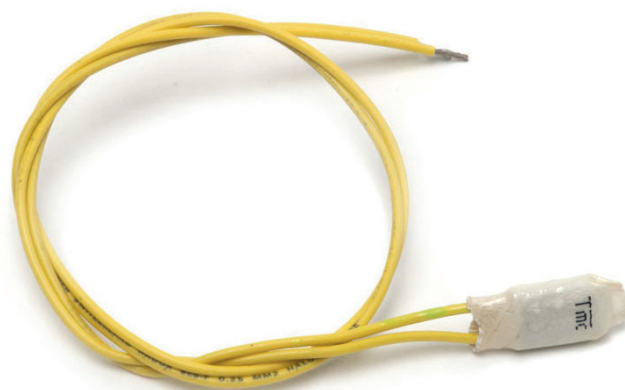


# Thermo protector C4

# BEVI

**The Thermo Protector C4 with breaking function comprises a bimetallic construction intended to serve as a temperature protection in windings of smaller electric motors, generators, transformers, etc. Thanks to its compact design, the sensor is easy to mount, even in tight, restricted winding environments. Also available as a triple version and for circuit board applications.**

- Nominal current 6.3A, max current 16A (measured at 250Vac)
- Insulation 2 kV, standard items adapted for vacuum impregnating
- Built for temperatures from 50°C to 160°C, as standard temperature tolerance +/- 5 °C
- Tested for voltage 12Vdc – 500Vac
- UL, VDE and CQC approved depending on selected wiring



## Product information

Thermo Protector C4 with breaking function consists of a bimetallic construction mounted in a compact metal housing to attain a highly qualitative safe and durable temperature protection. The Thermo Protector C4 is built to break temperatures from 50°C till 180°C.

## Typical applications

A component originally designed for temperature protection in windings in electric motors, generators and transformers. Thermo Protector C4 is also suitable for use in other contexts where a compact and mechanically durable component is required with a circuit-breaking function that can instantaneously and safely break a current.

## Properties

- Very high resistance to mechanical stress
- Compact design
- Very good magnetic and electrical shielding
- Instantaneous breaking and very short time for contact bounces
- Automatically returns to closed connection once the normal working temperature has been reached after disruption
- Current insensitive for currents up to nominal currents (see technical data)
- Can be modified for various mounting alternatives (wiring, for circuit board assembly, insulation in various executions, housings without insulation)
- Single version as stock items (see item list)
- UL, CS, VDE and CQC approved as shown in technical data
- Welded wires guarantee safe connection, electrically, mechanically and thermally
- Very good magnetic and electrical shielding thanks to a ferromagnetic steel housing
- Constant connection resistance guaranteed by optimal choice of material, high contact press and a sliding motion when breaking and closing down
- Excellent thermal response time with the same characteristics from both sides
- Very high resistance to mechanical stress thanks to a rounded steel housing specially developed for function at electric motor coil ends
- Wire placement ensures that the wire area does not affect the component's thickness
- Fully automatic production with integrated 100% test in multiple steps

## Description/Function

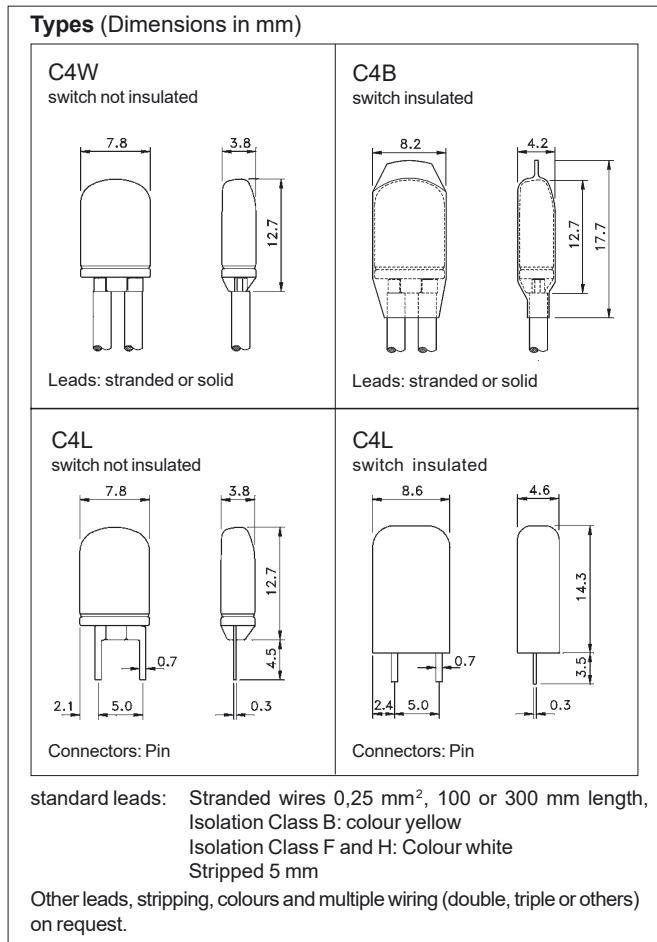
Thermo Protector C4 is a very compact bimetallic switch that with very little self-heating attains nominal current (see technical data). The following points show how it is at the top in terms of construction and functionality when compared to competitors. All of our standard items are adapted for vacuum impregnating.

