

Key Features

- Temperature monitoring
- Optimal for direct installation in the coils
- Also suitable in enclosures as overheating protection

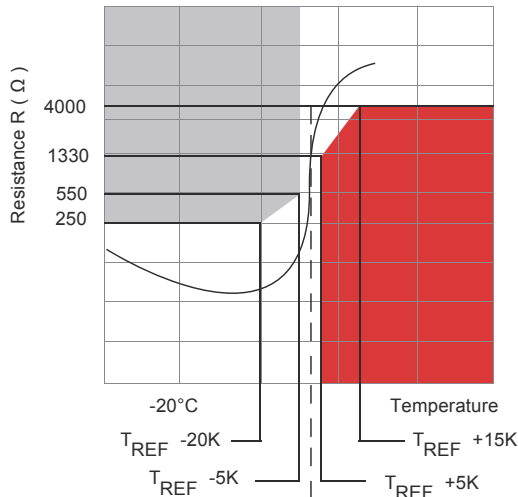


Installation and Functions

Where possible, the PTCs are to be inserted parallel to the coil. As a result, when shaping the coil ends, the mechanical stress of the PTCs is minimised. In so doing, the Mylar®-Nomex® shrink cap is highly suited to this purpose due to its mechanical stability (no cold flow in contrast to Teflon®). In connection with the miniature pill (Ø 1.5 mm) response times of 5 to 10 seconds (max.) are achieved depending on the version.

Thermik thermistors correspond to DIN 44081 and/or 44082, IEC60034-11:2004 and are characterised by high resistance to temperatures. Resistance increases greatly in the range of the rated response temperature. Via a trigger device, this change can be used to shut down the load current circuit. Electronic evaluations in are also possible in different applications.

Temperature resistance diagram and main parameters in accordance with DIN 44081/44082 and IEC60034-11:2004



General characteristics

Temperature resistance diagram in accordance with IEC60034-11:2004w, DIN 44081 (single), DIN 44082 (triplet). Advantageous values: Rated response temperature T_{REF} 60 °C to 190 °C*, in each case in increments of 10 K.

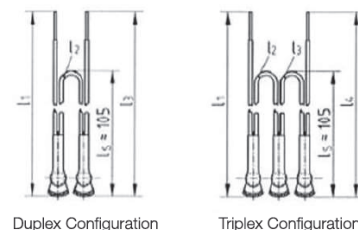
Temperature range	Resistance	Measured voltage[V _{DC}]
-20 °C to T _{REF} -20 K	20 Ω to 250 Ω	≤ 2,5 V
Temperature range 90 °C - 160 °C		
T _{REF} -5 K	≤ 550 Ω	≤ 2,5 V
T _{REF} +5 K	≤ 1.330 Ω	≤ 2,5 V
T _{REF} +15 K	≤ 4.000 Ω	≤ 7,5 V pulsed

Dielectric strength of the insulation U_{eff} = 2.500 V

* These parameters relate to T_{REF} from 90 °C to 160 °C. Resistance values for T_{REF} < 90 °C and > 160 °C are available on request.

Specifications

PTC Thermistor Sensor	STM
Insulation Material	Teflon
Nominal response temperature	70°C - 180°C
Operating voltage	2.5VDC-30VDC
Max. operating voltage	30VDC
Max. recommended sensor voltage	2.5VDC-7.5VDC
High voltage insulation	2.5kV
Length of insulation cap	12.0mm
Diameter	≤3.0mm



Duplex Configuration

Triplex Configuration

90	100	105	110	115	120	125	130	135
GREEN	RED	BLUE	BROWN	BLUE	GREY	RED	BLUE	RED
GREEN	RED	GREY	BROWN	GREEN	GREY	GREEN	BLUE	BROWN
140	145	150	155	160	165	170	180	
WHITE	WHITE	BLACK	BLUE	BLUE	BLUE	WHITE	WHITE	
BLUE	BLACK	BLACK	BLACK	RED	BROWN	GREEN	RED	

SNM

With connector cables; insulation Mylar®-Nomex®

Insulation material	Mylar®-Nomex®
Response temperature	70 °C – 180 °C
Operating voltage range	2.5 V DC – 24.0 V DC
max. permissible operating voltage	30.0 V DC
max. recommended sensor voltage	2.5 V DC – 7.5 V DC
High voltage resistance	2.5 kV
Length of the insulation cap	12.0 mm
Diameter	≤ 3.0 mm
Available approvals (please state)	UL; CSA



STM

With connector cables; insulation PTFE

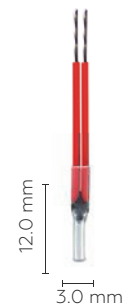
Insulation material	PTFE
Response temperature	70 °C – 180 °C
Operating voltage range	2.5 V DC – 24.0 V DC
max. permissible operating voltage	30.0 V DC
max. recommended sensor voltage	2.5 V DC – 7.5 V DC
High voltage resistance	2.5 kV
Length of the insulation cap	12.0 mm
Diameter	≤ 3.0 mm
Available approvals (please state)	UL; CSA



SKM

With connector cables; insulation PVDF (KYNAR®)

Insulation material	PVDF (KYNAR®)
Response temperature	70 °C – 180 °C
Operating voltage range	2.5 V DC – 24.0 V DC
max. permissible operating voltage	30.0 V DC
max. recommended sensor voltage	2.5 V DC – 7.5 V DC
High voltage resistance	2.5 kV
Length of the insulation cap	12.0 mm
Diameter	≤ 3.0 mm
Available approvals (please state)	UL; CSA



LTM

With connector cables; insulation in the screw on housing

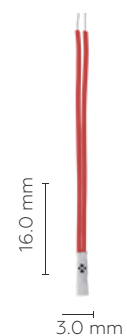
Insulation material	Fully insulated aluminium housing
Response temperature	70 °C – 180 °C
Operating voltage range	2.5 V DC – 24.0 V DC
max. permissible operating voltage	30.0 V DC
max. recommended sensor voltage	2.5 V DC – 7.5 V DC
High voltage resistance	2.5 kV
Housing height	8.0 mm
Thread length	M 4/5.0 mm
Width across flats/Max. torque	10/2 Nm
Available approvals (please state)	UL; CSA



SSM

With connector cables; insulation Mylar®-Nomex®

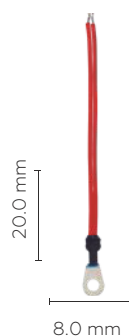
Insulation material	PVDF (KYNAR®)
Response temperature	70 °C – 180 °C
Operating voltage range	2.5 V DC – 24.0 V DC
max. permissible operating voltage	30.0 V DC
max. recommended sensor voltage	2.5 V DC – 7.5 V DC
High voltage resistance	2.5 kV
Length of the insulation cap	16.0 mm
Diameter	≤ 3.0 mm
Available approvals (please state)	UL; CSA



TPR

With connector cables; insulation Epoxy

Insulation material	Epoxy
Response temperature	70 °C – 180 °C
Operating voltage range	2.5 V DC – 24.0 V DC
max. permissible operating voltage	30.0 V DC
max. recommended sensor voltage	2.5 V DC – 7.5 V DC
High voltage resistance	2.5 kV
Length of the crimp cable lug	max. 20.0 mm
Diameter	≤ 8.0 mm
Available approvals (please state)	UL; CSA



The listed products are an extract from our standard range. Other versions and customised manufacturing are available upon request.