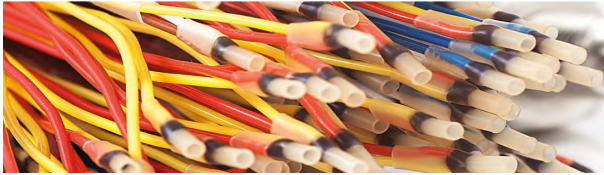
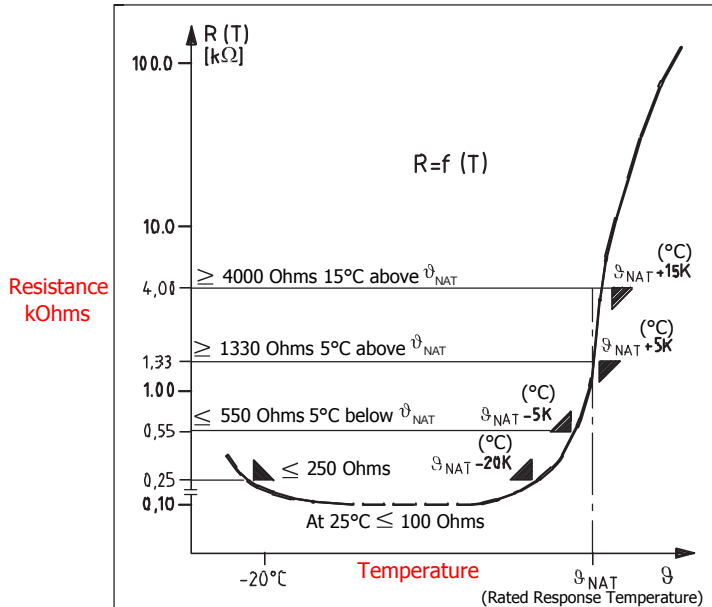


Thermistors & PT100's for electric motors



General information on PTC thermistors

PTC Thermistors according to DIN 44081 (triple sensors acc. to DIN 44082) are used to protect electrical equipment from thermal overload. The temperature range is from 60 to 180°C. PTC thermistor beads with different rated response temperatures can be connected in series. This permits optimal and economic thermal protection of machines and windings with different limit temperatures.

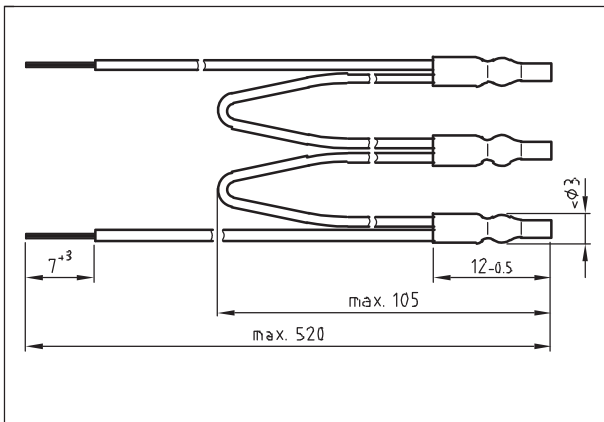


Technical Data PTC acc. to DIN 44081/082

	Single	Triple	
Max. operating voltage	30	30	V
Rated response temperature ϑ_{NAT}	see ordering information		°C
Tolerance of ϑ_{NAT}	± 5	± 5	K(°C)
Reproducibility of ϑ_{NAT}	± 0.5	± 0.5	K(°C)
Resistance at 25°C (R_{25})	≤ 100	≤ 300	Ω
Resistance at a temperature of $\vartheta_{NAT} - 5K$ (°C)	≤ 550	≤ 1650	Ω
Resistance at a temperature of $\vartheta_{NAT} + 5K$ (°C)	≥ 1330	≥ 3990	Ω
Resistance at a temperature of $\vartheta_{NAT} + 15K$ (°C)	≥ 4000	≥ 12,000	Ω
Thermal response time t_a	≤ 5	≤ 5	s
Insulation test voltage U_{is}	AC 2.5	AC 2.5	kV
Max. operating temperature	200	200	°C
Max. storage temperature	160	160	°C
Min. storage temperature	-25	-25	°C
Weight	2	3.5	g

PTC Identification and Part Numbers

The colour of the connection leads identifies the rated response temperature. These are defined in DIN 44081/082



Rated response temperature NAT in °C	Lead colours outer / outer (inner: yellow)	Mini Triple DIN 44082 Part-Number
60	white/grey	STPTC3060C
70	white/brown	STPTC3070C
80	white/white	STPTC3080C
90	green/green	STPTC3090C
100*	red/red	STPTC3100C
110	brown/brown	STPTC3110C
120*	grey/grey	STPTC3120C
130	blue/blue	STPTC3130C
140*	white/blue	STPTC3140C
145	white/black	STPTC3145C
150	black/black	STPTC3150C
155	blue/black	STPTC3155C
160*	blue/red	STPTC3160C
170	white/green	STPTC3170C
180	white/red	STPTC3180C

*Normally in stock

Application

PTC thermistors are used to monitor temperature in machines and installations. The design ensures short response times and easy installation.