

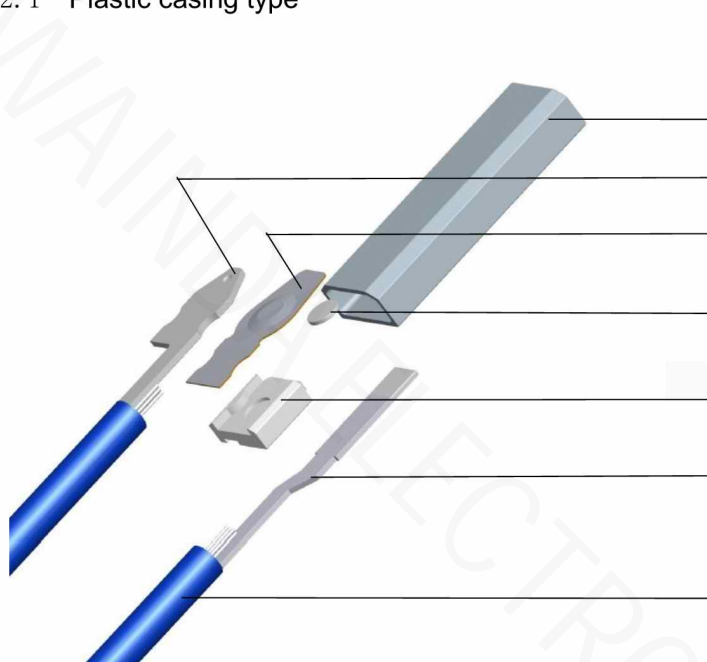
Technical Specification Of TB02 Thermal Protector

1 Usage

TB02 thermal protector possess the benefits of miniature size、shell insulation、sensitive in action、long life etc. Widely used in electric power points、electrical appliances、fluorescent ballasts、transformers、automobile motor、integrated circuit and general electric equipment of dual hot flow protection function.

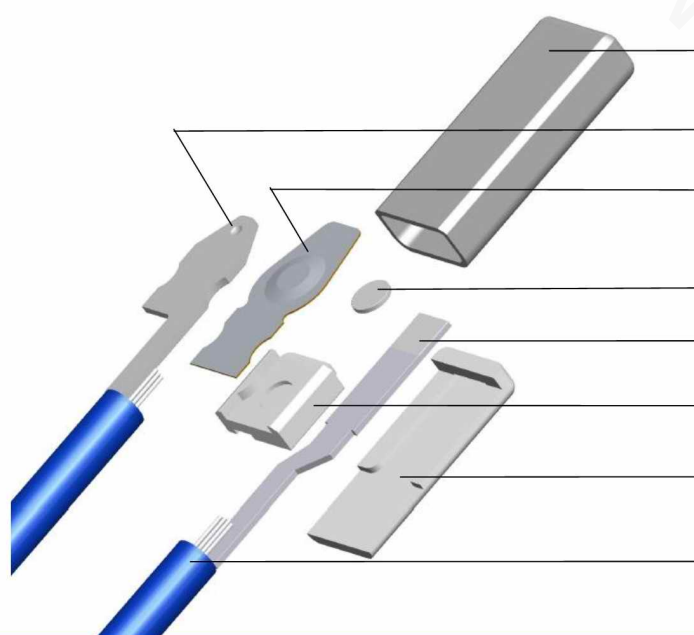
2 Appearance and structure:

2.1 Plastic casing type



Name of parts	Name of material
Plastic casing	PBT
Dynamic contact pieces	SPCC
Dual metal	Thermomet
Dynamic contact	AgNi/BZn
Fixed block pieces	PBT
Static contact	AgNi/BZ
Lead wire (30-125℃)	22# 3266
(130-155℃)	24# 3135

2.2 Steel casing type



Ironclad	SPCC
Dynamic contact pieces	SPCC
Dual metal	Thermomet
Dynamic contact	AgNi/BZ
Static contact	AgNi/BZ
Fixed block pieces	PBT
Insulating spacer	PBT
Lead wire (30-125℃)	22# 3266
(130-155℃)	24# 3135

Plastic case size: Length 15 * Width 5.4 * High 2.4mm Steel shell size: Length 11.5 * Width 5.0 * High 2.4mm



3 Property

3.1 Voted current

4A/DC12V、3A/DC24V、3A/AC115V、2A/AC250V.

3.2 Disconnect temperature: 30°C~155°C ,reset temperature 20°C~110°C.

3.3: Ant-tension test:Product test pins should with no fault, sliding out when bearing $\geq 20N$.

3.4 Insulation voltage:

a. Products in the lead when disconnect between AC660V shall withstand, 1min without breakdown flashover phenomenon;

b. Product leads and insulated shell, between AC1800V can withstand 1S without breakdown flashover phenomenon.

