

Features

- 20A switching capability.
- Form A and Form C contact configuration available.
- Resistance or diode paralleled type available.
- Fluxproof and sealed type available.
- Quick connect terminal.

Contact Capacity

Model	CAR
Nominal switching capacity (res. load)	15A 24VDC
Max. switching current	25A
Max. switching voltage	30VDC
Max. switching power	360W

Charateristic Data

Contact material	Silver alloy	
Initial contact resistance (at 6VDC 1A)	50mΩ Max.	
Operate time (at nominal volt.)	10msec. Max.	
Release time (at nominal volt.)	5msec. Max.	
Initial insulation resistance	100MΩ Min.(DC500V)	
Initial dielectric strength	Between open contacts: AC700V, 50/60Hz 1Min.	
	Between coil and contact: AC700V, 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 900 ops./h)	100,000
Ambient temperature	-40°C ~ +125°C (no condensation)	
Unit weight	Approx. 17.5 g	

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.)	Drop-out voltage (Min.)	Nominal operating power
5	333.3	15	---	---	130 % of nominal voltage	70 % of nominal voltage	10 % of nominal voltage	1.6W
6	266.7	22.5	---	---				
9	180.0	50	---	---				
12	133.3	90	---	---				
24	66.7	360	---	---				
48	33.3	1,440	---	---				
6	266.7	22.5	180	20	130 % of nominal voltage	70 % of nominal voltage	10 % of nominal voltage	1.8W
12	133.3	90	680	79.5				
24	66.7	360	2,700	317.6				

Coil Data (at 20°C)

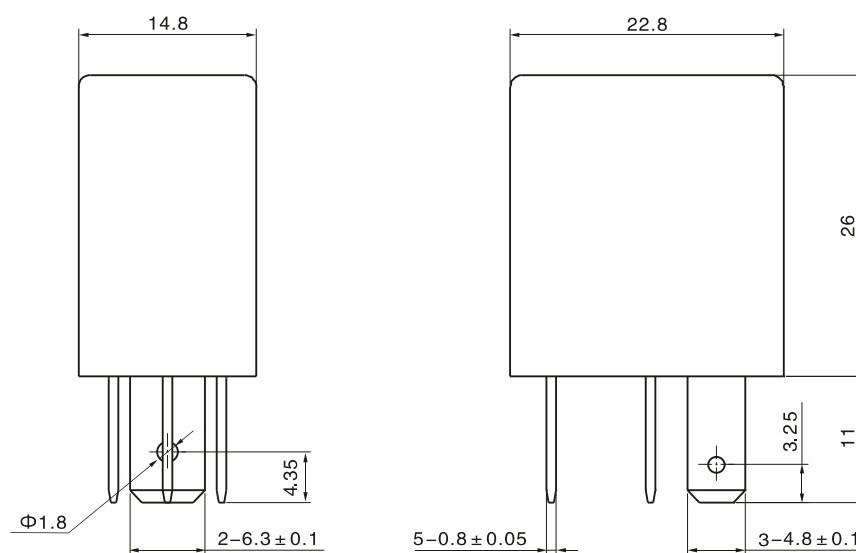
Sensitivity

Nominal voltage (VDC)	Nominal operating current $\pm 10\%$ (mA)	Coil resistance $\pm 10\%$ (Ω)	Parallel resistance (Ω)	Equivalent resistance (Ω)	Max. Allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
6	214.3	28	---	---	130 % of nominal voltage	70 % of nominal voltage	10 % of nominal voltage	1.3W
12	109	110	---	---				
24	54	445	---	---				
12	109	110	1,000	99				1.4W

Ordering Information

Nomenclature							
SARS	-S	-1	12	D	M	R-XX	
Special Parameter: Nil-Standard type, Letter or number-Special requirement							
Accessory Form: Nil-Without accessory, D-With diode, R-With resistor							
Contact Form: Nil-Form C, M-Form A							
Coil Power: D-1.6W/1.8W, L-1.3W/1.4W							
Coil Voltage (VDC): 06, 09, 12, 18, 24, 48							
Number of Poles: 1-1 Pole							
Protective Construction: Nil-Dust cover S-Flux proofed SH-Sealed type washable							
Type Designation: SARS							

Outline Dimensions, Wiring Diagram, Mounting Holes (unit: mm)

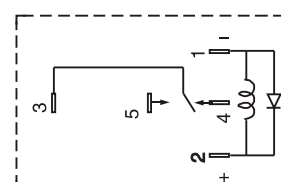
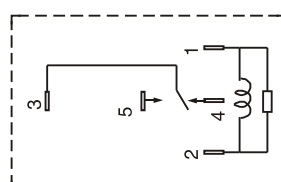
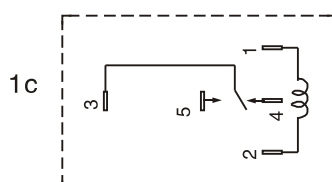


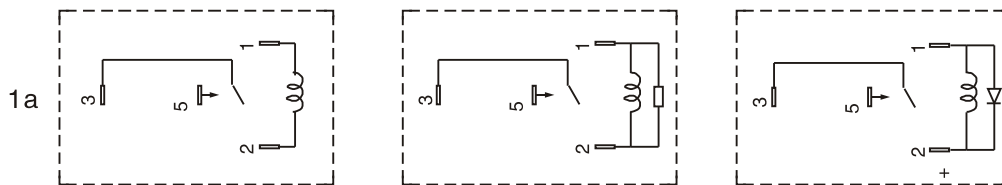
Unless otherwise specified:
 If dimension < 1mm, tolerance: $\pm 0.2\text{mm}$;
 If dimension 1-5mm, tolerance: $\pm 0.3\text{mm}$;
 If dimension > 5mm, tolerance: $\pm 0.4\text{mm}$.
 Note: 1. Extended terminal dimension is dimension before soldering.
 2. Tolerance of mounting holes: $\pm 0.1\text{mm}$.

w/t accessory

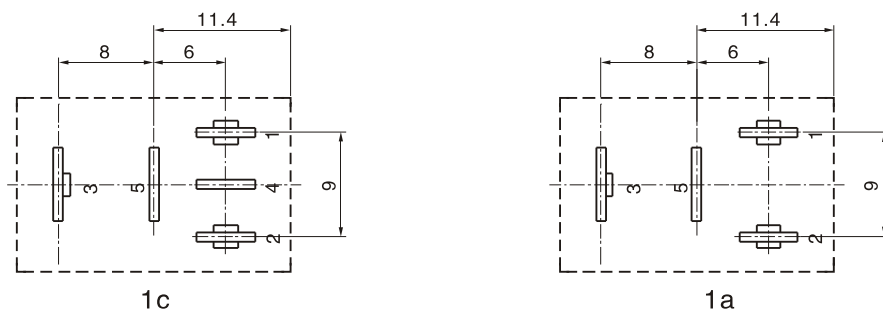
with resistor

with diode





Wiring Diagram (bottom view)



Mounting Holes (bottom view)

Typical Applications

- Heater, fan control, fuel pump control, wiper control, headlight control.
- Car air conditioner, electromagnet control, lighting control, interlocks, office equipment, etc.

Characteristic Curves

Max. Allowable load range

