

SCT300



with „mini” plug or socket

- mineral insulated thermoelectric sensor
- different types of sensor connections
- accurate measurement and short reaction time to temperature changes
- small dimensions enable working in hard-to-reach places
- resistance to vibrations and the possibility of bending
- thermowell made of nickel alloy (Inconel 600)

The mineral insulated thermocouple SCT300 contains the flexible part of the probe. The probe consists of a stainless steel outer sheath, in which the inner conductors are insulated with compressed into a highly compacted ceramic mass. The outer sheath is made of stainless steel or Ni alloy. The inner conductors are welded together at the measuring end of the sheathed cable to form the 'thermocouple' junction. In designs, where the measuring element is not insulated, the sheath is also welded with the thermocouple junction. Connector cables are connected to the other end of the sheathed cable and hermetically sealed with a sealing compound. The connector wires are the basis of the electrical interface with cable, a connector, or a terminal block. Due to their flexibility and the small diameters in which they are available, sheathed thermocouples can be used in locations that are not easily accessible.

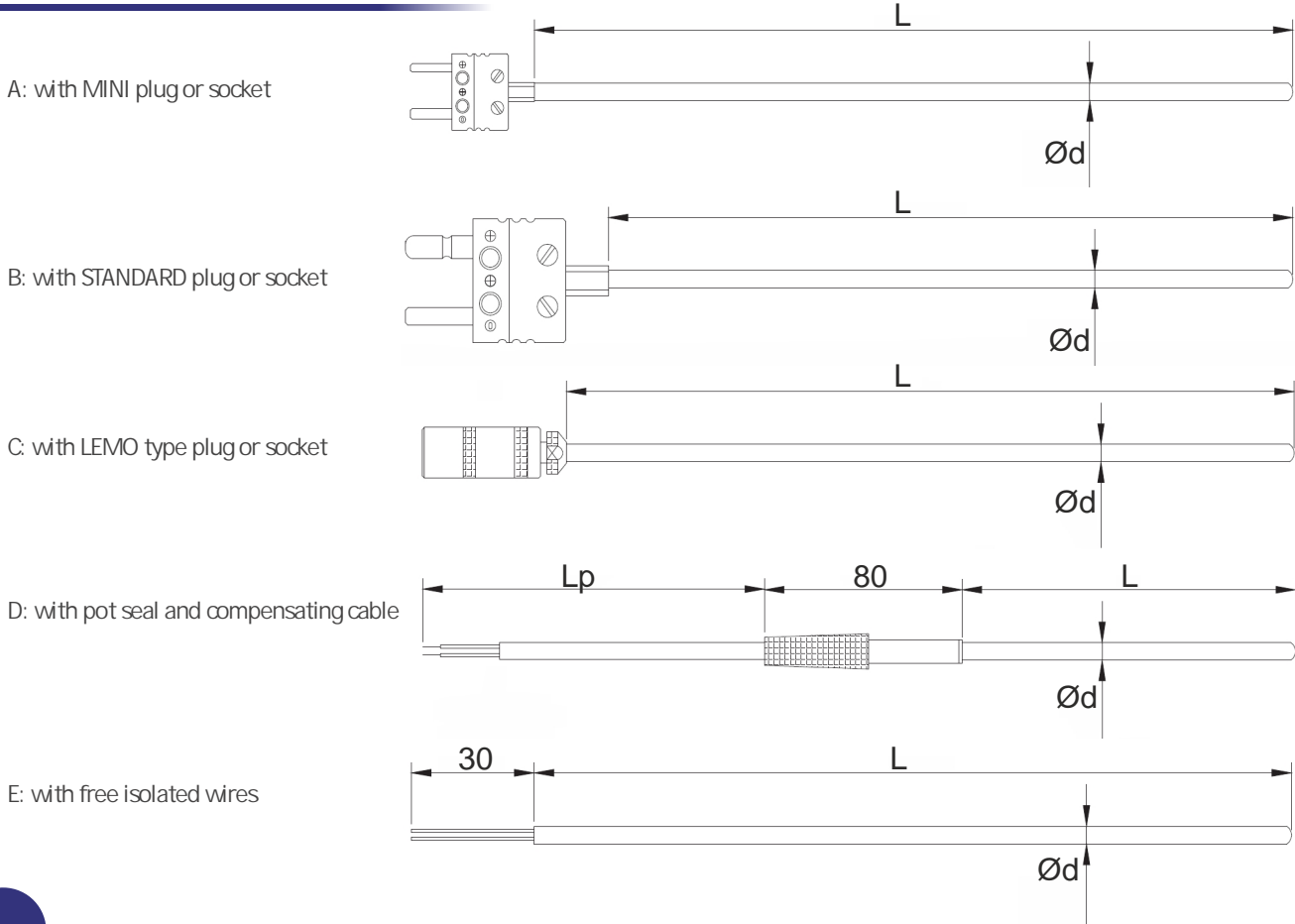
Application areas:

- general machinery and equipment design,
- measuring temperature of liquids, gases and solid bodies, measurement laboratories

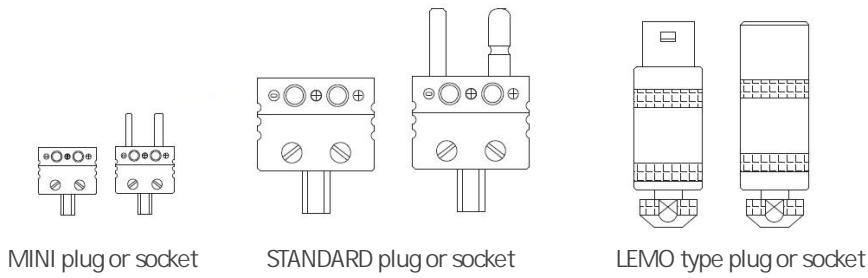
TECHNICAL DATA

Sensing element	J, K, N, R, S, B thermocouple or other (single, double)
Measuring range	-40 ÷ 1200°C
Process connection	standard / mini / Lemo plug or socket
Class	1 or 2
Sheath	material: 2.4816 alloy (Inconel 600) or other any nominal length according to order diameter: 3 mm, 4,5 mm, 6 mm
Cable	double isolation: teflon, silicon or fibreglass, standard length 1500 mm or other according to order
Junction	isolated from the sheath, grounded or exposed

CONSTRUCTIONS



CONNECTION



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

ORDERING

SCT300-X-X-X-X-X-X-X-X-X

- temperature sensor:
 - 1 : single
 - 2 : double
- construction:
 - A : MINI plug or socket
 - B : STANDARD plug or socket
 - C : LEMO type plug or socket
 - D : with pot seal and compensating cable
 - E : with free isolated wires
- sensing element:
 - J
 - K
 - other, please specify
- sheath diameter (Ød):
 - 3 mm
 - 6 mm
 - other, please specify
- sheath length (L):
 - please specify [mm]
- accuracy class:
 - class 1
 - class 2
- junction type:
 - SO : junction isolated from the sheath
 - SU : junction grounded
 - SSO : junction isolated from itself and from the sheath (for double sensor)
 - SZ : junction exposed
- connection type:
 - G : socket
 - W : plug
- connecting cable length (only for D construction type):
 - 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:
 SCT300-1-D-K-3-500-TT-1500-W-SO-2
 Single TC temperature sensor, K thermocouple, 2 tolerance class, thermowell diameter 3 mm, length 500 mm, teflon insulation, sensor with pot seal and compensating cable with length 1500 mm, hot junction isolated from the sheath.

