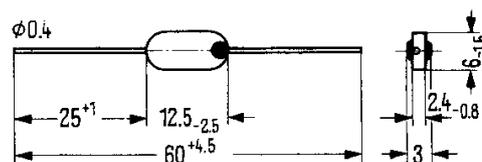


Negative temperature coefficient thermistor compensation and measuring type

Thermistor K 11 lends itself to the solution of compensation and measuring problems at low loads. It is available with 14 different resistance values. Special production and aging processes ensure high reliability. The surface is coated with blue enamel. The type is identified by its characteristic oval shape. The resistance value R_{20} and the value of the temperature coefficient are stamped on the thermistor. A colour dot indicates closer tolerance ranges of the resistance value, e.g. $R_{20} \pm 10\%$ = silver; $R_{20} \pm 5\%$ = gold.

| Type | Order number | Type | Order number |
|-----------------------|-------------------|-----------------------|-------------------|
| K 11/5%/50 Ω | Q 63011-K 500-J | K 11/10%/10 K | Q 63011-K 103-K |
| K 11/5%/100 Ω | Q 63011-K 101-J | K 11/10%/20 K | Q 63011-K 203-K |
| K 11/5%/200 Ω | Q 63011-K 201-J | K 11/10%/50 K | Q 63011-K 503-K |
| K 11/5%/500 Ω | Q 63011-K 501-J | K 11/10%/100 K | Q 63011-K 104-K |
| K 11/5%/1 K | Q 63011-K 102-J 1 | K 11/10%/500 K | Q 63011-K 504-K |
| K 11/5%/2 K | Q 63011-K 202-J | K 11/20%/10 Ω | Q 63011-K 100-M |
| K 11/5%/5 K | Q 63011-K 502-J | K 11/20%/20 Ω | Q 63011-K 200-M |
| K 11/5%/10 K | Q 63011-K 103-J | K 11/20%/50 Ω | Q 63011-K 500-M |
| K 11/5%/20 K | Q 63011-K 203-J | K 11/20%/100 Ω | Q 63011-K 101-M |
| K 11/5%/50 K | Q 63011-K 503-J | K 11/20%/200 Ω | Q 63011-K 201-M |
| K 11/5%/100 K | Q 53011-K 104-J | K 11/20%/500 Ω | Q 63011-K 501-M |
| K 11/10%/20 Ω | Q 63011-K 200-K | K 11/20%/1 K | Q 63011-K 102-M 1 |
| K 11/10%/50 Ω | Q 63011-K 500-K | K 11/20%/2 K | Q 63011-K 202-M |
| K 11/10%/100 Ω | Q 63011-K 101-K | K 11/20%/5 K | Q 63011-K 502-M |
| K 11/10%/200 Ω | Q 63011-K 201-K | K 11/20%/10 K | Q 63011-K 103-M |
| K 11/10%/500 Ω | Q 63011-K 501-K | K 11/20%/20 K | Q 63011-K 203-M |
| K 11/10%/1 K | Q 63011-K 102-K 1 | K 11/20%/50 K | Q 63011-K 503-M |
| K 11/10%/2 K | Q 63011-K 202-K | K 11/20%/100 K | Q 63011-K 104-M |
| K 11/10%/5 K | Q 63011-K 502-K | K 11/20%/500 K | Q 63011-K 504-M |



Weight approx. 0.5 g Dimensions in mm

Maximum ratings

Maximum continuous operating temperature

Maximum continuous load ($T_{amb} = 20^\circ\text{C}$)

Characteristics ($T_{amb} = 20^\circ\text{C}$)

Thermal conduction constant

Thermal cooling time constant

Tolerance of B -value

| | K 11 | |
|---------------|---------|------------------|
| T | + 120 | $^\circ\text{C}$ |
| P_{tot} | 100 | mW |
| $G_{th\ amb}$ | 8 | mW/K |
| τ_{th} | 30 | s |
| B -Tol. | ± 5 | % |

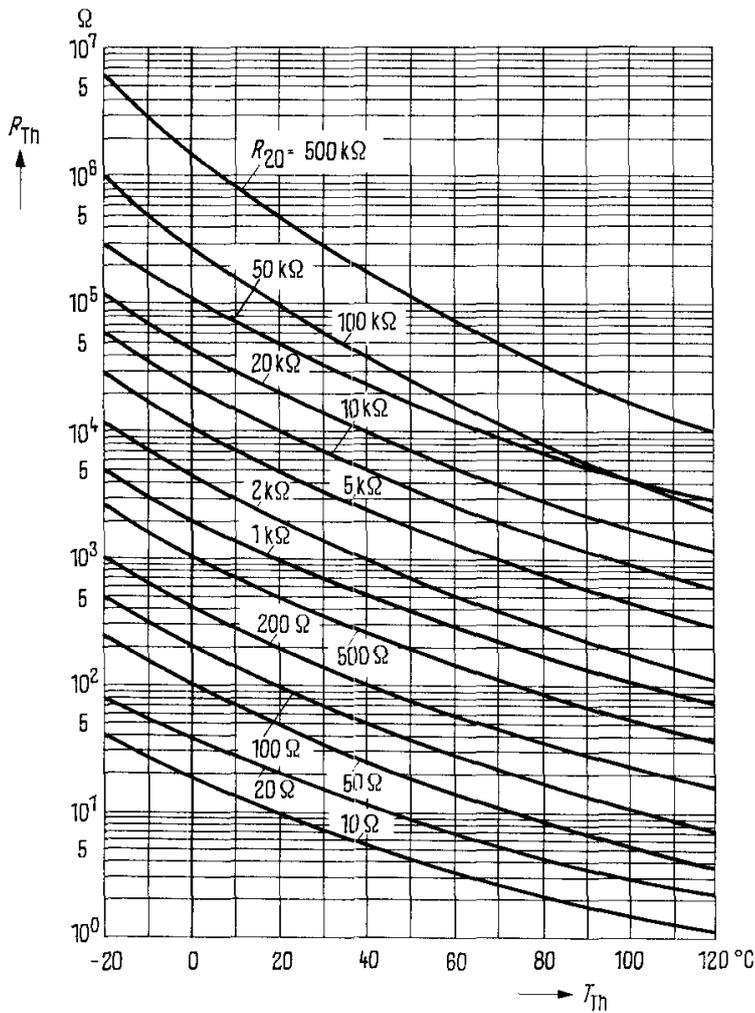
K 11

Delivery program

Nominal values of cold-state resistance R_{20} , R_{25} , B -value and (negative) temperature coefficient at 20 °C, as well as tolerances of R_{20} .

| K 11 | | | | | | | | | | | | | | | |
|-------------------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|----------|
| R_{20} | 10 | 20 | 50 | 100 | 200 | 500 | 1k | 2k | 5k | 10k | 20k | 50k | 100k | 500k | Ω |
| R_{25} | 8.6 | 17 | 42 | 84 | 170 | 420 | 830 | 1.7k | 4.2k | 8.3k | 16.6k | 41k | 78k | 390k | Ω |
| B ¹⁾ | 2580 | 2580 | 3000 | 3000 | 3000 | 3000 | 3240 | 3240 | 3250 | 3250 | 3250 | 3250 | 4250 | 4550 | JK/J |
| TC | 3.0 | 3.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 5.0 | 5.3 | %/K |
| $\pm 20\%$ (b) | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| $\pm 10\%$ (c) | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| $\pm 5\%$ (d) | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |

Thermistor resistance as a function of the thermistor temperature $R_{T_h} = f(T_{T_h})$ referred to the nominal values at 20 °C indicated in the table



1) Determined by measuring at 20 °C and 100 °C