

Motor and Machine Protection

PTC – thermistor for windings control

Basic information:

PTC thermistors are ceramic semi-conductors which because of the very high positive Temperature Coefficient lend themselves to a variety of applications.

Applications:

Specially constructed versions of these products are available and this facility enables most applications to be catered for. Most typical application for PTC thermistors is to protect the windings of heavy duty motors and transformers.

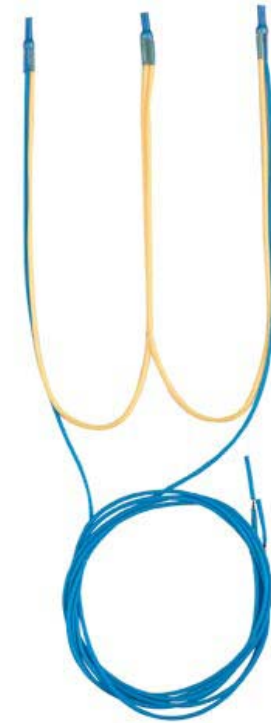
General function:

The PTC thermistor, for the thermal protection of electrical machines, is a temperature dependant component.

The rated operating temperature (ROT) corresponds to the curie point temperature of the ceramic. The resistance, of the PTC thermistor, rises very steeply with relatively small increases in temperature, thus triggering the switching function.

Advantages:

- Precise repeatability of the response point.
- Long hysteresis free switch cycle life.
- Extremely cost effective.
- Steep temperature-resistance curve characteristic allows for simple evaluation electronics.
- Current self-limiting.
- Light weight.
- Low thermal time constant.
- Extremely small designs are available.



PTC-screw-in-sensor and surface sensor

