



MATERIAL TYPE: G

AVAILABLE PRODUCTS:

HM, C100, EC95, DC95, MC65, MF65, SC30, SC50

Data for material type : G

| Temp Range (°C) | Ratio | Beta |
|-----------------|-------|------|
| 0 to 50 | 10.48 | 4147 |
| 0 to 70 | 22.65 | 4178 |
| 25 to 50 | 2.97 | 4201 |
| 25 to 85 | 10.91 | 4252 |
| 25 to 100 | 17.80 | 4271 |
| 25 to 125 | 37.37 | 4298 |
| 37.8 to 104.4 | 11.46 | 4299 |

To calculate Rt/R25 at temperatures other than those listed in the table, use the following equation:

$$Rt/R25 = \exp\{A + B/T + C/T^2 + D/T^3\}$$

where T = temperature in K

where K = °C + 273.15

| Temp Range (°C) | A | B | C | D |
|-----------------|----------------|---------------|----------------|----------------|
| -50 to 0 | -1.5617550E+01 | 5.0690086E+03 | -9.6895494E+04 | -7.7906095E+06 |
| 0 to 50 | -1.5573783E+01 | 5.0310600E+03 | -8.5956133E+04 | -8.8392667E+06 |
| 50 to 100 | -1.5358271E+01 | 4.7986321E+03 | -3.1012401E+03 | -1.8614924E+07 |
| 100 to 150 | -1.8012530E+01 | 7.9402031E+03 | -1.2428041E+06 | 1.4445457E+08 |

To calculate the actual thermistor temperature as a function of the thermistor resistance, use the following equation:

$$1/T = a + b(\ln Rt/R25) + c(\ln Rt/R25)^2 + d(\ln Rt/R25)^3$$

| Rt/R25 range | a | b | c | d |
|--------------------|---------------|---------------|----------------|----------------|
| 85.730 to 3.5223 | 3.3537950E-03 | 2.4096581E-04 | 2.2453225E-06 | 1.1817106E-07 |
| 3.5223 to 0.33620 | 3.3540142E-03 | 2.4060636E-04 | 2.4402986E-06 | 8.0075806E-08 |
| 0.33620 to 0.05619 | 3.3541651E-03 | 2.4087966E-04 | 2.5742490E-06 | 8.8745970E-08 |
| 0.05619 to 0.01381 | 3.3357228E-03 | 2.2502940E-04 | -1.9459544E-06 | -3.4181652E-07 |

†The deviation resulting from the tolerance on the material constant, Beta. The deviation must be added to the resistance tolerance of the part as specified at 25°C.

| Temperature (°C) | Rt/R25 nominal | Temp Coef (%/°C) | β Deviation† (±%) |
|------------------|----------------|------------------|-------------------|
| -50 | 85.73 | 7.50% | 3.48% |
| -45 | 59.31 | 7.25% | 3.27% |
| -40 | 41.54 | 7.01% | 3.03% |
| -35 | 29.43 | 6.78% | 2.77% |
| -30 | 21.09 | 6.56% | 2.50% |
| -25 | 15.28 | 6.35% | 2.23% |
| -20 | 11.18 | 6.15% | 1.96% |
| -15 | 8.261 | 5.96% | 1.70% |
| -10 | 6.162 | 5.77% | 1.44% |
| -5 | 4.639 | 5.60% | 1.19 |
| 0 | 3.522 | 5.43% | 0.95% |
| 5 | 2.697 | 5.26% | 0.73% |
| 10 | 2.081 | 5.11% | 0.53% |
| 15 | 1.618 | 4.96% | 0.34% |
| 20 | 1.268 | 4.82% | 0.16% |
| 25 | 1.000 | 4.68% | 0.00% |
| 30 | 0.7942 | 4.55% | 0.14% |
| 35 | 0.6348 | 4.42% | 0.26% |
| 40 | 0.5106 | 4.30% | 0.37% |
| 45 | 0.4131 | 4.18% | 0.46% |
| 50 | 0.3362 | 4.07% | 0.54% |
| 55 | 0.2751 | 3.96% | 0.60% |
| 60 | 0.2263 | 3.86% | 0.65% |
| 65 | 0.1871 | 3.75% | 0.68% |
| 70 | 0.1555 | 3.66% | 0.70% |
| 75 | 0.1298 | 3.56% | 0.71% |
| 80 | 0.1089 | 3.48% | 0.71% |
| 85 | 0.09170 | 3.39% | 0.69% |
| 90 | 0.07757 | 3.31% | 0.66% |
| 95 | 0.06589 | 3.23% | 0.62% |
| 100 | 0.05619 | 3.15% | 0.57% |
| 105 | 0.04810 | 3.07% | 0.50 |
| 110 | 0.04133 | 3.00% | 0.41% |
| 115 | 0.03563 | 2.92% | 0.36% |
| 120 | 0.03083 | 2.87% | 0.26% |
| 125 | 0.02676 | 2.80% | 0.15% |
| 130 | 0.02330 | 2.73% | 0.09% |
| 135 | 0.02036 | 2.68% | 0.05% |
| 140 | 0.01784 | 2.61% | 0.17% |
| 145 | 0.01567 | 2.55% | 0.26% |
| 150 | 0.01381 | 2.50% | 0.43% |

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