

895



### >>> Features

- Low profile PCB automotive relay.
   High rating 20A/14VDC; motor load 5A/14VDC; maximum carry current up to 35A.
   Optional SPNO, SPDT, DPNO contact configurations.
   General purpose application for motor control for power window, sunroof, door lock, and flasher control, etc.
- ☐ Complies with RoHS-Directive 2011/65/EU, and ELV-Directive 2000/53/EC.

## >>> Type List

Terminal	Contact	Designation (provided with)			
style	form	Flux tight	Sealed type	Sealed type washable	
	1A (SPNO)	895-1A-C	895-1A-V	895-1A-S	
		895-1A-C-H	895-1A-V-H	895-1A-S-H	
PCB terminal		895-1C-C	895-1C-V	895-1C-S	
	1C (SPDT)	895-1C-C-H	895-1C-V-H	895-1C-S-H	
	2A (DPNO)	895-2A-C	895-2A-V	895-2A-S	

## >>> Ordering Information

895	-	1A	-	С	-	
1		2		3	4	5

- 1. 895 -- Basic series designation
- 2. 1A -- Single pole normally open
  - 1C -- Single pole double throw
  - 2A -- Single pole normally open with two N.O. terminals
- 3. C -- Flux tight

- V -- Sealed type
- S -- Sealed type washable
- 4. Blank -- Standard type
  - H -- Enlarge contact spacing
- 5. -- Coil voltage (please refer to the coil rating data for the availability)

### >>> Contact Rating

### **♦**1P

Resistive load NC:10A 14VDC, NO: 20A 14VDC, On 1s / Off 9s, 100K ops.				
Motor load Inrush 25A, steady state 5A 14VDC, On 0.5s / Off 9.5s, 200K ops.				
Max. carry current	35A/2min., 25A/1hr (25°C nominal voltage)			
	30A/2min., 20A/1hr (85°C nominal voltage)			

### **♦**2A

Lamp load	2 NO 21WX6 Lamps 14VDC			
Max. carry current	2X6A (25°C nominal voltage)			
	2X4A (85°C nominal voltage)			

# >>> Coil Rating (DC) ◆ 1P

·						
Rated	Rated current	Coil resistance	Max. continuous	Pick up	Drop out	Power consumption
voltage	±10 % at 23°C	±10 % at 23°C	voltage	voltage(Max.)	voltage(Min.)	at rated
(V)	(mA)	$(\Omega)$	at 85°C <sup>(1)</sup>	at 23°C	at 23°C	voltage
5	128	39				
9	71.1	127	133% of	60% of	8% of	approx 0.64W
12	53.3	225	rated voltage	rated	rated	approx. 0.64W
24	26.7	900	voitage	voltage	voltage	

Note: (1) Without continuous contact current.

- 1					-	-	
	Rated	Rated current	Coil resistance	Max. continuous	Pick up	Drop out	Power consumption
	voltage	±10 % at 23°C	±10 % at 23°C	voltage	voltage(Max.)	voltage(Min.)	at rated
	(V)	(mA)	$(\Omega)$	at 85°C <sup>(1)</sup>	at 23°C	at 23°C	voltage
	9	111.1	81	133% of	60% of	8% of	4 0)4/
	12	83.3	144	rated voltage	rated voltage	rated voltage	approx. 1.0W

Note: (1) Without continuous contact current.

◆ 1P(-H)

Rated	Rated current		Max. continuous		Drop out	Power consumption
voltage	±10 % at 23°C	±10 % at 23°C	voltage	voltage(Max.)	voltage(Min.)	at rated
(V)	(mA)	$(\Omega)$	at 85°C <sup>(1)</sup>	at 23°C	at 23°C	voltage
12	67.4	178	133% of	60% of	8% of	0.004
24	33.3	720	rated voltage	rated voltage	rated voltage	approx. 0.8W

Note: (1) Without continuous contact current.

