KARL SCHUPP AG

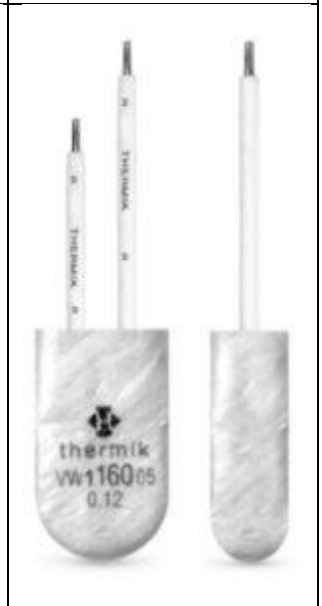
CONDUCT – PROTECT – INSULATE



The types CWK, SW1, VW1 and VWK are current-sensitive, self-retaining switches, with connecting wires

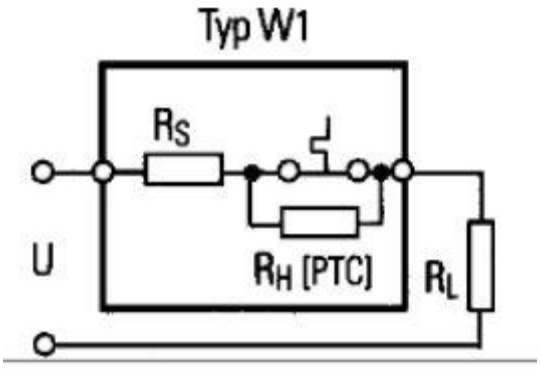
The types SW1 and VW1 are fully encapsulated in a Mylar®- Nomex® insulating cap

Thermal Protectors type CW1 / SW1 / CWK / VW1; 1.6 - 7.5 A

CW1	SW1	CWK	VW1
			

Switch type:	**NC contact CW1**	**NC contact SW1**	**Normally closed contact CWK**	**Normally closed contact VW1**
	self-retaining , defined current-sensitive			
Insulated: with insulation protection cap	no	Yes	no	yes
Temperature				
Nominal switching temperature (NST), in 5 K steps [°C]	60 - 160			
Tolerance range -Standard- Tol[[K]	± 5			
Reverse Switch Temperature (RST below NST) UL [°C] Reverse Switch Temperature (RST below NST) VDE [°C]	> 35 > 35			
Tension				
Operating voltage range AC from ... [VAC]	100 to 250			
Rated voltage 50/60 Hz [VAC]	250 (VDE), 277 (UL)			
Current/switching cycles				
Rated current - cos Φ = 1.0 [A] / [n]	2,5 / 1'000			
Rated current - cos Φ= 0.6 [A] / [n]	1,6 / 1'000			
max. switching current - cos Φ = 1.0 [A] / [n]	9,0 / 1'000			
Additional specifications				
Series resistors for setting the current sensitivity		from 0.12 Ω to 70 Ω		
High-voltage resistance [kV]	---	2	---	2
Total bounce time [ms]	< 1			
Contact resistance (according to MIL-STD R5757) [mΩ]	< 50			
Vibration resistance 10 ... 60 Hz [m/s2]	100			
Suitable for installation in protection class	I	I + II	I	I + II
Impregnation resistance	suitable			
Self-retaining with heating resistor RH (TB = 80 °C or 150 °C)	down to -20°C, freely suspended in still air. Correspondingly higher temperatures with thermal coupling. PTC heating resistor			
Available Licenses and Approvals				
please specify	IEC, ENEC, VDE, UL	IEC, VDE, UL	IEC, VDE, UL	IEC, VDE
Dimensions (standard)				
Diameter Ø d [mm]	9,0	9,4	9,0	9,9
Overall height (with standard connection) h [mm]	from 5.1	from 5.6	from 5.1	from 5.8
Length of the insulation cap l [mm]	---	18,0	---	19,0
Standard connection wire:	Ø= 0.5 mm / AWG 22			

Functional circuit diagram - Standard -



After the switch is opened, the current flows through the PTC heating resistor and heats the switch so that it remains in the off state until the voltage is removed. The series resistor is used to adjust the current sensitivity, as its heating causes the switch to trip earlier.

CW1	SW1	CWK	VW1
			

Note

The data and information provided are based on tests and test series. They are intended as a guide, which is why there may be deviations for individual applications and uses. The suitability for a specific application must be checked by the user in each individual case.