

# SRS1 Series

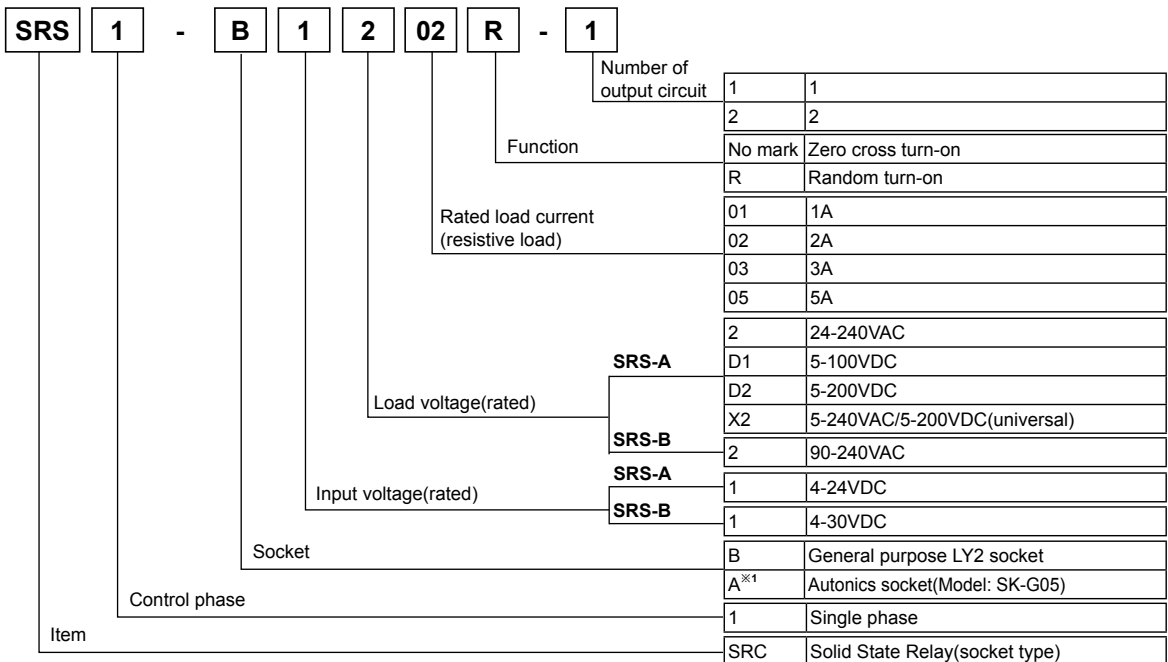
## Single phase, Socket heatsink separated type SSR

### ■ Features

- Dielectric strength 2,500 VAC
- SRS1-A: AC, DC, AC/DC control  
SRS1-B: AC control
- Socket type(Autonics SRS1-A: socket SK-G05, SRS1-B: general purpose LY2) saves working time and improves ease of maintenance
- Supports Zero cross turn-on/Random turn-on type
- Checks input status by Input LED(red)

⚠ Please read "Caution for your safety" in operation manual before using.

### ■ Ordering information



SRS1-A

(available on August, 2013)



SRS1-B

NEW

※1: SRS1-A and SRS1-B1205(R)-1 will be available on August, 2013.

Model	Input voltage	Rated load current	Load voltage	Zero cross turn-on/Random turn-on			
SRS1-A	4-24VDC	2A	24-240VAC	Zero cross turn-on			
				Random turn-on			
				Zero cross turn-on			
				Random turn-on			
		5A	5-100VDC	—			
				—			
		1A	5-200VDC	—			
				5-240VAC/5-200VDC	—		
			SRS1-B		4-30VDC	2A (consists of 2 circuits)	90-240VAC
				Random turn-on			
3A	Zero cross turn-on						
	Random turn-on						
5A	Zero cross turn-on						
	Random turn-on						

# Socket type SSR

## ■ Specifications

### ○ Input

	SRS1-A	SRS1-B
Input voltage range	4-26.4VDC	4-32VDC
Max. input current	15mA	13mA
Pick-up voltage	Min. 4VDC	
Drop-out voltage	Max. 1VDC	

