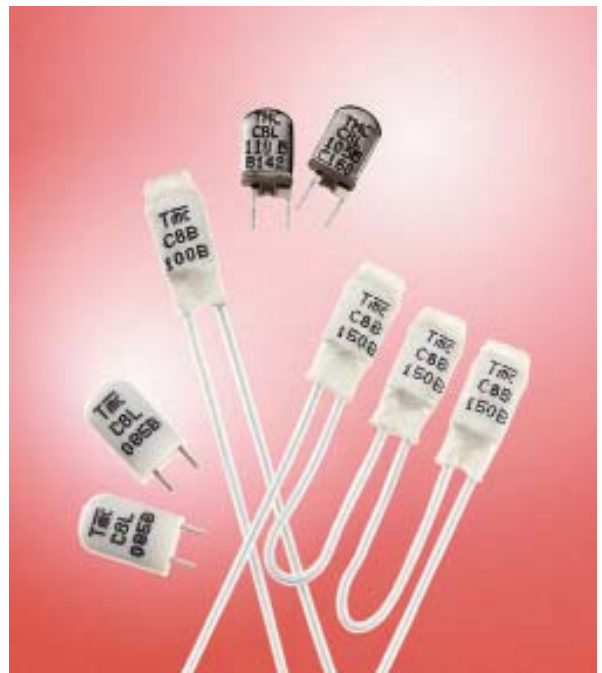# Overheating Protector
self resetting

Series **C8**

Features

- **High pressure resistance** when being mounted into the winding due to a curved steel case. Damage to the contact system is thus avoided.

- **Welded leads** guarantee reliable mechanical and stable thermal connections.

- **Magnetic and electric shielding.** The case is made of a ferromagnetic material (steel). This prevents the destruction of the contact system as the arc will not be deflected. Magnetic alternating fields do not cause any vibration noises.

- **Constant contact resistance** is guaranteed by the selection of optimal contact material, high contact pressure and sliding contacts.

- **Instantaneous shut-down and short contact bounces** due to a reliable operating bimetal snap-action disc.

- **Thermal sensitivity, independent from installation**, is provided by the symmetrical construction of the switch and by the excellent thermal conductivity of the metal case. Out of this results a short response time. As both sides are equally sensitive, installation is possible in any position.

- **Constant dimensions.** The overall size of the switch is independent from the lead diameter. The connection points for the leads are placed at the front side. A damage of the lead insulation, due to pressure in the winding, is therefore excluded.

- **Patented design**

- **Fully automatic production.** TMC thermal protectors are manufactured fully automatically from the first to the last step. The integrated 100% inspection ensures a permanent high quality level.

- **Custom-designed methods of connection** can be realized at low costs.

Description

TMC thermal protectors, series C8, are very efficient **miniature bimetal switches.** They have been designed to protect electrical equipment such as electric motors, transformers, etc. against overheating.

TMC thermal protectors meet all important european and northamerican regulations

Technical Data

Contact function	normally closed *(snap action)*
Contact rating	*10 000 cycles*
AC p. f. = 1,0	6,3 A / 250 V
AC p. f. = 0,6	6,3 A / 250 V
DC ohmic load	1,6 A / 24 V
DC ohmic load	1,25 A / 48 V
Voltage range	12 V - 500 V [4)]
Nominal temperature (NST)	50° C ... 160° C [1)] *(within 5 K - steps)*
Standard tolerance of NST	± 5 K [2)] *(letter B)*
Reset temperature (RST)	40 $\pm$ 15 K [5)] *(below NST)*
Ambient temperature	T 180
Contact resistance	< 50 m Ω
Contact bounce	< 1 ms
Dielectric strength	2 kV
Resistance to tracking	PTI 175 *only type W+L*
Enclosure rating	IP00
Preasure solidity	> 600 N

[1)] further tolerances $\pm$ 2,5 K *(= A)*, $\pm$ 7,5 K *(= C)*, $\pm$ 10 K *(= D)*
[2)] mind the current sensitivity
[4)] alternatives values on request
[5)] for Temperatures >/= 160° alternatives values on request
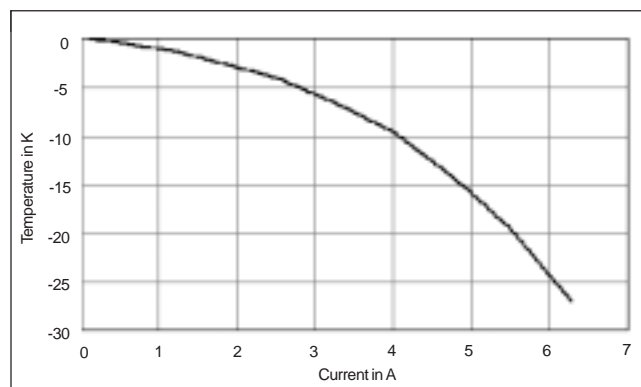Strain dependent on environment (according to EN60730):
mode of operation of type B: clean
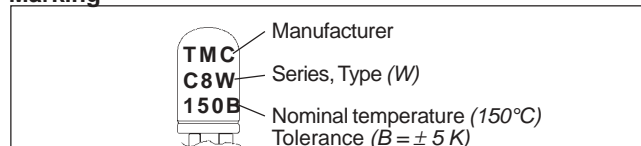mode of operation of type C: normal

