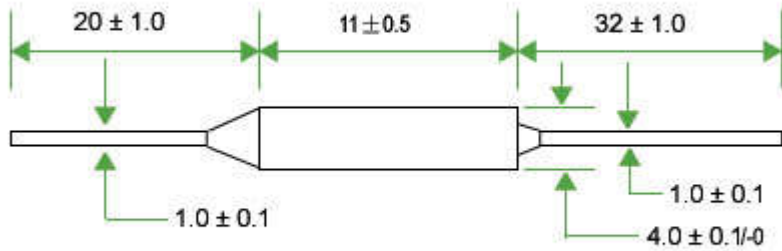


# THERMAL FUSE

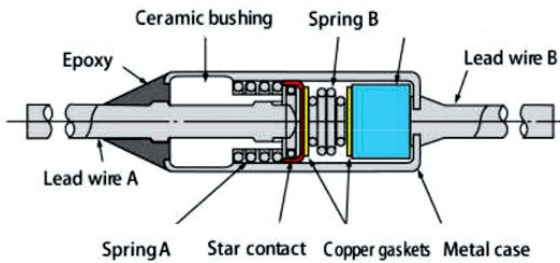


Size (mm)



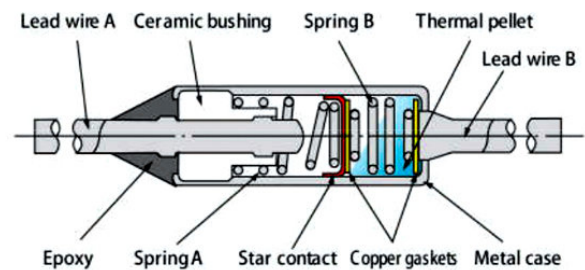
Working principle

Before the fuse



There is movable electrode, spring and thermal frit installed inside the RY-type thermal fuse. The spring B is installed under compressed condition, the spring force of which can hold the coppering gasket to keep the movable electrode well connected with the lead A. In normal condition, the current leads A, the movable electrode, the metal shell and wire B is conductive with each other.

After fusing



When the ambient temperature exceeds the operating temperature, the lead, the heat incoming from the lead and metal shell will melt thermal frit into liquid. At that time, the spring A and the spring B will pop up and stretch, the elastic force of the spring A will push the movable electrode toward the spring B-side, so as to cut off contact with the leads A to cut off the circuit.

Technical parameter list

Symbol	Rated functioning temp (Tf)	Fusing-off temperature	Holding temperature (Th)	Maximum temp. limit (Tm)	Rated voltage (Ur)	Rated current (Ir)
BT072/16a	72℃	69±2℃	42℃	180℃	110V/250V	16A
BT77B/16a	77℃	74±2℃	47℃	180℃		
BT84B/16a	84℃	81±2℃	54℃	180℃		
BT92B/16a	92℃	89±2℃	62℃	180℃		
BT98B/16a	98℃	95±2℃	68℃	180℃		
BT110B/16a	110℃	107±2℃	80℃	200℃		
BT115B/16a	115℃	112±2℃	85℃	200℃		
BT117B/16a	117℃	114±2℃	85℃	200℃		
BT121B/16a	121℃	118±2℃	91℃	200℃		
BT130B/16a	130℃	127±2℃	100℃	250℃		
BT139/16a	139℃	136±2℃	109℃	250℃		
BT139B/16a	139℃	136±2℃	109℃	250℃		
BT141B/16a	141℃	138±2℃	109℃	250℃		
BT150B/16a	150℃	147±2℃	120℃	280℃		
BT157B/16a	157℃	154±2℃	127℃	280℃		
BT169B/16a	169℃	166±2℃	139℃	280℃		
BT172/16a	172℃	169±2℃	139℃	280℃		
BT185/16a	185℃	182±2℃	155℃	280℃		
BT192/16a	192℃	189±2℃	162℃	280℃		
BT216/16a	216℃	213±2℃	176℃	450℃		
BT227/16a	227℃	224±2℃	187℃	450℃		
BT230/16a	230℃	227±2℃	187℃	450℃		
BT240/16a	240℃	237±2℃	200℃	450℃		
BT250/16a	250℃	247±2℃	210℃	450℃		
BT260/16a	260℃	257±2℃	220℃	450℃		

Use instructions:

NO.1 Thermal fuse in the use of TF (rated operating temperature), can be in time to avoid the risk of the circuit to avoid dangerous temperature, is a non - reset device.

NO.2 Selection must pass the test to select the appropriate model, the replacement should also choose the same type of product.

NO.3 Thermal fuse can be used for soldering, welding, pressure connection connection, when the bending pin requires a tool clamping operation, epoxy resin sealing end, from the root of 8mm bending. At the other end not from roots 4mm bend, bend, tools can be sandwiched between shell and sealing glue, pin in the installation can not be damaged, gap, sharp bending angle, burning.

NO.4 Shell and sealing glue can not be damaged, burning or overheating. Using a hot-air gun shrink tube should pay attention to, not to the direction of the shell blowing, should be within 2 seconds to complete the operation. To avoid the over temperature leads to fuse.

NO.5 Do not reverse the Thermal fuse, for example, the pin relative to the shell.

NO.6 The connection with the lead wire must be strong, in order to ensure that the lowest resistance and avoid contact with high temperature.

NO.7 When using soldering or welding, at a distance of 10mm shell within 2 seconds to complete the operation, avoid overheating welding product damage.

NO.8 Design and installation of the Thermal fuse position should ensure that the position in the long-term continuous working environment temperature is not more than  $T_h$  to maintain the temperature requirements, and will lead to the Thermal fuse service life can not meet the requirements.

NO.9 Machining process or installation can not lead to the deformation of the external force, and vice versa will affect the performance of the action, resulting in the product is not fused.

NO.10 The product should be stored in dry and ventilated place, unpack the product when not in use should be sealed storage, avoid discoloration products.

## Term interpretation

Rated functioning temperature (Tf)	The temperature at which a Thermal Link changes its state of conductivity to open circuit detection current .The tolerance according to IEC60691 is from +0 to -10°C. (With japan Electrical Appliance and Material Law, on the other hand, they must function in the tolerance range of $\pm 7^{\circ}\text{C}$ ).
Fusing-off temperature:	The fusing-off temperature indicates value measured in silicon oil with a temperature increased by 0.5-1°C per minute and a detective current 10 mA or less.
Holding temperature (Th):	The maximum temperature at which a Thermal Link will not cause a change in state of conductivity to open circuit while conducting rated current for 168 hours. This rating is required by safety standards based on IEC60691.
Maximum temperature limit(TM):	The maximum temperature at which a Thermal Link can be maintained for 10 minutes without reclosing. This rating is required by safety standards based on IEC60691.
Rated current (I <sub>r</sub> ):	The allowable maximum current which a Thermal Link is able to carry.
Rated voltage (U <sub>r</sub> ):	The allowable maximum voltage which a Thermal Link is able to be applied.