

- **Very high cut off temperature (max. 450°C)**
- **Ceramic housing**
- **Good heat transfer due to homogeneous construction**
- **High temperature sensitivity**
- **Fast response time**
- **High contact rating**

The TB 97 is based on reliable bimetal snap-disc technology and is specially designed for applications where high temperature is needed, with a maximum switching temperature of 450°C.

Even if the operating temperature is more than 400°C, the operating temperature is within a tolerance of ± 5%. When temperature rises and will reach the fixed operating temperature, a contact system will open (NC) or close (NO) the electrical current circuit. After cooling down, the contact system will return to its original position (automatically reset function). Within its nominal power condition, the limiter TB 97 works independent from any current supply.

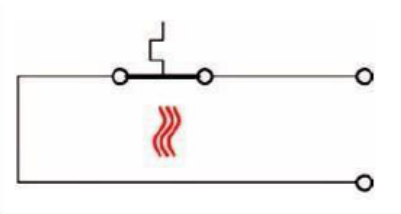
Typical applications:

- Electrical oven
- Heating elements
- Barbecue equipment
- Irons
- Industrial usage
- Welding machines
- Soldering machines

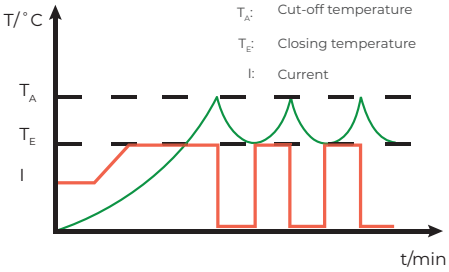
Technical Specifications		
Switching temperature	180°C - 450°C	180°C - 350°C
Power capacity	10A (230VAC); 6A (400VAC)	13A (120VAC)
Dielectric strenght	3.000 V	2.500 V
Switching cycles	10.000	10.000
Contact resistance	≤ 50 mΩ	≤ 50 mΩ
T off	in 5 Kelvin steps, ±5%, Differential 50...200°K, ±20k, depending on T off, special hysteresis on request	
Indication of purpose	operating temperature limiter	
Device type	Electrical control device to be built into an end product	
Features of automatic action	1B according to VDE standard 60730	
Pollution degree	2	
Max. Ambient temperature	400°C	
Dimensions	L 27,5mm x B15,5mm x T 12,5mm	
Approvals	Standard 60730-1; 2 - 9, VDE certificate 131955, conform to RoHS/REACH UL File E96862 - Switching temperature limited to 180 °C - 350 °C	

