

## Tolerance classes for thermocouples according to the IEC 60 584-2 (1995)

Thermocouple	Class 1 (°C)	Class 2 (°C)	Class 3 (°C)
<b>Type T</b>			
Temperatur	$-40 \leq t \leq 125$	$-40 \leq t \leq 133$	$-67 \leq t \leq 40$
Tolerans	$\pm 0,5$	$\pm 1$	$\pm 1$
Temperatur	$125 \leq t \leq 350$	$133 \leq t \leq 350$	$-200 \leq t \leq -67$
Tolerans	$\pm 0,004  t $	$\pm 0,0075  t $	$\pm 0,015  t $
<b>Type E</b>			
Temperatur	$-40 < t \leq 375$	$-40 \leq t \leq 333$	$-167 \leq t \leq 40$
Tolerans	$\pm 1,5$	$\pm 2,5$	$\pm 2,5$
Temperatur	$375 \leq t \leq 800$	$333 \leq t \leq 900$	$-200 \leq t \leq -167$
Tolerans	$\pm 0,004  t $	$\pm 0,0075  t $	$\pm 0,015  t $
<b>Type J</b>			
Temperatur	$-40 < t \leq 375$	$-40 \leq t \leq 333$	-
Tolerans	$\pm 1,5$	$\pm 2,5$	-
Temperatur	$375 \leq t \leq 750$	$333 \leq t \leq 750$	-
Tolerans	$\pm 0,004  t $	$\pm 0,0075  t $	-
<b>Types K och N</b> <i>See diagramme below</i>			
Temperatur	$-40 < t \leq 375$	$-40 \leq t \leq 333$	$-167 \leq t \leq 40$
Tolerans	$\pm 1,5$	$\pm 2,5$	$\pm 2,5$
Temperatur	$375 \leq t \leq 1000$	$333 \leq t \leq 1200$	$-200 \leq t \leq -167$
Tolerans	$\pm 0,004  t $	$\pm 0,0075  t $	$\pm 0,015  t $
<b>Types S och R</b>			
Temperatur	$0 < t \leq 1100$	$0 \leq t \leq 600$	-
Tolerans	$\pm 1$	$\pm 1,5$	-
Temperatur	$1100 \leq t \leq 1600$	$600 \leq t \leq 1600$	-
Tolerans	$\pm [1+0,003(t-1100)]$	$\pm 0,0025  t $	-
<b>Type B</b>			
Temperatur	-	-	$600 \leq t \leq 800$
Tolerans	-	-	$\pm 4$
Temperatur	-	$600 \leq t \leq 1700$	$800 \leq t \leq 1700$
Tolerans	-	$\pm 0,0025  t $	$\pm 0,005  t $

### Temperature referency

Reference point at 0 °C

### Explanation

|t| is the positive value of the temperature t.

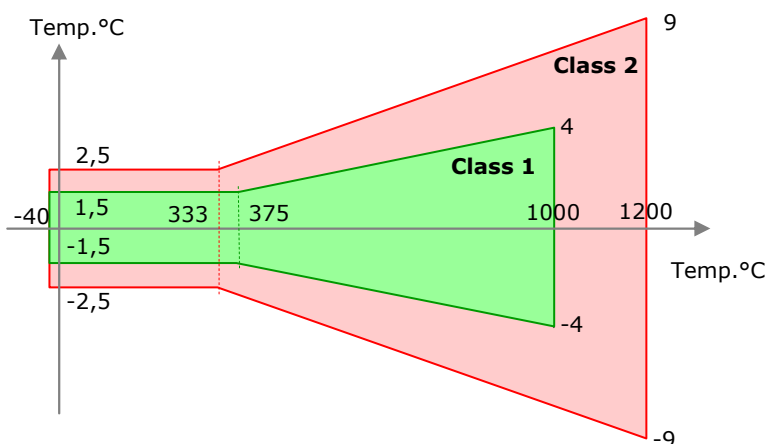
### Tolerances

The tolerances of the table should be taken approximatively. They are valid only for unused materials.

### Sources of error

Many factors such as high temperature combined with time of exposure, vacuum, or drawn wire can quickly lead to deviations that override the tolerances of the table.

Tolerances for the types K och N



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