## Colour/Connection

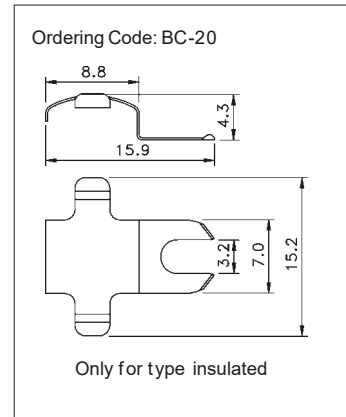
The component has no colour code but every Thermo Protector is stamped with its variant code, specific breaking temperature and temperature tolerance. See technical data.

## Dimensioner

Dimensions for the relevant versions are extracted directly from the manufacturer's data sheet in English.



**Basic insulation:** The insulation has to be ensured in connection



## Packaging

- Standard items sold individually (see item list)
- For other versions request MOQ
- For mounting plate in steel request MOQ

## Tekchnical data

Direct extract from the manufacturer's data sheet in English.

Technical Data	
Contact function	normally closed (snap action)
Contact rating	10 000 cycles
AC p. f. = 1,0	2,5 A / 250 V
AC p. f. = 0,6	1,6 A / 250 V
AC p. f. = 0,6	0,5 A / 500 V <sup>3)</sup>
DC ohmic load	1,6 A / 24 V
DC ohmic load	1,25 A / 48 V
max. current *	6,3 A / 250 V <sub>AC</sub> 3.000 Zyk.
Voltage range	12 V - 500 V <sup>4)</sup>
Nominal temperature (NST)	50° C...180° C <sup>1)</sup> (within 5 K - steps)
Standard tolerance of NST	± 5 K <sup>2)</sup> (letter B)
Reset temperature (RST)	40 ± 15 K <sup>5)</sup> (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 phy. config. W and L)
Protection class	I
Enclosure rating	IP00
Pressure solidity	> 600 N

<sup>1)</sup> approved values: 50...180°C (VDE)

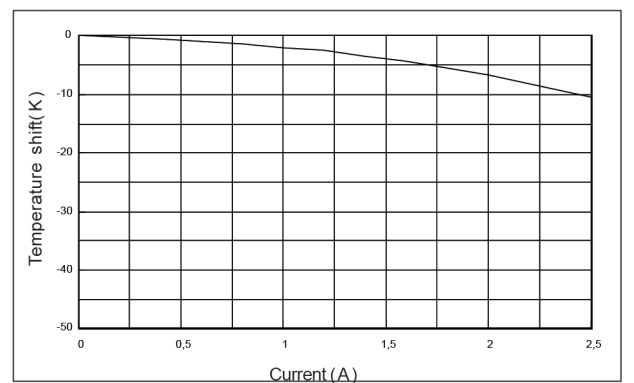
<sup>2)</sup> further tolerances ± 2,5 K (= A), ± 7,5 K (= C), ± 10 K (= D)

<sup>3)</sup> measure on TMC test-facility

<sup>4)</sup> alternatives values on request

<sup>5)</sup> for temperatures >=160°C alternative values on request

Performance - Curve



## Approvals

Valid for	Certification institute	DIN	Approval Number
Europe	VDE	EN 60730	40024298
USA	UL	UL 60730	E326354
Canada	UL	CS22.2	E173279
China	CQC		09002028341

# Thermo protector C4



Item number	Description	Version	Wire length (ca mm)		Breaking temp °C	Temp.tolerance °C
			Connection	Between thermal c.		
125909	Termok.C4B-80B 300/300 mm	C4B	300		80	+/-5
125910	Termok.C4B-100B 300/300 mm	C4B	300		100	+/-5
125911	Termok.C4B-110B 300/300 mm	C4B	300		110	+/-5
125912	Termok.C4B-120B 300/300 mm	C4B	300		120	+/-5
125913	Termok.C4B-125B 300/300 mm	C4B	300		125	+/-5
125914	Termok.C4B-130B 400/400 mm	C4B	400		130	+/-5
125915	Termok.C4B-140B 300/300 mm	C4B	300		140	+/-5
125916	Termok.C4B-150B 300/300 mm	C4B	300		150	+/-5

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Product information for which BEVI AB bears no responsibility is provided by the manufacturer

## Contact BEVI

Contact details for all countries is continuously updated on our website. Visit [www.bevi.com](http://www.bevi.com)

**BEVI AB (Headquarters)**  
Blomstermåla  
Tel. +46-499-271 00  
[info@bevi.se](mailto:info@bevi.se)  
[www.bevi.se](http://www.bevi.se)