HIGH TEMPERATURE LIMITER TB97/98

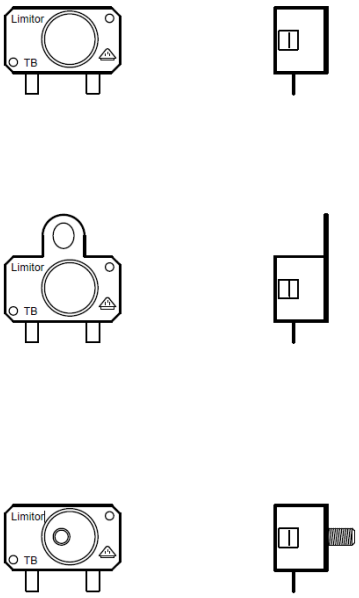
Circuit diagram



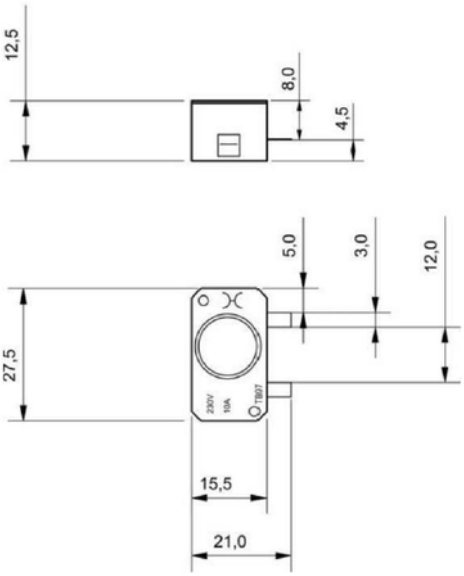
Functional diagram



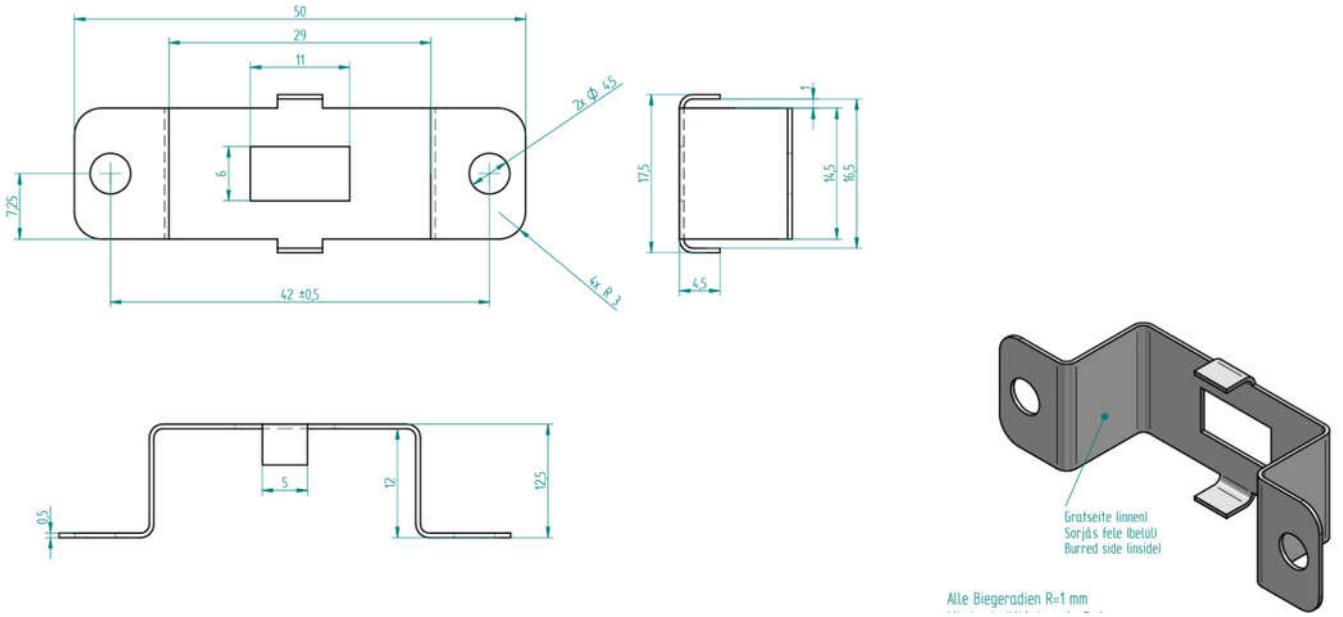
Attachment types



Dimension drawing (TB97 standard)



Accessories - Mounting bracket 506010



Ordering information

(Please use the characters in the chart below to construct your product code.)

Sample Code: TB97 - 200 - 5 - 65 - 1 - 200 - 10HA

Type/Function

TB	
97	normally closed
98	normally open

Switching Temp

in °C

Tolerance in %

5	5 % (standard)
10	10 %

Connection type

see table below
15 = standard

Attachment type

1	without (standard)
3	fixed flange
4	screw M4 x 6
5	screw M5 x 6

Lead wire length in mm

Only with connection option "welded strands"
200 mm
500 mm
700 mm
Other lengths upon request

Lead specification

Only with connection option "welded strands"

10 mm	(standard)	HA	Half stripped (standard)
Other lengths upon request		A	Fully stripped

Custom options on request.

Connection configuration

Connection orientation

Connection type

	1	2	3	4	5	6	7
Blank contact 1					Standard		
FS 6,3 x 0.8 straight 2							
FS 6,3 x 8,8 90° angle 3							
SA M3 straight 4							
SA M3 90° angle 5							
welded strands 6							

Connection type	Temperature limit
Blank contact (1)	to 450 °C
Flat connector (2, 3)	to 350 °C
Screw connector (4, 5)	to 350 °C
Welded strands (6)	to 450 °C