### ○ Output(AC)

Model	SRS1-A1202(R)	SRS1-A1203(R)	SRS1-A1205(R)	SRS1-B1202(R)-2	SRS1-B1203(R)-2	SRS1-B1205(R)-1
Load voltage range	24-264VACrms(50/60Hz)			90-240VACrms(50/60Hz)		
Rated load current resistive load	2Arms	3Arms	5Arms	2Arms	3Arms	5Arms
Min. load current	0.15Arms	0.2Arms		0.15Arms		
Max. 1cycle surge current (60Hz)	126A	250A		126A		250A
Max. non-repetitive surge current(I <sup>2</sup> t, t=8.3ms)	65A <sup>2</sup> S	400A <sup>2</sup> S		65A <sup>2</sup> S		220A <sup>2</sup> S
Peak voltage(Non-repetitive)	600V					
Leakage current(Ta=25°C)	Max. 2mArms					
Output on voltage drop[Vpk] (Max. load current)	Max. 1.6V					
Static off-state dv/dt	500V/μs					
Turn-on time	Zero cross turn-on	0.5 cycle of load source + 1ms				
	Random turn-on	Max. 1ms				
Turn-off time	0.5 cycle of load source + 1ms					

### ○ Output(DC, AC/DC)

Model	SRS1-A1D101	SRS1-A1D102	SRS1-A1D201	SRS1-A1X201
Load voltage range	3-120VDC		3-220VDC	3-264VAC 50/60Hz 3-220VDC
Rated load current resistive load	1Adc	2Adc	1Adc	1Arms/1Adc
Min. load current	10mA			
Max. surge current (t=10ms)	5A	10A	4A	
Leakage current	Max. 100uA			Max. 2mArms
Output on voltage drop[Vpk] (Max. load current)	Max. 1.1V			Max. 2.2V
Static off-state dv/dt	500V/μs			
Turn-on time	1ms	2ms	1ms	2ms
Turn-off time	1ms			

### ○ General Specifications

	SRS1-A	SRS1-B
Dielectric strength(Vrms)	2,500VAC 50/60Hz 1min.(Input-Output, Input/Output-Case)	
Insulation resistance	Min. 100MΩ(at 500VDC Megger)	
Input LED	Red	
Protection	According to protection of socket (SK-G05: IP10)	
Environment	Ambient temperature	-20 to 70°C, storage: -30 to 100°C
	Ambient humidity	45 to 85%RH, storage: 45 to 85%RH
Unit weight	3A and below: Approx. 17g(approx. 270g), 5A: Approx. 28g (approx. 380g)	Approx. 30g (approx. 710g)

※1: The weight is per 1 unit and the weight in parentheses is with packaging .  
(packaging unit- SRS1-A: 10EA, SRS1-B: 20EA)

※Environment resistance is rated at no freezing or condensation.

(A)  
Photo  
electric  
sensor

(B)  
Fiber  
optic  
sensor

(C)  
Door/Area  
sensor

(D)  
Proximity  
sensor

(E)  
Pressure  
sensor

(F)  
Rotary  
encoder

(G)  
Connector/  
Socket

(H)  
Temp.  
controller

(I)  
SSR/  
Power  
controller

(J)  
Counter

(K)  
Timer

(L)  
Panel  
meter

(M)  
Tacho/  
Speed/  
Pulse  
meter

(N)  
Display  
unit

(O)  
Sensor  
controller

(P)  
Switching  
mode power  
supply

(Q)  
Stepper  
motor&  
Driver&Controller

(R)  
Graphic/  
Logic  
panel

(S)  
Field  
network  
device

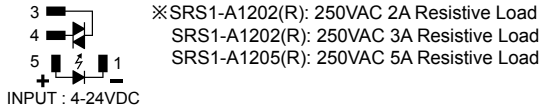
(T)  
Software

(U)  
Other

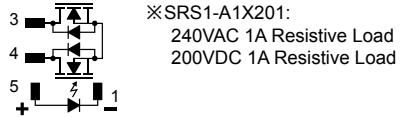
# SRS1 Series

## Connections

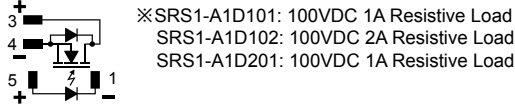
### SRS1-A1202(R)/A1203(R)/A1205(R)



