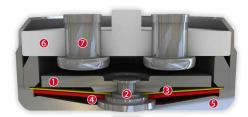
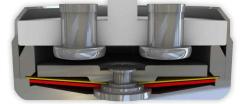


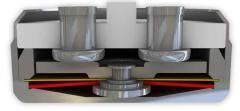
DATASHEET Thermal Protector P08

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:

Small dimensions	with constant distance of the contacts in the whole range between switching temperature and reset temperature
Quick response sensitivity	as contact-carrying part
Excellent long term performance	< 1 ms
Very short bouncing times	always with the same contact pressure up to reset point; resulting in low contact stress
Instantaneous switching	due to fine silver contacts; reproducible switching temperature values due to tempered, electrically and mechanically unstressed bimetallic disc
Temperature resistance	by use of high temperature resistant materials and components



P08

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17,0 mm	thermik P08 080.05	
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	11,0 mm	6,0 mm

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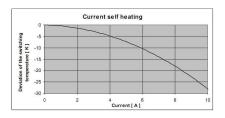
110111 0,0 111111
17,0 mm / 11,0 mm
18,0 mm
3,0 Nm

Type: Normally open; resets automatically; with connection pi	ns; with epoxy	y; fully insulated in the attachment housing
Nominal switching temperature (NST) in 5 °C increm	nents	70 °C - 200 °C
Tolerance (standard)		±5 K
Reverse Switch Temperature (defined RST is possible at the customer's request)	UL VDE	≥ 35° C (≤ 95° C NST) -50 K± 15 K (≥ 100° C ≤ 180° C NST) -65 K± 15 K (≥ 185° C ≤ 200° C NST) ≥ 35 °C
Installation height		from 6,0 mm
Housing size (length/width)		17,0 mm / 11,0 mm
Length of the connection pins		18,0 mm
Fixing/Max. torque		3,0 Nm
Resistance to impregnation *		suitable
Suitable for installation in protection class		[+]
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 $\cos \varphi = 1.0$ /cycles		10,0 A / 10.000
Rated current AC $\cos \varphi = 0.6/\text{cycles}$		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

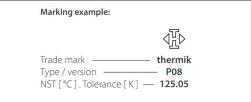
Current sensitivity characteristic at I_{nom} :

dependent of:

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



Ordering example: P08 - 125, 05 Type / version -NST[°C] -Tolerance [K] -



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
- H08 with connector cables; 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/H08 www.thermik.de/data/V08





In acordance with the Thermik test - Specifications behing to part applications (on the part of the tuyer) which deviate from our standards are not checked for their capacity to support an application and/or conform on when the responsibility to resign the subdiship of Thermik products for such applications bills upon the vest - Significations are possible in terms of dimensional voltes, depending on the embodiment of the podact. We reserve the right to make redunied changes in the coase of further development. Details concerning certain data, measurement methods, applications, applied to prove report.