

TRIPLE THERMISTORS PTC Type WT



<u>User's manual</u>



Features

- Characteristic curve according to DIN 44081
- **Resistance** R 25 < 100 Ohm
- Mounting in windings of electrical motors and
- transformers for the monitoring of limit temperatures
- **Miniature construction**/external diameter =/> 3mm depending on insulation
- Protection paint coat against chemical influences
- Extended range of temperature up to 190°C
- **100%-controlled production**/ the resistance R ₂₅ and the nominal response temperature of each component is proved.
- **The thermistors construction** corresponds, concerning strength and insulation, to the requirements for mounting in copper windings.
- **Customer designed solutions** can be realized costsaving.
- Quick and confidently response action

Operation

PTC Thermistors are temperature-sensitive ceramic semi-conductor resistors with a positive temperature coefficient.

The PTC-sensors change their resistance, when reaching the nominal temperature precipitously. Within changes of temperature of only 10K arise changes of resistance larger than 1kOhm. PTCs will be mounted on a releasing tool, which changes gear over a relais after reaching the nominal response temperature.

Installation devices

Colors and temperatures

Basically PTC thermistors have to be installed parallely to the winding wires Airs inclusion influences thermal direct coupling negatively and should therfore be avoided.

The PTC thermistor's mechanical wear during the forming of the end windings can be reduced by correct installation

Nominal temperature	Colors	Name (triplet)
100°C	red/red	WT-100
110°C	brown/brown	WT-110
120°C	white/white	WT-120
130°C	blue/blue	WT-130

Nominal temperature	Colors	Name (triplet)
140°C	white/blue	WT-140
150°C	black/black	WT-150
160°C	blue/red	WT-160
180*°C	white/red	WT-180



Technical data

Max.working voltage U max.	30V		
Nominal temperature ϑ_{NAT}	60°C à 190°C		
Tolerance about ϑ_{NAT}	± 5K		
Reproducability about ϑ_{NAT}	± 5K		
Resistance at 25°C ¹	≤ 100 Ω ≤ 300 Ω		
Resistance at ϑ_{NAT} - T 1	≤ 550 Ω ≤ 1650 Ω		
Resistance at ϑ_{NAT} + T ¹	≤ 1330 Ω 3990 Ω		
Resistance at ϑ_{NAT} + 15 K ²	≤ 4 kΩ ≤ 12 kΩ		
Thermal reaction time	< 5 s		
Insulation strength	2,5 kV		
Max. working temperature	200°C		
Ambient temperature	- 25°C to 200°C		
¹⁾ Tension continue $\leq 2,5 \text{ V}$ ²⁾ Tension continue $\leq 7,5 \text{ V}$			

Dimensions (in mm)



Resistance - temperature - characteristic curve

