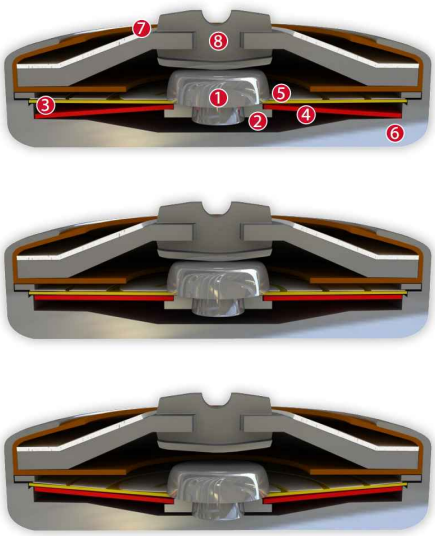
thermik®

DATASHEET

Thermal Protector CXO

Type series XO



Construction and function

Switchgear consisting of a movable silver contact (1), a contact bearing pin (2), a spring snap-in disc (3), a bimetallic disc (4) and a contact tongue (5) which is riveted into one another, undetachable and fixed in a positive lock and self-aligning between a conductive, heat transferring housing (6) and a contact cap (7) made of steel that is insulated from it, plus a stationary countercontact (8). At the same time, the switchgear is supported by the contact tongue (5) acting as a transfer element for electric current which is held between a supporting collar and a circumferential ring. As such, the switchgear underlying it, that is also stuck out from the movable contact (1), can continuously work (exposed) by mechanical loads without the contact pressure defined by the spring snap-in disc (3) diminishing. As soon as the bimetallic disc (4) reaches its rated switching temperature, it effectively springs against the throw force of the spring snap-in disc (3) into its inverted position. The contact is abruptly opened. The temperature will now fall. The bimetallic disc (4) will only snap back upon reaching a defined spring back temperature and the contact is abruptly closed again.

Features:

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
Very short bouncing times	< 1 ms
Instantaneous switching	with always constant contact pressure up to the nominal switching point, resulting in low contact stress
Temperature resistance	by use of high temperature resistant materials and components

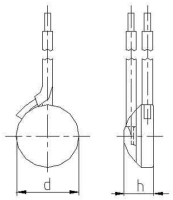
Technical Data Type CXO

The listed products are an extract from our standard range. Other versions and customised manufacturing are available upon request.

CXO

Type: Normally closed; resets automatically; with connector cables; with epoxy; without insulation

1:1



Installation height h	from 5,9 mm
Diameter d	17,1 mm

Nominal switching temperature (NST) in 5 °C increments		70 °C - 180 °C
Tolerance (standard)		±10 K
Reverse switch temperature (RST) below NST	UL	≥ 35 °C
(defined RST is possible at the customer's request)	VDE	≥ 35 °C
Installation height		from 5,9 mm
Diameter		17,1 mm
Resistance to impregnation *		suitable
Suitable for installation in protection class		I
Pressure resistance to the switch housing *		600 N
Standard connection		Lead wire 1,75 mm^2 / AWG14
Available approvals (please state)		IEC; VDE; UL; CQC; ENEC
Operating voltage range AC/DC		up until 500 V AC / 14 V DC
Rated voltage AC		250 V
Rated current AC		25 A
Max. switching current AC cos φ = 1.0/cycles		50 A / 10.000
Max. switching current AC cos φ = 1.0/cycles		75 A / 3.000
Rated voltage DC		12 V
Max. switching current DC/cycles		100 A / 10.000
Total bounce time		< 1 ms
Contact resistance (according to MIL-STD. R5757)		≤ 5 mΩ
Vibration resistance at 10 ... 60 Hz		100 m/s^2

Ordering example:

CXO - 125. 10 0100 / 0100

- Type / version
- NST [°C]
- Tolerance [K]
- Lead lengths [mm] — L_1, L_2

Marking example:

- Trade mark — **thermik**
- Type / version — **XO**
- NST [°C] . Tolerance [K] — **125.10**

More varieties of the type series XO:

• *SXO – with connector cables; with epoxy; insulation: Mylar®-Nomex®*

www.thermik.de/data/SXO

In accordance with the Thermik res. • Specifications relating to part applications, (on the part of the buyer), which deviate from our standards, are not checked for their capacity to support an application and/or conformity with standards. The responsibility for testing the suitability of Thermik products for such applications falls upon the user. • Slight deviations are possible in terms of dimensions/values, depending on the embodiment of the product. • We reserve the right to make technical changes in the course of further development. • Details concerning certain data, measurement methods, applications, approvals, etc. can be supplied upon request.