



### »» Features

- 10mm slim miniature PCB Power Relay.
- UL/CUL、CSA/CUS、TUV、VDE approved.
- High CTI 250 material or product comply with IEC 60335-1 are available.
- High sensitivity : 200 mW & 400mW.
- High surge voltage 8,000 V between contacts and coil (1.2×50μs).
- Complies with RoHS-Directive 2011/65/EU.
- Optional for halogen free version.

### »» Type List

#### ◆ Standard Type

Terminal style	Contact form	UL Insulation system approval	Designation (provided with)		
			Flux tight	Sealed type	Sealed type washable
PCB terminal	1A (SPNO)	-----	892-1AC-C	892-1AC-V	892-1AC-S
		F	892-1AC-F-C	892-1AC-F-V	892-1AC-F-S
		-----	892-1AH-C	892-1AH-V	892-1AH-S
		F	892-1AH-F-C	892-1AH-F-V	892-1AH-F-S
	1C (SPDT)	-----	892-1CC-C	892-1CC-V	892-1CC-S
		F	892-1CC-F-C	892-1CC-F-V	892-1CC-F-S
		-----	892-1CH-C	892-1CH-V	892-1CH-S
		F	892-1CH-F-C	892-1CH-F-V	892-1CH-F-S

#### ◆ High Power Type

PCB terminal	1A (SPNO)	-----	892H-1AC-C	892H-1AC-V	892H-1AC-S
		F	892H-1AC-F-C	892H-1AC-F-V	892H-1AC-F-S
		-----	892H-1AH-C	892H-1AH-V	892H-1AH-S
		F	892H-1AH-F-C	892H-1AH-F-V	892H-1AH-F-S
	1C (SPDT)	-----	892H-1CC-C	892H-1CC-V	892H-1CC-S
		F	892H-1CC-F-C	892H-1CC-F-V	892H-1CC-F-S
		-----	892H-1CH-C	892H-1CH-V	892H-1CH-S
		F	892H-1CH-F-C	892H-1CH-F-V	892H-1CH-F-S

#### ◆ High Sensitivity Type

PCB terminal	1A (SPNO)	-----	892N-1AC-C	892N-1AC-V	892N-1AC-S
		F	892N-1AC-F-C	892N-1AC-F-V	892N-1AC-F-S
		-----	892N-1AH-C	892N-1AH-V	892N-1AH-S
		F	892N-1AH-F-C	892N-1AH-F-V	892N-1AH-F-S
	1C (SPDT)	-----	892N-1CC-C	892N-1CC-V	892N-1CC-S
		F	892N-1CC-F-C	892N-1CC-F-V	892N-1CC-F-S
		-----	892N-1CH-C	892N-1CH-V	892N-1CH-S
		F	892N-1CH-F-C	892N-1CH-F-V	892N-1CH-F-S

## »» Ordering Information

892   - 1AC -  - C    
 1 2 3 4 5 6 7 8

- |   |  |
|---|--|
| 1. 892 -- Basic series designation  | 1BH -- Single pole normally closed · Contact material AgSnO  |
| 2. Blank -- Standard type<br>H -- High power type   | 1CH -- Single pole double throw · Contact material AgSnO   |
| 3. Blank -- Standard type<br>N -- High sensitivity type   | 5. Blank -- Standard type<br>F -- Class F  |
| 4. 1AC -- Single pole normally open · Contact material AgNi<br>1BC -- Single pole normally closed · Contact material AgNi<br>1CC -- Single pole double throw · Contact material AgNi<br>1AH -- Single pole normally open · Contact material AgSnO | 6. C -- Flux tight<br>V -- Sealed type<br>S -- Sealed type washable<br>7. Blank -- Standard type<br>E1 -- Comply with IEC 60335-1<br>8. <input type="checkbox"/> -- Coil voltage (please refer to the coil rating data for the availability) |

## »» Contact Rating

Type	892	892H
Resistive load	NO / NC : 5A/3A 240VAC NO / NC : 7A/3A 120VAC	NO / NC : 10A/5A 120VAC (50,000 ops.) NO / NC : 7A/5A 240VAC
Max. switching current	NO / NC : 7A/3A	NO / NC : 10A/5A
Max. switching voltage	277VAC	277VAC
Max. switching capacity	NO / NC : 1200VA/720VA	NO / NC : 1680VA/1200VA

## »» Coil Rating (DC)

### ◆Standard Type

Rated voltage (V)	Rated current ±10 % at 23°C (mA)	Coil resistance ±10 % at 23°C (Ω)	Max. continuous voltage at 85°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
3	133.3	22.5	160 % of rated voltage	80 % of rated voltage (H type only)  75 % of rated voltage	5 % of rated voltage	approx. 0.4W
5	80	62.5				
6	66.7	90				
9	44.4	202.5				
12	33.3	360				
18	22.2	810				
24	16.7	1,440				
36	11.1	3,240				
48	8.3	5,760				
60	6.7	9,000				

## ◆High Sensitivity Type

Rated voltage (V)	Rated current ±10 % at 23°C (mA)	Coil resistance ±10 % at 23°C (Ω)	Max. continuous voltage at 85°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
3	66.7	45	170 % of rated voltage	80 % of rated voltage (HN type or 1C type only)	5 % of rated voltage	approx. 0.2W
5	40.0	125				
6	33.3	180				
9	22.2	405				
12	16.7	720				
18	11.1	1,620				
24	8.3	2,880				
36	5.6	6,480				

## »» Specification

Contact material	AgNi / Ag SnO alloy	
Contact resistance <sup>(1)</sup>	100mΩ Max. (at 1A/6VDC by 4-wire resistance measurement)	
Operate time <sup>(1)</sup>	10ms Max.	
Release time <sup>(1)</sup>	5ms Max.	
Vibration resistance	Operating extremes	10~55Hz , amplitude 1.5 mm
	Damage limit	10~55Hz , amplitude 1.5 mm
Shock resistance	Operating extremes	30G
	Damage limits	100G
Life expectancy	Mechanical	10,000,000 ops. (frequency 18,000 ops./hr)
	Electrical	100,000 ops. (frequency 900 ops./hr)
Operating ambient temperature	-40°C~+85°C (no freezing)	
Weight	Approx. 8g	

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.

