Temperature limiter
up to 16 A nominal current automatic reset

G G series

TMC product range overview

Temperature limiter:

Product design	Feature	Application	Series
	automatic reset	up to 250 mA	F
	automatic reset	up to 6,3 A	C
	automatic reset	up to 16 A	G
	selfhold	up to 10 A	R
	normally open	up to 1 A	O

Temperature sensors:

Product design	Version	Features	Series
	PTC	sudden change of resistance	M
	PT1000 NTC	consistent dimensions	S
	Platinum sensor	extremely precise	PT
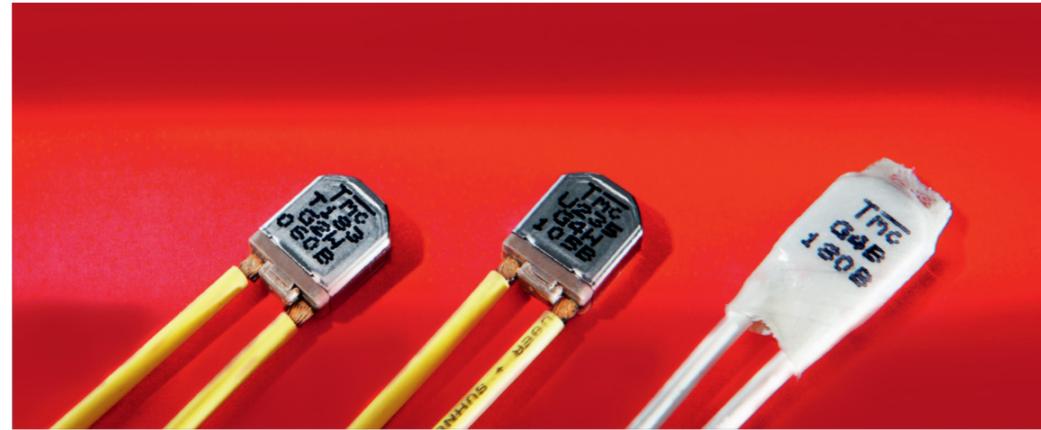
Description

Temperature protectors of the C series are high performance miniature bimetal switches which can be used in a wide range of applications and different devices. They are specifically designed for the use in electrical windings what makes them the ideal choice for the protection of motors, transformers and chokes. The high performance contact system is designed for nominal currents up to 16 A. Protectors of the G series are primarily designed for use as current independent protection. The contacts open in a snap action when reaching the cut off temperature and close again automatically when the temperature decreases to the reset temperature. Numerous customizations extend the spectrum of applications.

Customer specific solutions

Our creative R&D team turns your ideas into innovative products. Please contact us.

Powerful
by generously dimensioned contact system
Smallest current sensitivity
by separated current circuit with high conductance
Highest pressure resistance
by optimal construction steel housing
Thermally solid connections
by welded wire connections
Constant dimensions
by front side mounted wires for all wire cross sections
Electromagnetic shielding
by ferromagnetic housing
Constant resistance
by optimal contact material and high contact pressure
Consistent high quality level
by automated production

Tmc ®
Thermal Micro Control

Tmc ®
Thermal Micro Control

Temperature limiter
G series
Technical specifications

TMC — Manufacturer
G4B — Type G4, version B
150B — Nominal switching temperature 150 °C
        Tolerance class B

Specifications

Type	G2	G4
Contact version	Normally closed (nc), snap action	
Switching cycles	10.000 cycles	
AC cos φ = 1,0	11 A/250 V	16 A/250 V
AC cos φ = 0,6	8 A/250 V	10 A/250 V
Switching cycles	2.000 cycles	
AC cos φ = 1,0	22 A/ 250 V*	32 A/250 V*
Switching cycles	300 cycles	
AC cos φ = 1,0	35 A/ 250 V*	45 A/250 V*
Current sensitivity	very low	
Nominal switching temperature (NST)	in 5 K steps	
Standard	50 °C ... 200 °C**	
Approved	70 °C ... 180 °C	
NST tolerance	± 5 K (code letter B)**	
Reset temperature (RST)	40 K ± 15 K below NST (> 35 °C)	
Resistance	< 50 mΩ	
Contact bouncing time	< 1ms	
Pressure resistance	> 600 N*	
Dielectric strength	2 kV	
Ambient temperature	T180	
Protection level	IP00**	
Protection class	Suitable for use in devices of class I & II	
Principle of operation at degree of contamination	Type B: clean Type C: normal	

* TMC measurement   ** different values on request

Current sensitivity

ΔT [K]
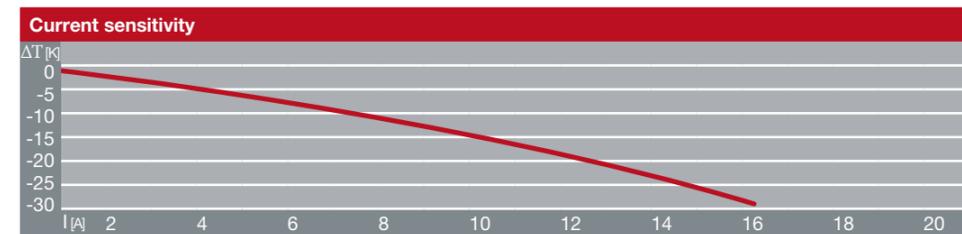
Depends on thermal coupling, wire dimensions, environmental influences.

Versions

Version W	Version B	Version L	Version S
Switch not insulated	Switch insulated	Switch not insulated	Switch not insulated
Leads: stranded, solid	Leads: stranded, solid	Connectors: Pin	Connectors: SMD

Dimensions in mm. Resistance to vacuum impregnation on request.

Wires

Standard		
Type (Insulation)	up to 150 °C:	ISO F
	over 155 °C:	ISO H
Length		100 mm / 300 mm
Stripped length		5 mm
Cross section		0,5 mm² (G2) / 0,75 mm² (G4)
Operating voltage		450 V / 600 V

Alternative and UL listed wires on request.

Approvals

Institute	Standard	Number
VDE	EN60730	40035464
UL	UL60730	E173279

Ordering example for standard version

G4B - 150B - 100/100

Wire length (100 mm/100 mm)
Tolerance (B = ± 5 K)
Nominal switching temperature (150 °C)
Version (B = Switch insulated)
G series, type G4

Options

Connectors	Wiring
- Wire end sleeves	- Multiple wirings
- Wire end eyelets	- Costumized special
- Push-on contacts	designs
- Snap-on contacts	

Example

Triplet version B

Please contact us for customer specific solutions.

My notes