

Extension and compensation wires for thermocouples (IEC 60584-3)

Indications (Example using thermocouple type K©)

Indication	Explanation
K	Thermocouple material according to standard. (See link "Tolerances for thermocouple materials according to the IEC 60584-1".)
KX	Extension cable of the same material composition as for thermocouples. The tolerances are thus equal though they are limited to a smaller range. The laying temperature can be further limited depending on e. g. insulation material.
KCA	Compensation material is quite differently composed compared to the actual thermocouple material. Still it has almost the same properties as the corresponding thermocouple but within a narrower temperature range. There may exist one or two compositions for the same thermocouple designated A and B. See table below.
KK	Double letters are no official standard. The manufacturers of thermocouple wires often mark the best selection (class 1) with double letters to separate it from the standard selection (class 2).

Specifications and error estimation

Thermocouple material	Tolerance class,		Laying temperature Min/max (°C)	Error estimation		
	1 (±µV)	2 (±µV)		Measuring point temperature (°C)	Error (±°C)	
					1	2
<i>Extension wires</i>						
TX	30	60	-25/100	300	0,5	1,0
JX	85	140	-25/200	500	1,5	2,5
EX	120	200	-25/200	500	1,5	2,5
KX	60	100	-25/200	900	1,5	2,5
NX	60	100	-25/200	900	1,5	2,5
<i>Compensating wires</i>						
KCA	-	100	0/150	900	-	2,5
KCB	-	100	0/100	900	-	2,5
NC	-	100	0/150	900	-	2,5
SCA	-	30	0/100	1000	-	2,5
SCB	-	60	0/200	1000	-	5,0
RCA	-	30	0/100	1000	-	2,5
RCB	-	60	0/200	1000	-	5,0

Extension and compensation wires for thermocouples according to IEC 60584-3.
Laying temperature with respect to the leads. Insulation material can further limit the laying temperature.

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