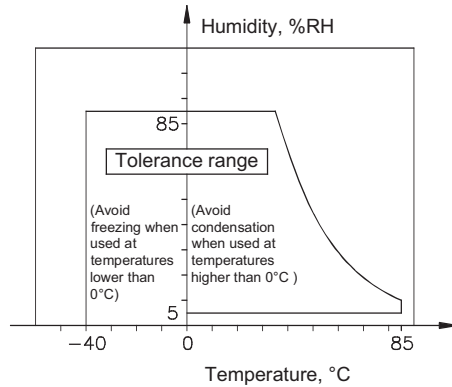
(6) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.

(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:  $-40 \sim +85^{\circ}\text{C}$
- 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.

## »» Insulation Data

Insulation resistance <sup>(1)</sup>	1000 M $\Omega$ Min. (DC 500V)
Dielectric strength <sup>(1)</sup>	Between open contact : AC 1000V , 50/60Hz 1 min.
	Between contact and coil : AC 4000V, 50/60Hz 1 min.
Insulation of IEC 61810-1	
Clearance / creepage distances	Between coil to contact : Basic, $\geq 1.5\text{mm}$ / $\geq 2.5\text{mm}$
	Between open contact : Functional
Rated insulation voltage	250V
Rated impulse withstand voltage	2500V
Pollution degree	2
Rated voltage	230 / 400V
Overvoltage category	II

Note : (1) Initial value.

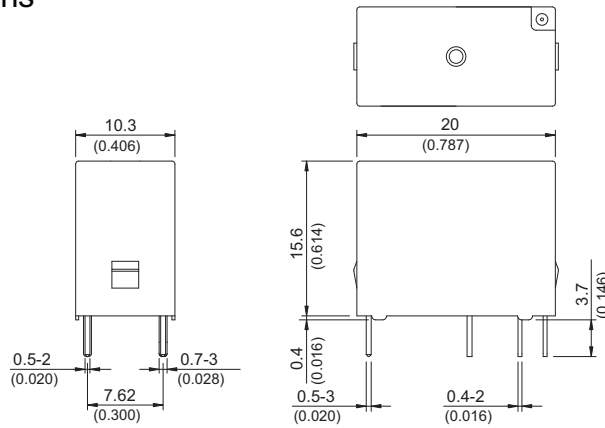
## »» Safety Approval

Certified	CSA / CUS	TUV	VDE	UL / CUL
File No.	1245129	R 50006512	40006318	E88991

### »» Safety Approval Rating

CSA / CUS		TUV	
892	892H	892	892H
NO : 7A 125VAC 5A 277VAC NC : 3A 125VAC 3A 277VAC	NO : 10A 125VAC 7A 277VAC TV-3 NC : 5A 125VAC 5A 277VAC	NO : 7A 120VAC 5A 240VAC NC : 3A 120VAC 3A 240VAC	NO : 10A 120VAC 7A 240VAC NC : 5A 120VAC 5A 240VAC
VDE		UL / CUL	
892	892H	892	892H
NO : 5A 250VAC T85 NC : 3A 250VAC T85	NO : 7A 250VAC T85 NC : 5A 250VAC T85	NO : 7A 125VAC 5A 277VAC 1/10HP 125VAC 1/6HP 277VAC NC : 3A 125VAC 3A 277VAC	NO : 10A 125VAC 7A 277VAC NC : 5A 125VAC 5A 277VAC NO/NC : 4FLA/4LRA 120VAC

### »» Outline Dimensions

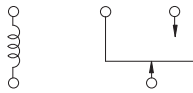


TOLERANCE:  
 LESS THAN: 1(0.039) ±0.1(0.004)  
 5(0.197) ±0.3(0.012)  
 20(0.787) ±0.5(0.020)  
 MORE THAN: 20(0.787) ±1(0.039)

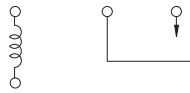
### »» Wiring Diagram

BOTTOM VIEW

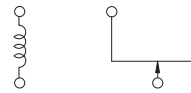
1C



1A



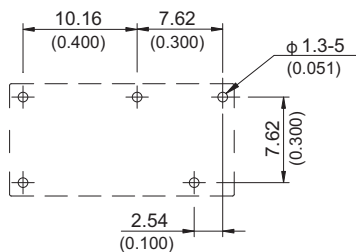
1B



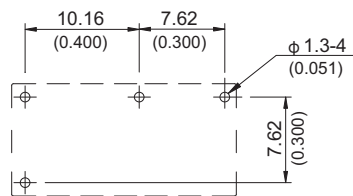
### »» PC Board Layout

BOTTOM VIEW

1C



1A



1B

