



Features

- Small size for density PCB mounting.
- Dielectric strength: 5000V.

Safety Approval

UL, C-UL File No.: E190598

TUV File No.: R50143452

CQC File No.: CQC07001018779

Contact Capacity

Model	SMI -1 Pole	SMI -2 Poles
Nominal switching capacity (res. load)	10A 250VAC	5A 250VAC
Max. switching current	10A	5A
Max. switching voltage	250VAC	250VAC
Max. switching power	2,500VA	1,250VA

Charateristic Data

Contact material	Silver alloy	
Initial contact resistance (at 6VDC 1A)	50mΩ Max.	
Operate time (at nominal volt.)	SMI-D: 15msec. Max.	SMI-L: 20msec. Max.
Release time (at nominal volt.)	8msec. Max.	
Initial insulation resistance	1,000MΩ Min.(DC500V)	
Initial dielectric strength	Between open contacts: AC1,000V, 50/60Hz 1Min.	
	Between coil and contact: AC5,000V, 50/60Hz 1Min.	
Vibration resistance	Functional	10 ~ 55Hz at double amplitude of 1.5 mm
	Destructive	10 ~ 55Hz at double amplitude of 1.5 mm
Shock resistance	Functional	10G Min.
	Destructive	100G Min.
Endurance (operations)	Mechanical (at 10,800 ops./h)	10,000,000
	Electrical (at 1,800 ops./h)	100,000
Ambient temperature	-40°C ~ +105°C (no condensation)	
Unit weight	Approx. 13.5 g	

Coil Data (at 20°C)

Nominal voltage (VDC)	Nominal operating current ± 10% (mA)	Coil resistance ± 10% (Ω)	Max. allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
3	240.00	12.5	130 % of nominal voltage	80 % of nominal voltage	5 % of nominal voltage	Approx. 0.72W
5	144.00	35				
6	120.00	50				
9	80.00	115				
12	60.00	200				
18	40.00	450				
24	30.00	820				
48	15.00	3,300				

Coil Data (at 20°C)

Nominal voltage (VDC)	Nominal operating current ± 10% (mA)	Coil resistance ± 10% (Ω)	Max. allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
3	180.00	17	130 % of nominal voltage	80 % of nominal voltage	5 % of nominal voltage	Approx. 0.54W
5	108.00	46				
6	90.00	67				
9	60.00	150				
12	45.00	267				
18	30.00	600				
24	22.50	1,067				
48	11.25	4,267				

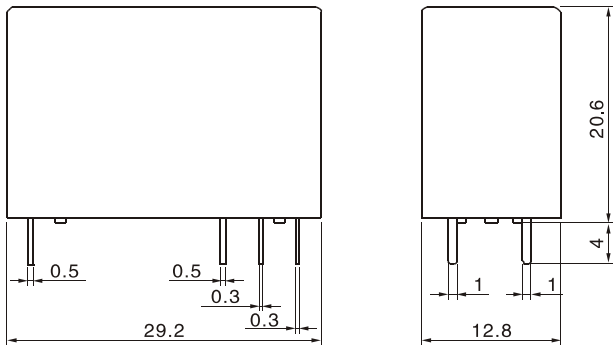
Safety Approval Ratings

Approval	CQC	TUV	UL/CUL	
File No.	CQC07001018779	R50143452	E190598	
Approved ratings	1 pole: 10A 250VAC 2 poles: 5A 250VAC	1 pole: 10A 250VAC 10A 30VDC 2 poles: 5A 250VAC 5A 24VDC	1 Pole: 10A 250VAC, Resistive 10A 250VAC, General Use 5A 250VAC, General Use 10A 30VDC, Resistive TV-3 250VAC, N.O. TV-2 250VAC, N.O. Pilot duty: 250VA 250VAC	2 Poles: 5A 250VAC, Resistive 5A 250VAC, General Use 2A 120VAC, General Use 2A 240VAC, General Use 5A 24VDC, Resistive Pilot duty: 125VA 250VAC

