bracket
SUZ21



ORDERING



Ordering example:

SCT601-1-K-B-22-150-15/10-500-C799-2

Single TC temperature sensor, K thermocouple, 2 tolerance class, B head type, ceramic protection tube made of C799, 15 mm outer, 10 mm inner diameter, 500 mm length, handle sheath diameter 22 mm and length 150 mm

