

## Features

- 30A contact switching capacity
- 1 pole, nominal open available
- Allow to connect resistor or diode in parallel
- Fast connect leading out terminal
- Much lower body compared to like products

## Contact Capacity

Model	SARH-DM
Nominal switching capacity (res. load)	30A 14VDC / 20A 30VDC
Max. switching current	30A
Max. switching voltage	30VDC
Max. switching power	280W

Contact load voltage	Load type		Contact load current(A)		break-make ratio	Electrical Endurance (cycles)	Contact material
			type A	1-1 pole			
14VDC	Res.	on	30	2S	100,000	AgSnO <sub>2</sub>	
		off	30	2S			
	Ind	on	40	2S	100,000	AgSnO <sub>2</sub>	
		off	20	2S			
	Lamp	on	100	2S	100,000	AgSnO <sub>2</sub>	
		off	20	2S			
30VDC	Res.	on	20	2S	100,000	AgSnO <sub>2</sub>	
		off	20	2S			
	Ind	on	38	2S	100,000	AgSnO <sub>2</sub>	
		off	15	2S			
	Lamp	on	70	2S	100,000	AgSnO <sub>2</sub>	
		off	7	2S			

Remark: Load in the table are for coil without diode or resistor. pls contact us if you have special requirements

## Charateristic Data

Contact material	AgSnO <sub>2</sub>	
Initial contact resistance	50mΩ Max.	
Operate time	10msec. Max.	
Release time	5msec. Max.	
Initial insulation resistance	100MΩ Min.(DC500V)	
Initial dielectric strength	Between open contacts: AC500V, 50/60Hz 1min.	
	Between coil and contact: AC500V, 50/60Hz 1min.	
Vibration resistance	Functional	20 ~ 500 Hz, 43.1 m/s <sup>2</sup>
	Destructive	20 ~ 500 Hz, 43.1 m/s <sup>2</sup>
Shock resistance	Functional	1000 m/s <sup>2</sup>
	Destructive	100 m/s <sup>2</sup>
Endurance (operations)	Mechanical (at 10,800 ops./h)	10,000,000 cycles
	Electrical (at 900 ops./h)	100,000 cycles
Ambient temperature	-40°C ~ +125°C (no condensation)	
Unit weight	Approx. 14g	

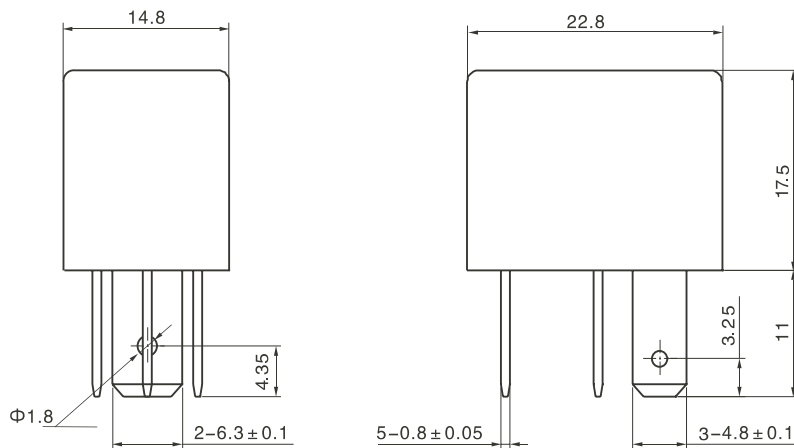
**Coil Data** (at 20°C)

Nominal voltage (VDC)	Nominal operating current ± 10%(mA)	Coil resistance ± 10%(Ω)	parallel resistance (Ω)	Equivalent resistance (Ω)	Max. allowable voltage	Pick-up voltage (Max.)	Max allowable voltage	Nominal operating power (W)
6	266.7	22.5	---	---	3.6	0.6	130% of nominal voltage	1.6
9	180.0	50	---	---	5.4	0.9		
12	133.3	90	---	---	7.2	1.2		
24	66.7	360	---	---	14.4	2.4		
48	33.3	1,440	---	---	28.8	4.8		
6	266.7	22.5	180	20	3.6	0.6		1.8
12	133.3	90	680	79.5	7.2	1.2		
24	66.7	360	2,700	317.6	14.4	2.4		
6	214.3	28	---	---	3.6	0.6		1.3
12	109	110	---	---	7.2	1.2		
24	54	445	---	---	14.4	2.4		
6	214.3	28	180	24.2	3.6	0.6		1.5
12	109	110	680	94.7	7.2	1.2		
24	54	445	2,700	382	14.4	2.4		
12	66.7	180	---	---	7.2	1.2		0.8
24	33.3	720	---	---	14.4	2.4		
12	66.7	180	680	142.3	7.2	1.2		1.0
24	33.3	720	2,700	568.4	14.4	2.4		

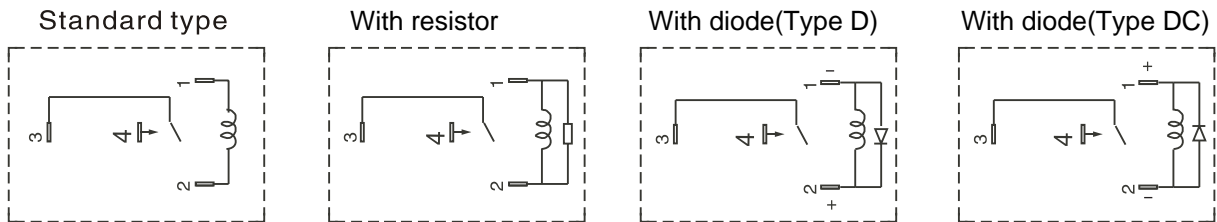
**Ordering Information**

Nomenclature						
SARH	-S	-1	12	D	M	R-XX
Special Parameter: Nil-Standard type, Letter or number Special requirement						
Accessory Form: Nil-Without accessory, R-With resistor, D-With diode D type DC - With diode DC type						
Contact Form: M-Form A						
Coil Power: H-1.6W/(1.8W), D-1.3W/(1.5W), L-0.8W/(1.0W)						
Coil Voltage (VDC): 06, 09, 12, 24, 48						
Number of Poles: 1-1 Pole						
Protective Construction: S-Flux proofed SH-Sealed type washable						
Type Designation: SARH						

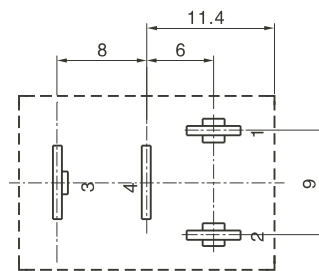
## Outline Dimensions, Wiring Diagram, Mounting Holes



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)

## Typical Applications

- Heater, fan controller, oil pump controller, windscreen wiper controller, headlight controller
- Auto air conditioner, electromagnet controller, lighting system, interlinks, office automation equipment

## Characteristic Curves

