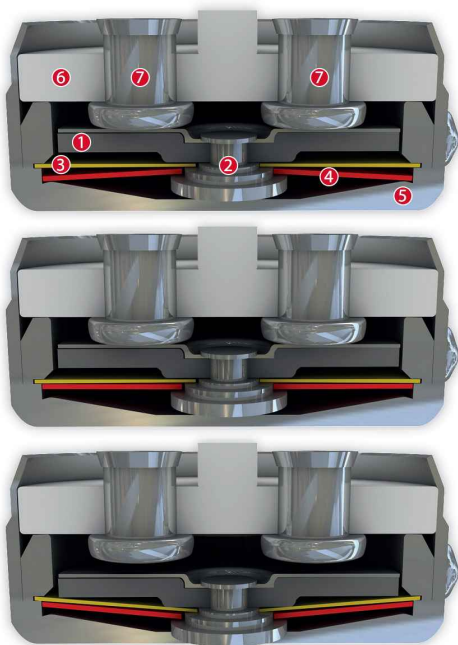


DATASHEET

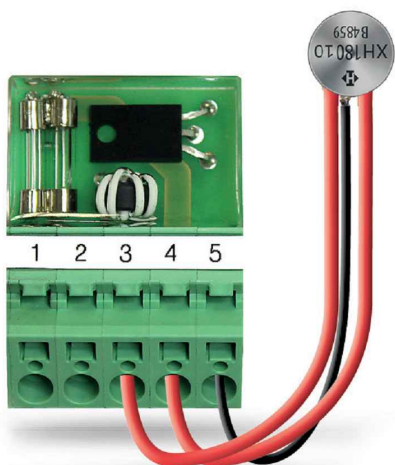
Thermal Protector CXH

Type series XH



Construction and function

Switchgear consisting of a mobile and circumferential contact bridge (1), a contact bearing pin (2), a spring snap-in disc (3) and a bimetallic disc (4) which is riveted into one another, undetachable and fixed in a positive lock and self-aligning between the floor of a conductive housing (5) and an insulating ceramic bearing (6) with two integrated stationary contacts (7). At the same time, the switchgear is supported by the spring snap-in disc (3) with the contact bridge (1) acting as a transfer element for electric current which is held between a supporting collar and a circumferential ring. As such, the bimetallic disc (4) underlying it, that is also stuck out from the contact bearing pin (2), 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 contacts are abruptly opened. The temperature will now fall. The bimetallic disc (4) will only snap back upon reaching a defined reset temperature and the contacts will be abruptly closed again. As a result of the parallel connection of the three pin switch using a controllable semiconductor valve (Triac), the arc sparks that usually occur in a millisecond range during processes are extinguished. Ideal, zero-crossing switching is created through which enormous power ratings are generated, even in the smallest of assemblies.

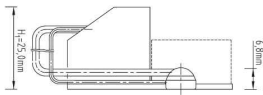
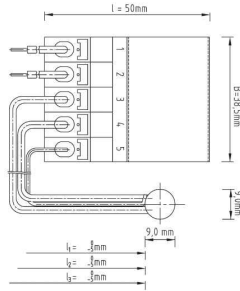
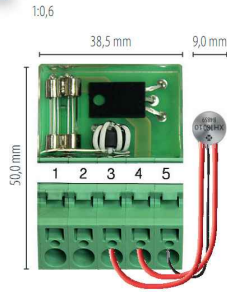


Features:

High switching performance	Maximum switching current 75 A
Quick response sensitivity	Featured by small protector mass and the brass-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
Very short bounce times	< 10 µs
Instantaneous switching	Almost arc free circuit
Temperature resistance	Due to the using of high temperature resistant materials and components

CXH

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

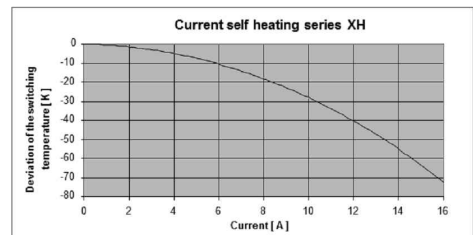


Nominal switching temperature (NST) in 5 °C increments	70 °C - 180 °C	
Tolerance (standard)	±10 K	
Reverse Switch Temperature (defined RST is possible at the customer's request)	UL	≥ 35° C (≤ 130° C NST)
	VDE	-85 K ± 15 K (≥ 135° C ≤ 190° C NST)
		≥ 35 °C
Construction, two parts	CH6 standard	
Lead wire length	customer specific	
Electronic arc extinction	38,5 x 50,0 mm	
Resistance to impregnation *	suitable	
Suitable for installation in protection class	I	
Standard connection	Lead wire 1,00 mm ² / AWG18	
Available approvals (please state)	IEC; ENEC; VDE	
Operating voltage range AC	up until 250 V AC	
Rated voltage AC	250 V	
Rated current AC cos φ = 1.0/cycles	13,5 A / 10.000	
Max. switching current AC cos φ = 1.0/cycles	75 A / 10.000	
Total bounce time	< 10 μs	
Contact resistance (according to MIL-STD. R5757)	< 25mΩ	
Vibration resistance at 10 ... 60 Hz	100 m/s ²	
maximum ambient temperature T _a of the electronic arc extinction, outside the winding (e.g. terminal box)	80 °C	

Current sensitivity characteristic at I_{nom}:

dependent of ..

- Thermal coupling
- Application area
- Built-in conditions
- Outer influences
- Wiring length / wiring diameter



Ordering example:

CXH - 130. 10 0100 / 0100

Type / version _____

NST [°C] _____

Tolerance [K] _____

Lead lengths [mm] _____ l₁ l₂

Marking example:

 thermik

Trade mark _____

Type / version _____ XH

NST [°C] . Tolerance [K] _____ 130.10

More varieties of the type series XH:

• SXH – with connector cables; hybrid; insulation: Mylar®-Nomex®

www.thermik.de/data/SXH

*In accordance with the thermik test - 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 lies with the user. - Slight deviations are possible in terms of dimensions/ tolerances. - The manufacturer reserves the right to make technical changes in the course of further development. - Items concerning certain data, measurement methods, applications, approvals, etc. can be supplied upon request.