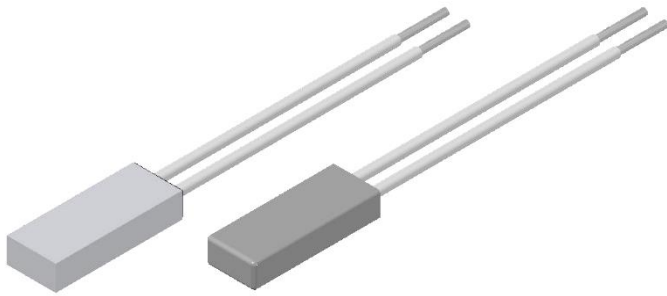


## Thermal Protector BW-E Series



- Normally open or normally closed
- Very small and compact design
- Short response time
- Customization
- Protection against overload
- Protection against over temperature
- Suitable for impregnation process

### Application

Overload & over temperature in windings, transformers, electric motors, electromagnetic coils and thermal protection of small electrical devices.

### Function

The temperature switches of the BW-E series react to overload and over temperature. The temperature recorded by using a bimetal snap disk. The detection of overloads is also carried out by the bimetal snap-action disc, which, due to its very small design, has a current flowing through it. If the flowing current is permanently above the rated current, self-heating takes place in the switch housing, which can trigger the switch. The BW-E series can be designed as normally closed (NC) or normally open (NO). After the bimetal disc has cooled down and the reset temperature has been reached, the temperature switch automatically switches back to its starting position. (automatic reset).

### Technical data

Function	Normally closed (NC)	Normally open (NO)
Nominal switching temperature in 5K steps	45°C ~ 160°C	45°C ~ 160°C
Tolerance	± 5K	± 5K
Switching capacity AC	≥6.000 cycles at AC 250V / 2,0A	≥6.000 cycles at AC 250V / 2,0A
Switching capacity DC	≥5.000 cycles at DC 24V / 3,0A	≥5.000 cycles at DC 24V / 3,0A
min. current	50mA	50mA
Contact resistance	≤ 50mΩ	≤ 50mΩ
Dielectric strength	1,5kV / 1 min.	1,5kV / 1 min.
Wire length (standard)	70 ± 5mm / 5mm semi-strip	70 ± 5mm / 5mm semi-strip
Recognized standards	VDE, UL, cUL, CQC	

### Available switching & reset temperatures

Switching-temperature	Reset-temperature	Switching-temperature	Reset-temperature
45°C ± 5 K	≥33°C	105°C ± 5 K	75°C ± 15 K
50°C ± 5 K	≥35°C	110°C ± 5 K	75°C ± 15 K
55°C ± 5 K	42°C ± 6 K	115°C ± 5 K	80°C ± 15 K
60°C ± 5 K	45°C ± 8 K	120°C ± 5 K	85°C ± 15 K
65°C ± 5 K	48°C ± 10 K	125°C ± 5 K	85°C ± 15 K
70°C ± 5 K	50°C ± 12 K	130°C ± 5 K	90°C ± 15 K
75°C ± 5 K	53°C ± 14 K	135°C ± 5 K	95°C ± 15 K
80°C ± 5 K	55°C ± 15 K	140°C ± 5 K	100°C ± 15 K
85°C ± 5 K	60°C ± 15 K	145°C ± 5 K	100°C ± 15 K
90°C ± 5 K	65°C ± 15 K	150°C ± 5 K	105°C ± 15 K
95°C ± 5 K	70°C ± 15 K	155°C ± 5 K	110°C ± 15 K
100°C ± 5 K	70°C ± 15 K	160°C ± 5 K	115°C ± 15 K

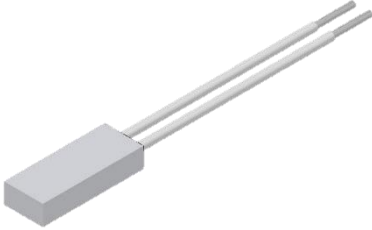
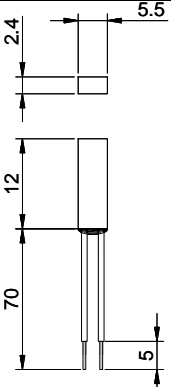
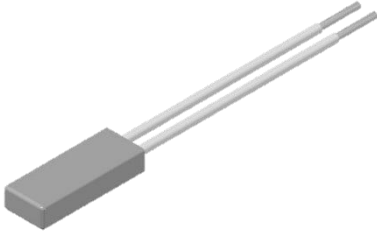
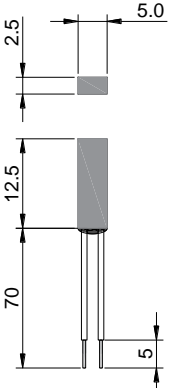
### Standard wires

Isolations-material	Temperature max.	Size	UL-Style
XLPE	150°C	AWG 22	3398
Silikone	200°C	AWG 22	3135

The standard wire length is 70mm of which 5mm semi-stripped.

Special lengths are available on request.

## Variants

Series	Model	Illustration	Dimensions ( mm )	Description
BW-E	P			Plastic case
BW-E	M			Metal case

## Oder code

<b>Series:</b> BW-E	<b>BW-E</b>	<b>C</b>	<b>P</b>	<b>120</b>	<b>05</b>	<b>70-5/70-5</b>
<b>Function:</b> C = Normally closed (NC) O = Normally open (NO)						
<b>Model:</b> P = Plastic case M = Metal case						
<b>Nominal switching temperature:</b> 45°C ~ 160°C in 5K steps						
<b>Tolerance:</b> 05 (± 5K)						
<b>Wire length:</b> Standard = 70mm Semi-strip = 5mm						

**Example:** BW-ECP.120.05.70-5/70-5