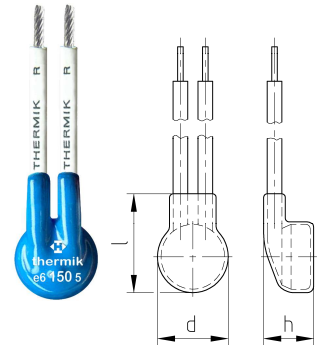


Information 501e

Thermal Protector Type e6

Anwendung:

Thermal Protectors (TP) of version e1 with normally closed contacts are standard versions, utilised for overheating protection of all kinds of electrical equipments or devices, e. g. for electric motors, heaters and transformers. These TP's characterize their ability to tolerate higher current load in spite of their small design. Further to this, they can be installed into the windings because they are pressure- and impregnation resistant.



Aufbau:

These switches are equipped with a high capacity contact mechanism, wherein the bimetallic disc can move freely, without the current flowing through it. An additional spring disc maintains constant contact pressure until reaching its switching temperature.

The version e6 has an epoxy coating for best thermal transfer to the housing. Therefore –when fitting – the base insulation of the switch is provided and does not need to be done by the customer. Onto the blue coloured insulation, the manufacturer logo, type, nominal switching temperature with its tolerance is marked.

Durchmesser d	10,5 mm
Bauhöhe h	6,5 mm
mittlere Abmaße	

Funktion:

If, in case of overheating, the rated switching temperature of the bimetallic disc is reached, it suddenly snaps over to open the contacts. After cooling down to the resetting temperature, the bimetallic disc resets and causes the contacts to reclose.

Merkmale:

Strong power density	: strong currents in small types of construction
Quick response sensitivity	: featured by small protector mass and the metal-housing
Excellent long term performance	: due to instantaneous switching, fine silver contacts, constant contact resistance and to electrically as well as mechanically unstrained bimetallic disc, reproducible switching temperature values
Very short bouncing times	: < 1 ms
Instantaneous switching	: with constant contact pressure over the whole temperature range
Temperature resistance	: by use of high temperature resistant materials and components

Technical data:

Contact type	NC (Normally Closed)		
Nominal switching temperature (NST)	70 °C – 160 °C		in steps of 5 K
Standard tolerance	± 5 K		
Resetting temperature (RST)	> 35°C		
Operating voltage AC / DC	100V up to 500 V AC / DC -- available, values on inquiry		
Rated voltage (at 50Hz – 60Hz)	250 V AC		
Rated current I _{NOM} (approved Values)	10.0A	cos φ = 1.0	10,000 switching cycles
	6.3A	cos φ = 0,6	10,000 switching cycles
Contact bounce time	< 1 ms		
Impregnation resistance	suitable		(acc. to Thermik-test)
Contact resistance	< 50 mΩ		with reference to MIL – STD. R 5757
Vibration proof at 10 60 Hz	100 m/s ²		
Pressure stability of housing	450 N		(acc. to Thermik-test)
Switch insulation	Epoxy coating		
Dielectric strength	1,450 V _{r.m.s.}		
Standard connection leads	multi stranded wire 0.5 mm ²		
Approvals acc. to design	VDE with reference to EN 60730 -1; EN 60730 -2-9		
	CB *) with reference to EN 60730 -1 (3 rd); EN 60730 -2-9 (2 nd)		


*) The "European Accreditation CB Scheme" Certificate, named CB- Certificate, covers almost all national approvals.

The data of this table refers to the standard version. For others - please inquire.

The Thermal-Protector e6 is available with white and yellow lead wires.

The min. order quantity is 5,000pcs. The e6 can only be ordered directly from Thermik.

Marking example:

Trade-mark	_____		
		thermik	
Type	_____	e6 125 5	_____ Rated switching temperature [°C] , Tolerance [K]

Ordering example:

		e6 . 125 . 05 . 0100 / 0100			
Type and version	_____	_____	_____	_____	_____
Rated switching temperature [°C]	_____	_____	_____	_____	_____
Tolerance [K]	_____	_____	_____	_____	_____
Lead length [mm]	_____	_____	_____	_____	_____

The indicated values in this data sheet can differ for special designs. We reserve the right to modify technical specifications without notice.

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