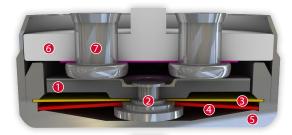
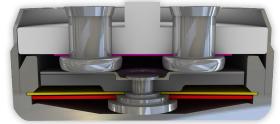


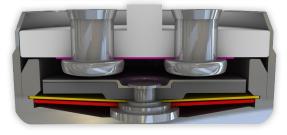
DATASHEET Thermal Protector SRH

Type series RH









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 a non-conductive floor of a 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 (7) are abruptly opened. The resistance ceramic (6) switched in parallel now sustains the operating voltage and deploys a defined electrical heating output on the switchgear regardless of the ambient temperature and permanently sustains it above its springback temperature so that the switchgear cannot reset back. The contacts (7) remain open. The Thermal protectors can only cool down again and switch to the original closed state when the external operating voltage is no longer applied and/or disconnection from the mains.



Features:

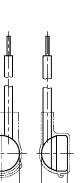
Quick response sensitivity	featured by the brass housing and small protector mass
High performance	switching currents up to 42 A
Excellent long term performance	due to fine silver contacts, reproducible switching temperature values due to tempered, electrically and mechanically unstressed bimetal disc. minimal contact burn
Instantaneous switching	with always constant contact pressure up to the nominal switching point, resulting in low contact stress
Very short bounce times	< 1 ms

SRH



7,0 mm	





Nominal switching temperature (NST) in 5 °C increments		70 °C - 180 °C
Tolerance NST ≤ 140 °C		±5 K
Tolerance NST > 140 ℃		±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 7,0 mm	
Diameter		9,4 mm
Length of the insulation cap		17,0 mm
Resistance to impregnation *		suitable
Suitable for installation in protection class		+
Pressure resistance to the switch housing *		600 N
Standard connection	Lead wir	e 1,0 mm² / AWG18
Available approvals (please state)	IEC;	ENEC; VDE; UL; CSA
Operating voltage range AC		up until 250 V AC
Rated voltage AC	120 V / 230	0 V (VDE) 250 V (UL)
Rated current AC cos φ = 1.0/cycles		13,5 A / 300
Rated current AC cos φ = 0.6/cycles		9,0 A / 300
Max. switching current AC $\cos \varphi = 1.0$ /cycles		42,0 A / 300
High voltage resistance		2,0 kV
Total bounce time		< 1 ms
Contact resistance (according to MIL-STD. R5757)		≤ 50 mΩ

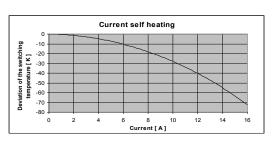
Installation height h	from 7,0 mm
Diameter d	9,4 mm
Length of the	17 0 mm

insulation cap I

Current sensitivity characteristic at I_{nom} : dependent of...

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

Vibration resistance at 10 ... 60 Hz



Ordering example: SRH - 125, 05 0100 / 0100 230V Type / version NST [°C] Tolerance [K] -Lead lengths [mm] Operating voltage [V]



• CRH- with connector cables; with epoxy; without insulation

Marking example: Trade mark -Type / version — NST [°C] . Tolerance [K] — **125.05** Operating voltage [V] —

www.thermik.de/data/CRH

100 m/s²