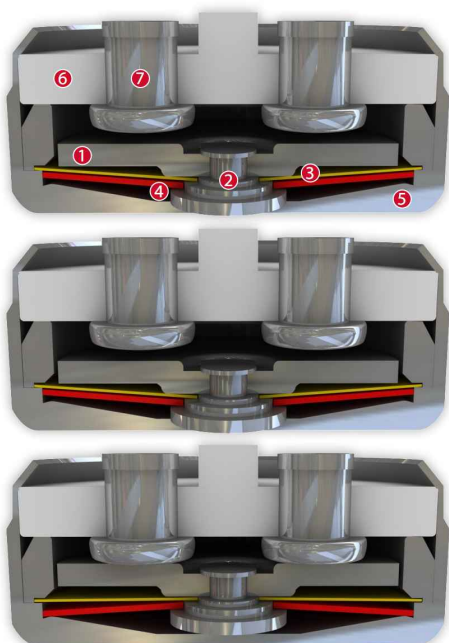


DATASHEET

Thermal Protector H08

Type series 08



Construction and function

Switchgear consisting of a mobile and circular 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 a non-conductive floor of a housing (5) and an insulating ceramic bearing (6) with two integrated stationary contacts (7) as electrodes. At the same time, the switchgear is initially held open by the spring snap-in disc (3) with the contact bridge (1) acting as a transfer element for electric current after the switching process) which is fastened 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 distance between the contact surfaces (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 (7) are abruptly closed. The temperature will now fall. The bimetallic disc (4) will only snap back upon reaching a defined spring back temperature and the contacts will be abruptly opened again. As a result of the dimensioning of the contact bearing pin (2), an easy, circular rotation of the circle-shaped contact bridge (1) is enabled with every switch so that transfer resistances remain constantly below the minimum limit after many switch cycles and the long term stability is sustained even under high levels of stress.



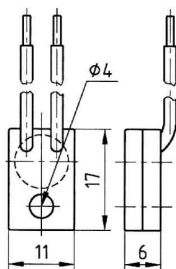
Features:

Contact opening	with constant distance of the contacts in the whole range between switching temperature and reset temperature
Ceramic deck-plate	as contact-carrying part
Very short bounce time	< 1 ms
Instantaneous switching	always with the same contact pressure up to reset point; resulting in low contact stress
Excellent long term performance	due to fine silver contacts; reproducible switching temperature values due to tempered, electrically and mechanically unstressed bimetallic disc

Technical Data Type H08

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

H08



Installation height h	from 7,5 mm
Housing size (length/width)	17,0 mm / 11,0 mm
Fixing/Max. torque	3,0 Nm

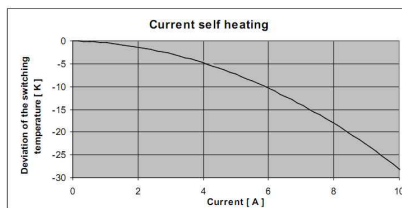
Type: Normally open; resets automatically; with connector cables; with epoxy; fully insulated in the attachment housing

Nominal switching temperature (NST) in 5 °C increments		70 °C - 200 °C
Tolerance (standard)		±5 K
Reverse Switch Temperature (defined RST is possible at the customer's request)	UL	≥ 35 °C (≤ 95 °C NST) -50 K ± 15 K (≥ 100 °C ≤ 180 °C NST) -65 K ± 15 K (≥ 185 °C ≤ 200 °C NST)
	VDE	≥ 35 °C
Installation height		from 7,5 mm
Housing size (length/width)		17,0 mm / 11,0 mm
Fixing/Max. torque		3,0 Nm
Resistance to impregnation *		suitable
Suitable for installation in protection class		I + II
Pressure resistance to the switch housing *		600 N
Standard connection		Lead wire 0,75 mm ² / AWG18
Available approvals (please state)		IEC; ENEC; VDE; UL; CSA; CQC
Operating voltage range AC		up until 500 V AC
Rated voltage AC		250 V (VDE) 277 V (UL)
Rated current AC cos φ = 1.0/cycles		10,0 A / 10.000
Rated current AC cos φ = 0.6/cycles		6,3 A / 10.000
High voltage resistance		2,0 kV
Total bounce time		< 1 ms
Contact resistance (according to MIL-STD. R5757)		≤ 50 mΩ
Vibration resistance at 10 ... 60 Hz		100 m/s ²

Current sensitivity characteristic at I_{nom}:

dependent of:

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



Ordering example:

H08 - 125.05 0100/ 0100

Type / version _____

NST [°C] _____

Tolerance [K] _____

Lead lengths [mm] _____ L₁ L₂

Marking example:

 Trade mark _____

Type / version _____ **H08**

NST [°C] . Tolerance [K] _____ **125.05**

More varieties of the type series 08:

- C08 – with connector cables; with epoxy; without insulation
- S08 – with connector cables; with epoxy; insulation: Mylar®-Nomex®
- L08 – with connector cables; with epoxy; fully insulated in a screw on housing
- P08 – with connection pins; with epoxy; fully insulated in the attachment housing
- V08 – with connector cables and double-insulated in the attachment housing

- www.thermik.de/data/C08
- www.thermik.de/data/S08
- www.thermik.de/data/L08
- www.thermik.de/data/P08
- www.thermik.de/data/V08

*In accordance with the Thermik test - Specifications relating to part applications (on the part of the buyer) which deviate from our standards are checked for their capacity to support an application. The values shown are only approximate values and do not constitute a guarantee. 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.