## >>> Specification

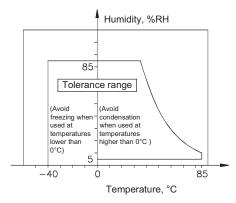
Contact material	AgSnO alloy					
Contact voltage drop (1)	Typ. 80mV at 10A					
Operate time (1)	10ms Max.					
Release time (1)	5ms Max.					
Insulation resistance (1)	100MΩ Min. (DC 500)	V)				
Dielectric strength (1)	Between open contact	et : AC 500V , 50/60Hz 1 min.				
Dielectric strength	Between contact and coil : AC 500V , 50/60Hz 1 min.					
Vibration resistance	Operating extremes	10∼500Hz , 4.4G				
Vibration resistance	Damage limits	10∼500Hz , 4.4G				
Shock resistance	Operating extremes	10G				
SHOCK resistance	Damage limits	100G				
	Mechanical	10,000,000 ops.				
Life expectancy	Wednamea	(frequency 18,000 ops./hr)				
Life expectancy	E	100,000 ops.	(for 2A)			
	Electrical	(frequency 240 ops./hr)				
Operating ambient temperature	e -40~+85°C (no freezing)					
Weight	Approx. 6 g					



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Note: (1) Initial value. Operate and release time excluding contact bounce.

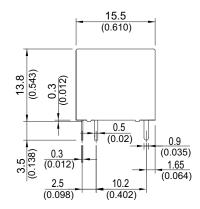
- (2) Unless otherwise specified, all tests are under room temperature and humidity.
- (3) Consider the heat of PCB is necessary, please check the actual condition of PCB.
- (4) Applying no diode to this relay. The life expectancy will be lower when a diode is used. To use a varistor (ZNR) could absorb the coil surge of relay that is recommended.
- (5) Do not use the relay exceeding the coil rating, contact rating and life expectancy, or this may cause the risk of overheating.
- (6) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.
- (7) Do not switch the contacts without any load as the contact resistance may become increased rapidly.
- (8) Flux tight version is recommended. If there is cleaning process and sealed type is selected, the vent-hole should be removed after the process.
- (9) Usage, transport and storage conditions
  - 1. Temperature: -40~+85°C
  - 2. Humidity: 5 to 85% R.H.
  - 3. Pressure: 86 to 106 kPa
  - Furthermore, the humidity range varies with the temperature. So, use relays within the range indicated in the graph below.

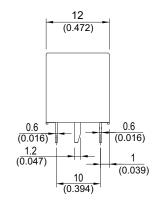


(10) Please contact Song Chuan for the detailed information.

### >>> Outline Dimensions







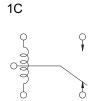
TOLERANCE:

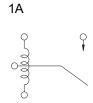
LESS THAN: 1(0.039) ±0.1(0.004) 5(0.197) ±0.3(0.012) 20(0.787) ±0.5(0.020)

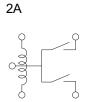
20(0.787) ±0.5(0.020 MORE THAN: 20(0.787) ±1(0.039)

## >>> Wiring Diagram

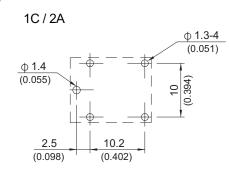
BOTTOM VIEW

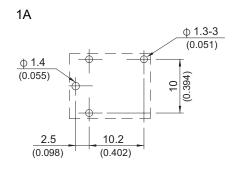




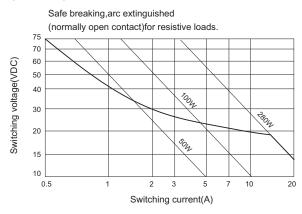


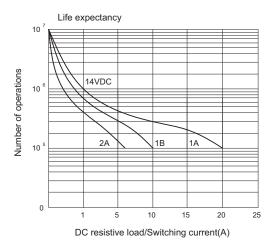
## >>> PC Board Layout

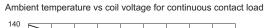


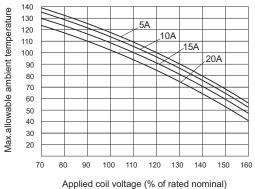


## >>> Engineering Data

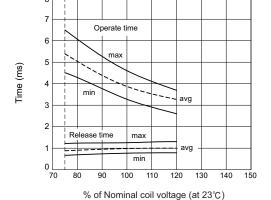








Maximum mean coil temperature=155°C



Operate time/Release time