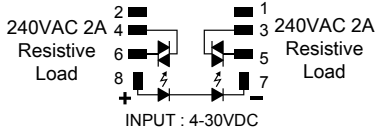
### SRS1-A1X201



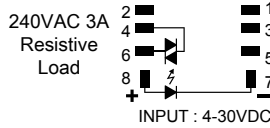
### SRS1-A1D101/A1D102/A1D201



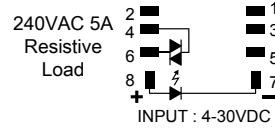
### SRS1-B1202(R)-2



### SRS1-B1203(R)-1



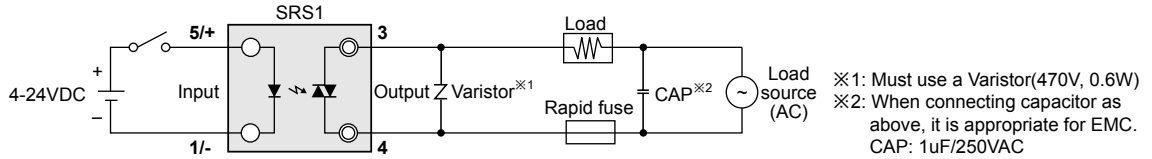
### SRS1-B1205(R)-1



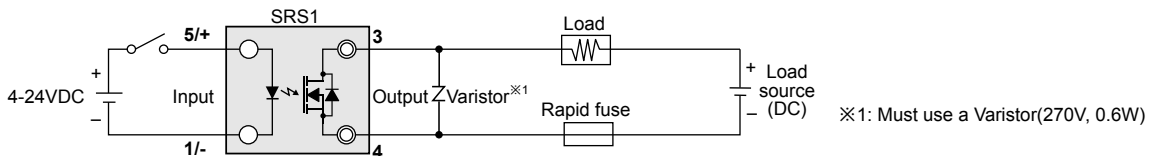
## Example of connection

### SRS1-A

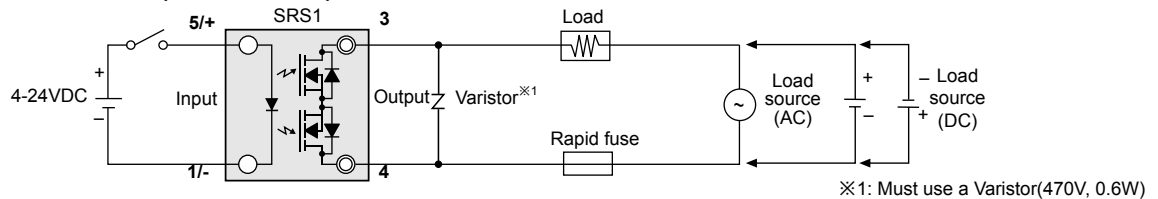
#### AC Load



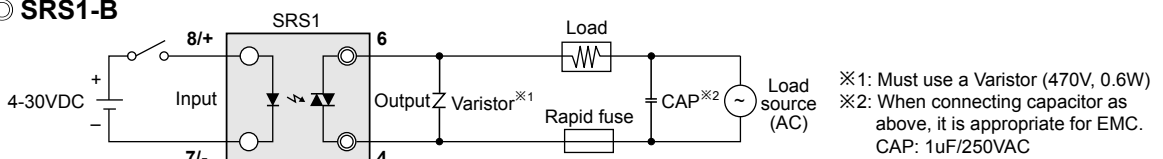
#### DC Load(SRS1-A1D101/A1D102/A1D201)