Ordering Information

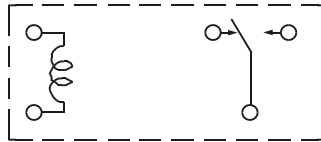
Nomenclature						
SMI	S	-1	12	D	M	1 - F - XX
Special Parameter: Nil-Standard type, Letter or number-Special requirement						
Insulation System: Nil-Standard, B-Class B, F-Class F						
Contact Material: Nil-AgSnO ₂ , 1-AgCdO						
Contact Form: Nil-Form C, M-Form A						
Coil Power: D-0.72W, L-0.54W						
Coil Voltage (VDC): 03, 05, 06, 09, 12, 18, 24, 48						
Number of Poles: 1-1 Pole, 2-2 Poles						
Protective Construction: S-Flux proofed, SH-Sealed type washable						
Type Designation: SMI						

Outline Dimensions, Wiring Diagram, P.C. Board Layout(unit: mm)

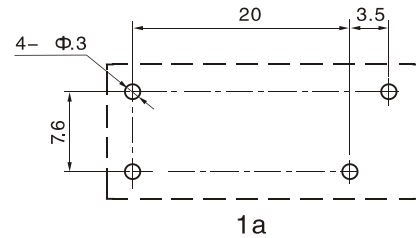
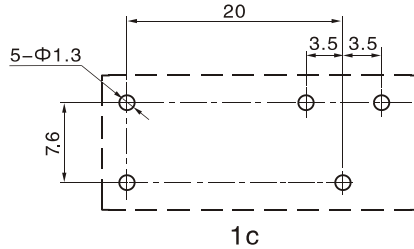


Unless otherwise specified:
 If dimension < 1mm, tolerance: ± 0.2mm;
 If dimension 1~5mm, tolerance: ± 0.3mm;
 If dimension > 5mm, tolerance: ± 0.4mm.
 Note: 1. Extended terminal dimension is dimension before soldering.
 2. Tolerance of P.C.B. layout: ± 0.1mm.

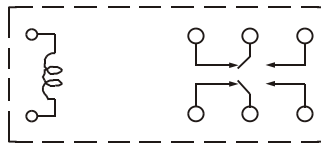
Wiring Diagram (bottom view)



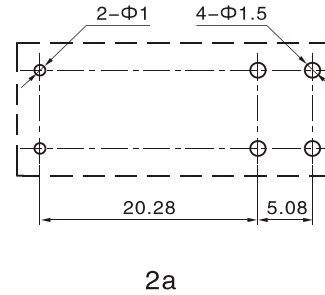
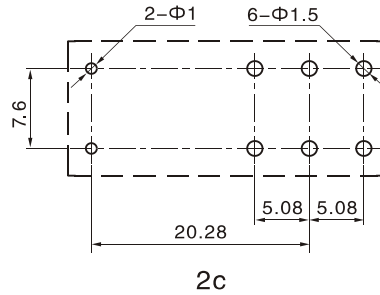
P.C.B. Layout (bottom view)



Wiring Diagram (bottom view)



P.C.B. Layout (bottom view)

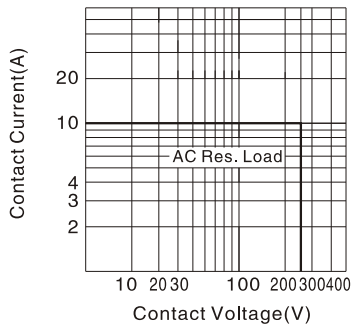


Typical Applications

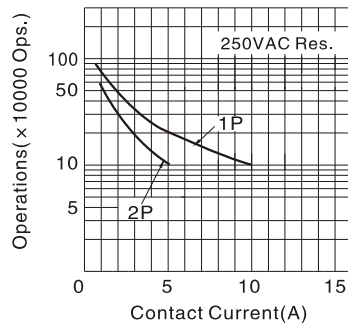
- Home appliances, air conditioner, microwave oven, audio equipment, monitor, industrial control equipment, instrument, etc.

Characteristic Curves

Max. Switching Power



Endurance Curve



Coil Temp. Rise