3.5 Insulation resistance: under normal conditions, fuses and insulation shell insulation resistance in 100M Ω above. (used forDC500V meter)

3.6 Contact resistance:Pproduct contact resistance shall not be more than 50m Ω .

3.7 High temperature resistant test: The action temperaturethe should keep in 96h in temperature of 50 ° c rated movements in air environment.

3.8 Low temperature resistance test: product should keep in 96h when in air environment - 40 ° c

3.9 Ant-vibration test: thermal protectors shall withstand amplitude, frequency changing 1.5 mm 10 ~ 55Hz, scanning change cycle 3-5 times/min, vibration directionX,Y,Z, in each direction, each successive 2h vibration.

3.10 Drop test: products high free fall from 0.7 m.

3.11 Compression test: products shall stand 1min in100N static pressure.

3.7,3.8,3.9,3.10,3.11should meet the following requirements:

a.Disconnect temperature charges in the inditial value should be within +7°C

b.contact resistance should be below 100m Ω ;

c.appearance should be no bovious deformation;

d.wires should without cracking damage.

4 Life

Products in the rated voltage, current, power factor for 0.7 conditions, plus 6,000 times that the action of heat, should satisfy as below:

a. Disconnect temperature changes in the initial value should be within $\pm 5^\circ c$,

b. Ccontact resistance should be belowin100m Ω
continue experiment in 10000times after action.

5 Other items:

5.1 Disconnect the temperature detection 5.1 heating rate should be controlled for 1 ° c / 1min, Use process cannot bear strong impact and stress.

5.2 Instructions for model and specification :

5.2.1 normally closed

TB02-BB8D——Plastic casing protector model

TB02-BB1D——Steel casing protector model

XXX°C——Disconnect temperature

XXX°C——Disconnect temperature



5.2.2 normally open

TB02-KA8D—Plastic casing protector model

TB02-KA1D—Steel casing protector model

XXX°C—Temperature protection device closure

XXX°C—Temperature protection device closure

6 Certification:

VDE Certification: 40016121

CB Certification: CN5785

CQC Certification: CQC05002013372

UL Certification: E305764

ISO9001 Certification: 0105Q1274ROS/3200

7 This standard should separately conclude when not related to other matters or customer requirements.

7.1 For Normal closed type

NO	Disconnect	Reset-connect	NO	Disconnect	Reset-connect
30	30 ± 3°C	≥20°C	95	95 ± 5°C	70 ± 15°C
35	35 ± 3.5°C	≥25°C	100	100 ± 5°C	70 ± 15°C
40	40 ± 4°C	≥30°C	105	105 ± 5°C	75 ± 15°C
45	45 ± 4.5°C	≥33°C	110	110 ± 5°C	75 ± 15°C
50	50 ± 5°C	≥35°C	115	115 ± 5°C	80 ± 15°C
55	55 ± 5°C	42 ± 6°C	120	120 ± 5°C	85 ± 15°C
60	60 ± 5°C	45 ± 8°C	125	125 ± 5°C	85 ± 15°C
65	65 ± 5°C	48 ± 10°C	130	130 ± 5°C	90 ± 15°C
70	70 ± 5°C	50 ± 12°C	135	135 ± 5°C	95 ± 15°C
75	75 ± 5°C	53 ± 14°C	140	140 ± 5°C	100 ± 15°C
80	80 ± 5°C	55 ± 15°C	145	145 ± 5°C	100 ± 15°C
85	85 ± 5°C	60 ± 15°C	150	150 ± 5°C	105 ± 15°C
90	90 ± 5°C	65 ± 15°C	155	155 ± 5°C	110 ± 15°C

7.1 For Normal open type

NO	Connect	Disconnect	NO	connect	Disconnect
30	30 ± 3°C	≥20°C	95	95 ± 5°C	70 ± 15°C
35	35 ± 3.5°C	≥25°C	100	100 ± 5°C	70 ± 15°C
40	40 ± 4°C	≥30°C	105	105 ± 5°C	75 ± 15°C
45	45 ± 4.5°C	≥33°C	110	110 ± 5°C	75 ± 15°C
50	50 ± 5°C	≥35°C	115	115 ± 5°C	80 ± 15°C
55	55 ± 5°C	42 ± 6°C	120	120 ± 5°C	85 ± 15°C
60	60 ± 5°C	45 ± 8°C	125	125 ± 5°C	85 ± 15°C
65	65 ± 5°C	48 ± 10°C	130	130 ± 5°C	90 ± 15°C
70	70 ± 5°C	50 ± 12°C	135	135 ± 5°C	95 ± 15°C
75	75 ± 5°C	53 ± 14°C	140	140 ± 5°C	100 ± 15°C
80	80 ± 5°C	55 ± 15°C	145	145 ± 5°C	100 ± 15°C
85	85 ± 5°C	60 ± 15°C	150	150 ± 5°C	105 ± 15°C
90	90 ± 5°C	65 ± 15°C	155	155 ± 5°C	110 ± 15°C



8 The electrical diagram

TB02温度-电流曲线图