#### AC/DC Load(SRS1-A1X201)

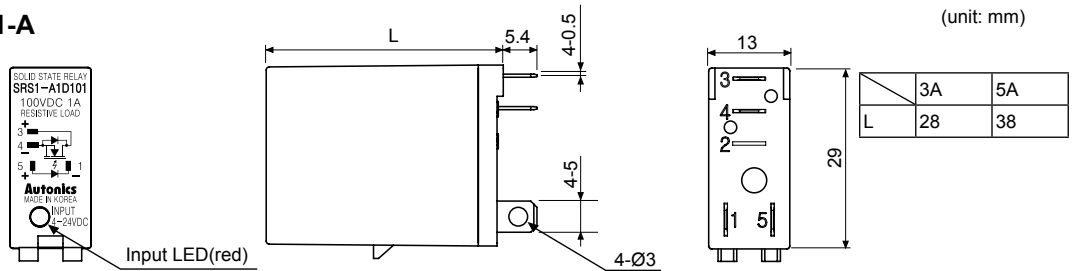


### SRS1-B

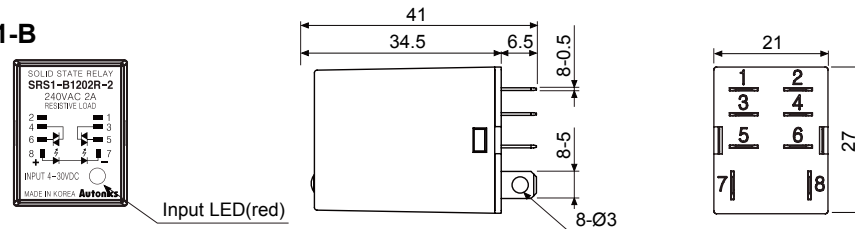


## Dimensions

### SRS1-A



### SRS1-B



## Proper usage

### High temperature caution

Make sure do not touch the heat sink or the unit body while power is supplied or right after load power is turned off. If not, it may cause a burn.

### Caution for using

1. Please attach a heatsink and ventilate for smooth convection current. If not, congested heat transfer may cause product failure or malfunction.
2. For mounting multiple SSR, please keep certain installation intervals for heat prevention. For horizontal installation(when the heights of input part and output part are equal), it is recommended to apply less than 50% of the rated load current.
3. Make sure do not touch the heatsink or the unit body while power is supplied or right after load power is turned OFF. If not, it may cause a burn.
4. Connect the proper cable for the rated load current with output terminal.
5. Use rapid fuse of which  $I^2t$  is under 1/2 of SSR  $I^2t$  in order to protect the unit from load's short-circuit current.
6. In case that load's current is lower than SSR min. load current, connect dummy resistance to the load in parallel so as to make load's current higher than SSR min. load current.
7. When selecting phase control with random turn-on model, install the noise filter between load and load's source.
8. Make sure that the screw on output terminal is tightly fastened. Using the unit with loose bolt may cause product failure or malfunction.
9. Before or during installation this unit, turn OFF the power of this unit.
10. Do not touch the load's terminal even if output is OFF. It may cause electric shock.
11. Proper application environment (Avoid following environments to install)
  - ① Where temperature/humidity is beyond the specification
  - ② Where dew condensation occurs due to temperature change
  - ③ Where inflammable or corrosive gas exists
  - ④ Where direct rays of light exist
  - ⑤ Where severe shock, vibration or dust exists
  - ⑥ Where near facilities generating strong magnetic forces or electric noise
12. Installation environment
  - ① It shall be used indoor
  - ② Altitude Max. 2,000m
  - ③ Pollution Degree 2
  - ④ Installation Category III

(A) Photo electric sensor

(B) Fiber optic sensor

(C) Door/Area sensor

(D) Proximity sensor

(E) Pressure sensor

(F) Rotary encoder

(G) Connector/Socket

(H) Temp. controller

(I) SSR/Power controller

(J) Counter

(K) Timer

(L) Panel meter

(M) Tacho/Speed/ Pulse meter

(N) Display unit

(O) Sensor controller

(P) Switching mode power supply

(Q) Stepper motor& Driver&Controller

(R) Graphic/Logic panel

(S) Field network device

(T) Software

(U) Other