Approvals

Valid for	Certification Institute	DIN	Approval Number
Europe	VDE	EN 60730	40024280
USA	UL	UL 60730	E326354
Canada	UL	CS22.2	E173279
China	CQC		09002028352

Performance - curve (in circulating air)

Marking

TMC — Manufacturer
C8W — Series, Type *(W)*
150B — Nominal temperature *(150°C)*
Tolerance *(B = $\pm$ 5 K)*

Types (Dimensions in mm)

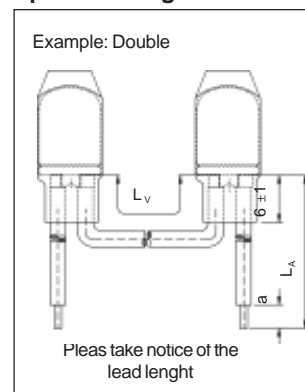| C8W switch not insulated	C8B switch insulated
Leads: stranded or solid	Leads: stranded or solid
C8L switch not insulated	C8L switch insulated
Connectors: Pin	Connectors: Pin
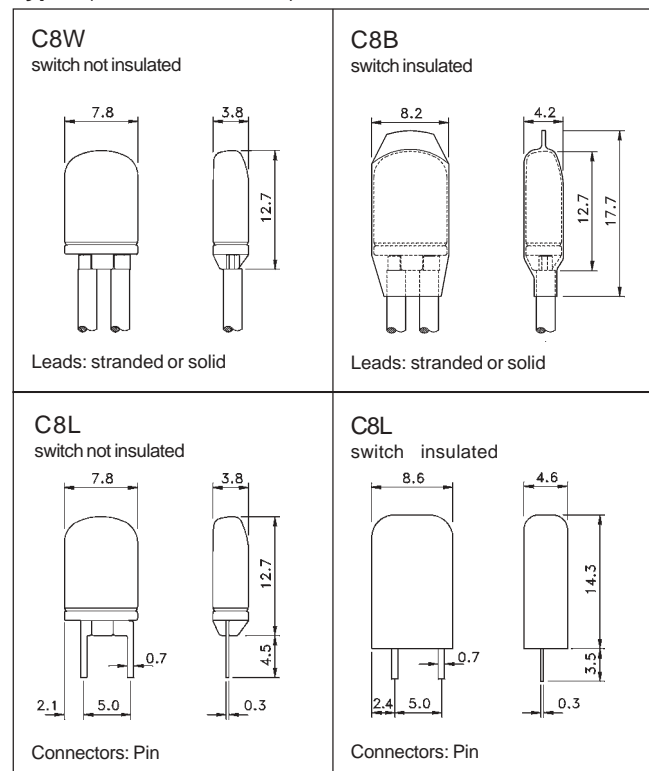
Standard leads: Stranded wires 0,50 mm², 100 or 300 mm long,
Isolation Class B: colour yellow
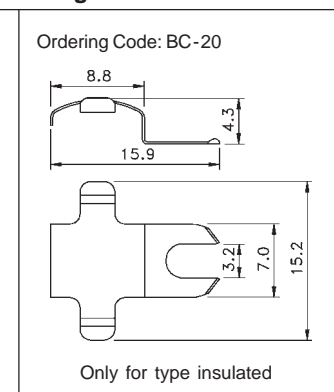Isolation Class F and H: Colour white
Stripped 5 mm

Other leads, stripping, colours and multiple wiring (double, triple or others) on request.

Impregnation: The protector can be installed before impregnation and baking of the winding at ambient atmosphere. For vacuum impregnation on request.
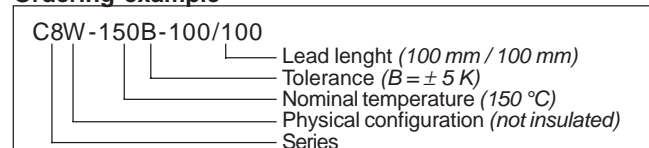
Special wiring

Example: Double

Pleas take notice of the lead lenght

Fixing

Ordering Code: BC-20

Only for type insulated

Ordering example

C8W - 150B - 100/100
— Lead lenght *(100 mm / 100 mm)*
— Tolerance *(B = $\pm$ 5 K)*
— Nominal temperature *(150 °C)*
— Physical configuration *(not insulated)*
— Series

We reserve the right to modify specification and dimensions. Regarding the information of this brochure there can't lay claim of liability or to acceptance guarantee.
This new data sheet obsoletes all previous issues.
Stand 12/15