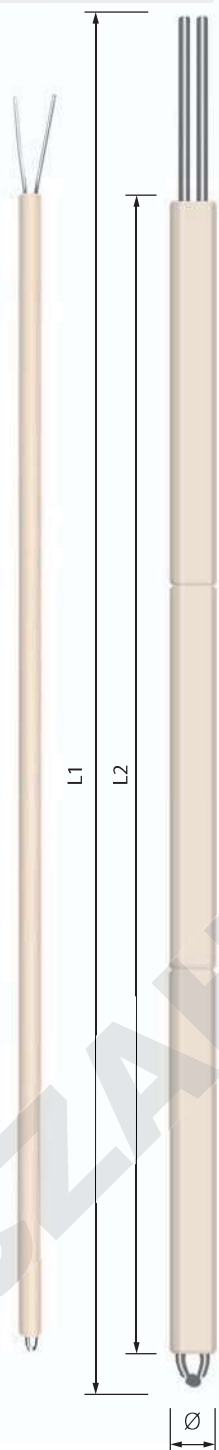


01

THERMOCOUPLE INSERTS

Measuring inserts are replaceable parts of thermocouples.

If an insert stops working or there are some serious measuring deviations but a thermowell itself is not damaged, it is enough to replace only an insert.



01	sensor type	accuracy class	length	diameter	sheath type	sheath length
	Give sensor type and its number; table 1 e.g.: 1K - simplex 2K - duplex	Give accuracy class e.g.: 1, 2 or 3; table. I page 63	Give length L1 [mm]	Give sensor diameter; table 2	Give sheath material; table 3	Give sheath total length L2 [mm]

TAB. ORDERING CODE:

01	1K	1	1050	3,0	IZ1	1000
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01 - 1K - 1 - 1050 - 3.0 - IZ1 - 1000

Measuring insert 01 (thermocouple). Simplex insert type K, Accuracy class "1", sensor length 1050 mm, diameter of a sensor 3.0 mm, ceramic sheath IZ1 (4 x 8 x 12 x 100) total length of a sheath 1000 mm.

TAB. 1 INSER TYPES

SENSOR TYPE	THERMO-ELECTRODES TYPE	LONG-TERM OPERATING RANGE [°C] *)	SHORT-TERM OPERATING RANGE [°C] *)
J	Fe - CuNi	+20 ÷ 700	-180 ÷ 750
T	Cu - CuNi	-185 ÷ 300	-250 ÷ 400
K	NiCr - NiAl	0 ÷ 1100	-180 ÷ 1350
N	NiCrSi - NiSi	0 ÷ 1100	-270 ÷ 1300
E	NiCr - CuNi	0 ÷ 800	-40 ÷ 900
S	PtRh10 - Pt	0 ÷ 1550	-50 ÷ 1750
R	PtRh13 - Pt	0 ÷ 1600	-50 ÷ 1700
B	PtRh30 - PtRh6	0 ÷ 1600	-50 ÷ 1700

*) Given temperature ranges are mostly dependent on the outer sheath material. Tolerance to PN-EN 60584-1, table I, page 63

TAB. 2 SENSOR DIAMETER *)

SENSOR DIAMETER [mm]	INSERT TYPE
0,35	R, S, B
0,5	J, K, S, R, B
1,0	K, J
1,5	K, J
2,0	K, J
3,0	K
3,26	J

*) For types N, T and E please contact the sales department

TAB. 3 SHEATH TYPE ¹⁾

TYPE	DIMENSIONS	NUMBER OF HOLES	HOLE DIAMETER	MATERIAL
IZ1	4 x 8 x 12 x 100 ³⁾	2	∅ 4	610
IZ2	∅ 14 x 3.5 x 50 ⁵⁾	4	∅ 3.5	610
IZ3 ⁴⁾	∅ 3.0 x 0.8 x L ²⁾	4	∅ 0.8	799
IZ4 ⁴⁾	∅ 4 x 0.8 x L ²⁾	4	∅ 0.8	799
IZ5 ⁴⁾	∅ 5.5 x 1.2 x L ²⁾	4	∅ 1.2	799
IZ6 ⁴⁾	∅ 8 x 1.5 x L ²⁾	4	∅ 1.5	799
IZ7 ⁴⁾	∅ 8.5 x 2 x L ²⁾	4	∅ 2.0	799

1) Other sheaths available on request

2) L- sheath length depends on a customer's requirements

3) Sheath with oval section and the length of 100 mm (for longer inserts: multiple of 100 mm)

4) Also used for simplex inserts

5) Round sheath with the length of 50 mm (for longer inserts: multiple of 50 mm)