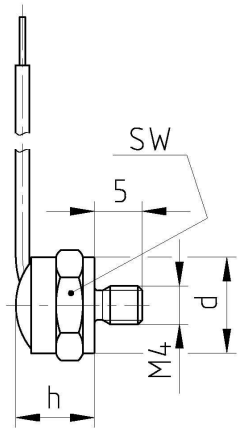
Information 406 e

Thermal Protectors Series 01
Types L01 / LK1 / L02

Application:

Thermal Protectors of Series 01 - Types L01 / LK1 (NC) and L02 (NO) are utilised for overheating protection of all kinds of electrical equipment or devices, whereat after overheating and subsequent cooling an automatic resetting is required. A mount-on housing with a M4-srew allows to attach these types e.g. in switch cupboards, on heat sinks or on motor casings. The LK1 is the preferred type for low switching temperatures.



Design:

The Thermal Protectors L01, LK1 and L02 are based on the well-proven mechanism of Thermik's Types C01, CK1 and C02.
These standard types are introduced into a housing with an M4-screw including an internal insulation between the switch and this housing.

Diameter **d** Wrench size	10.0 mm
Height **h**	8.3 mm
Screw / -length	M4 / 5 mm
dimensions (average)	

Operation:

If, in the case of overheating, the rated switching temperature of the bimetallic disc is reached, it suddenly snaps over and opens (L01 / LK1) or closes (L02) the contact. After cooling down beyond its resetting temperature, the bimetallic disc returns automatically to its initial position.

Features:

Specially flat design	:	to fit closely built-up circuits
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 unstressed bimetallic disc, reproducible switching temperature values
Instantaneous switching	:	with constant contact pressure over the whole temperature range
Very short bounce times	:	< 1 ms
Temperature resistance	:	by use of high temperature resistant materials and components

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thermik®
keeps temperatures under control

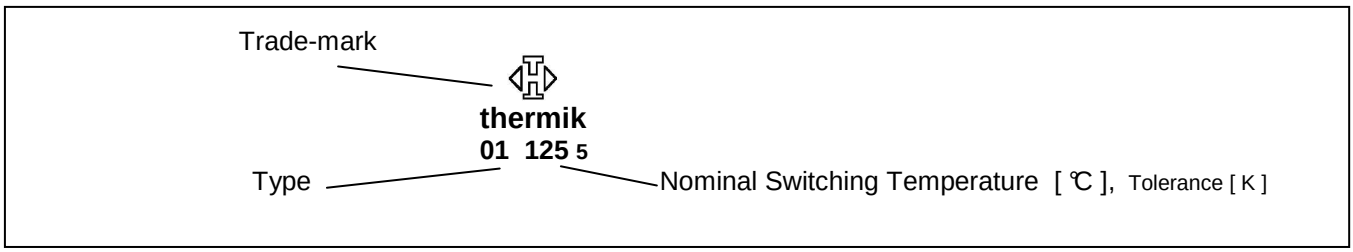
Technical Data - Series 01

Contact type	01 / K1 (NC- normally closed) / 02 (NO- normally open)
Nominal switching temperature (NST)	60 °C – 200 °C
Standard tolerance	± 5 K others on request
Resetting temperature (RST) Standard: Resetting temperature (RST UL:	RST = > 35°C (VDE) RST = NST – 35K ±15K
Operating voltage	....500 V AC; DC - available, values on inquiry
Rated voltage AC	250 V AC (VDE); 277 V (UL)
Rated current AC I_{NOM}	2.5 A cos φ = 1.0 10,000 switching cycles 1.6 A cos φ = 0.6 10,000 switching cycles 1.8 A cos φ = 0.4 – 0.5 10,000 switching cycles
Current sensitivity at I_{NOM}	No
Max. switching current at 250 V AC	6.3A cos φ = 1.0 3,000 switching cycles 7.5A cos φ = 1.0 300 switching cycles 7.2 A cos φ = 0.4 – 0.5 1,000 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/s²
Pressure stability of housing	450 N
Switch insulation (S01, SK1, S02)	Insulation cap: Mylar – Nomex® ® Trade-mark Du Pont
Dielectric strength of the insulation cap	2 $kV_{r.m.s.}$
Standard connection leads	multi stranded wire 0.25mm² or AWG 22
Approvals acc. to design and order	VDE with reference to EN 60730-1 -2-9; EN 60730-1 -2-3 CB *) with reference to EN 60730-1 -2-9; EN 60730-1 -2-3 UL with reference to UL 2111; UL 873 CSA with reference to C22.2-77 CQC with reference to GB 14536.1-1998; GB 14536.3-1996

**) *The* "European Accreditation CB Scheme" Certificate, named CB- Certificate, covers virtually the most national approbations.

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

Marking example of the insulation cap:



Ordering example: