

Motor Fans & Accessories

Bi-Metal Thermostats

GENERAL INFORMATION

Bi-Metal Thermostats are current sensitive thermal protection for coils and windings. The main features are:

- Temperature & Current sensitive
- Small size
- High switching capacity
- Minimal contact resistance
- Good pressure resistance
- Suitable for varied applications

These thermal cutouts operate by means of a thermally sensitive, bimetal snap-element which switches a double electrical contact when a preset temperature is reached. They can be designed for normally open or normally closed contacts. The electrical current being switched flows through the bimetal element, which therefore gives a combination of temperature and current sensitivity. Heat transfer occurs on all sides via convection, radiation or conduction in gaseous or solid media. When placed on a surface that is to be monitored, the Bi-Metal Detector conducts heat directly onto the bimetal element, allowing its use as a surface temperature cutout.

APPLICATIONS

Thermal protection plus temperature control of electrical machinery and equipment under certain circumstances, e.g.

- AC motors
- Generators
- Electromagnets
- Oil baths
- Accumulators
- Copiers
- Single phase motors
- Transformers
- Inverters
- Water boilers
- Hot air dryers
- Washing machines
- DC motors
- Coils
- Rectifiers
- Liquid pumps
- Electric ranges

TYPICAL VALUE

Type	T11	Stainless steel Housing	Max. load at cos = 1.0
Nominal Voltage	50/60 Hz 250V	Hard epoxy coating	500V 50-60Hz 3.5A
Normally closed contacts		Standard lead cross section .5mm ²	380V 50-60Hz 4.0A
Standard contact resistance	≤40mΩ	Current rating at cos 1.0 = 2.5A	250V 50-60Hz 6.3A
Temp range supplied	+50°C to +180°C	Current rating at cos 0.6 = 1.6A	110V 50-60Hz 10.0A
Max. permanent temperature of switch mechanism	+180°C	Standard temperature rating of connecting leads by insulation class and epoxy sealant (to VDE 0530) 200°C max. 10 hours 230°C max. 5 hours	60 V DC 1.0A
Vacuum tightness leak rate	0.133 to 0.0133 barcm ³ /sec		42 V DC 1.2A
			6.12.24V DC 1.5A