

Thermal Protector BW-B Series



- **Normally Close or Normally Open**
- **Very small, compact design**
- **Not sensitive to current**
- **Plastic or Metal Case**
- **Suitable for vacuum impregnation**

Applications

Over temperature protection in small electrical appliances, as winding protection, in transformers, electric motors, electromagnetic coils, and thermal protection in small electrical appliances.

Function

The temperature switches of the BW-B series are not sensitive to current.

The detection of the temperature carried out by means of a bimetal disc.

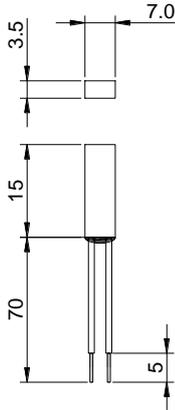
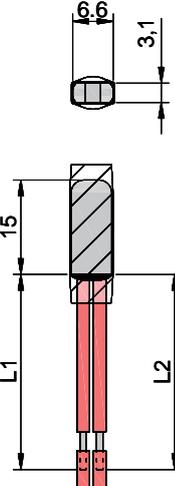
The BW-B can be designed as normally closed (NC) or normally open (NO).

After cooling down and reaching the switchback temperature of the bimetal disc, the temperature switch automatically switches back to its original position. The BW-B series is suitable for common vacuum impregnation processes.

Technical Data

Function	Normally closed (NC)	Normally open (NO)
Nominal switching temperature in 5K steps	45°C ... 160°C	45°C ... 160°C
Tolerance (Standard)	± 5K	± 5K
Reset temperature	See table below	See table below
Cycles at AC 250V / 6.0A	6.000	6.000
Cycles at AC 250V / 5.0A	10.000	10.000
Cycles at AC 115V / 8.0A	10.000	10.000
Cycles at DC 24V / 6.0A	10.000	10.000
Contact resistance	< 50mΩ	< 50mΩ
Insulation voltage	1.5 kV	1.5 kV
Lead wire length (Standard)	70 ± 5mm	70 ± 5mm
recognized standards	VDE EN 60730-2-9 UL 60730-2-9 UL 60730-2-2 CQC IEC 60730-1	UL 60730-2-9 UL 60730-2-2

Available designs

Type	Model	Illustration	Dimensions (mm)	Description
BW-B	P			Plastic case >100 N pressure resistance VDE 130°C
BW-B	M			Metal case with isolation sleeve >200 N pressure resistance

Available switching & reset temperatures

Switching temp.	Reset temp.
45°C ± 5K	≥ 33°C
50°C ± 5K	≥ 35°C
55°C ± 5K	42°C ± 6K
60°C ± 5K	45°C ± 8K
65°C ± 5K	48°C ± 10K
70°C ± 5K	50°C ± 12K
75°C ± 5K	53°C ± 14K
80°C ± 5K	55°C ± 15K
85°C ± 5K	60°C ± 15K
90°C ± 5K	65°C ± 15K
95°C ± 5K	70°C ± 15K
100°C ± 5K	70°C ± 15K

Switching temp.	Reset temp.
105°C ± 5K	75°C ± 15K
110°C ± 5K	75°C ± 15K
115°C ± 5K	80°C ± 15K
120°C ± 5K	85°C ± 15K
125°C ± 5K	85°C ± 15K
130°C ± 5K	90°C ± 15K
135°C ± 5K	95°C ± 15K
140°C ± 5K	100°C ± 15K
145°C ± 5K	100°C ± 15K
150°C ± 5K	105°C ± 15K
155°C ± 5K	110°C ± 15K
160°C ± 5K	115°C ± 15K

Order Code

	BW-B	C	M	160	05	70-5/70-5
Type: BW-B						
Function: C = Normally Close (NC) O = Normally Open (NO)						
Model: P = Plastic case (max. 155°C) M = Metal case						
Switching temperature: 45°C ~ 160°C in 5K steps						
Tolerance: 05 (± 5K)						
Lead wire length: Standard = 70mm Stripped & Tinned = 5mm						

Example: BW-BCM.160.05.70-5/70-5

Available wire / lead wire specifications

Insulation material	Temperature max.	Size	UL-Style
XLPE	125°C	AWG 22	3266
Silicone	200°C	AWG 20	3135

The standard lead wire length is 70mm, 5mm are stripped & tinned.

Customized lead wires are available on request.

Standard wire up to 125°C is UL3266 in AWG22. For temperatures ≥130°C is used UL3135 in AWG22.