

»»» **Features** ⚡ 10mm slim miniature PCB Power Relay. ⚡



UL/CULECSA/CUSETUVEVDE approved.

⚡ High CTI 250 material or product comply with IEC 60335-1 are available.

⚡ High sensitivity K200 mW & 400mW.

⚡ High surge voltage 8,000 V between contacts and coil

⚡ Complies with RoHS-Directive 2011/65/EU.

»»» **Type**

List

⚡ Optional for halogen free version.

⚡ **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
- 2. Blank -- Standard type
H -- High power type
- 3. Blank -- Standard type
N -- High sensitivity type
- 4. 1AC -- Single pole normally open*Contact material AgNi
1BC -- Single pole normally closed*Contact material AgNi
1CC -- Single pole double throw*Contact material AgNi
1AH -- Single pole normally open*Contact material AgNi
- 5. Blank -- Standard type
F -- Class F
- 6. CV -- Flux tight
S -- Sealed type
-- Sealed type washable
- 7. Blank
E1 -- Standard type
-- Comply with IEC 60335-1
- 8.-- Coil voltage (please refer to the material AgSnO 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 | Rated current | Coil resistance | Max. continuous voltage | Pick up voltage(Max.) | Drop out voltage(Min.) | Power consumption at rated |
|---------------|---------------|-----------------|-------------------------|-----------------------|------------------------|----------------------------|
| | ±10 % at 23°C | ±10 % at 23°C | | | | |

| (V) | (mA) | (Ω) | at 85°C | at 23°C | at 23°C | voltage |
|-----|-------|--------------|------------------------|--|----------------------|--------------|
| 3 | 133.3 | 22.5 | 160 % of rated voltage | 80 % of rated voltage (H type only) | 5 % of rated voltage | approx. 0.4W |
| 5 | 80 | 62.5 | | | | |
| 6 | 66.7 | 90 | | | | |
| 9 | 44.4 | 202.5 | | 75 % of rated voltage | | |
| 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 $\pm 10\%$ at 23°C (mA) | Coil resistance $\pm 10\%$ 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 | | 75 % of rated voltage | | |
| 12 | 16.7 | 720 | | | | |
| 18 | 11.1 | 1,620 | | | | |
| 24 | 8.3 | 2,880 | | | | |
| 36 | 5.6 | 6,480 | | | | |

Specification

| | | |
|-----------------------------------|--|---|
| Contact material | AgNi / AgSnO alloy | |
| Contact resistance ⁽¹⁾ | 100m Ω Max. (at 1A/6VDC by 4-wire resistance measurement) | |
| Operate time ⁽¹⁾ | 10ms Max. | |
| Release time ⁽¹⁾ | 5ms Max. | |
| Vibration resistance | Operating extremes | 10 \times 55Hz , amplitude 1.5 mm |
| | Damage limit | 10 \times 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 焼 +85°C (no freezing) | |
| Weight | Approx. 8g | |

Note 焼(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

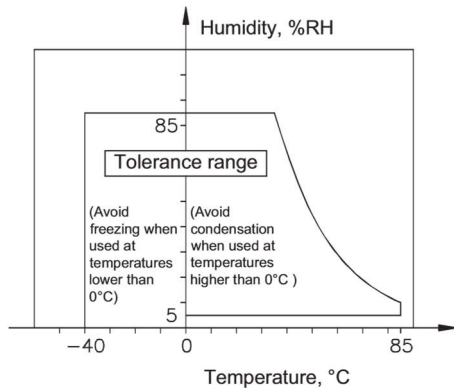
焼+85°C

!

» » "# \$\$\$#

*;::<=> ?::@; J

?:<:<=<K<:=:QJ?



#J K<K@<=X:<Y:J<Y<

» » [

| | | |
|--------------------------------|-------------------------|------------------------|
| [< J< <K | (1) | 1000 MΩ Min. (DC 500V) |
| JKK <=: | (1) |]?<<K<K : ^X_:'\$j< |
| | |]?<K<K<KJ : ^X_:'\$j< |
| Insulation of IEC 618101 | | |
| Clearance / creepage distances | Bet?een coil to contact | : Basic,!K 1.5 / K 2.5 |
| | Bet?een open contact | : *<K< J |
| Rated insulation voltage | 250V | |



| | |
|---------------------------------|------------|
| Rated impulse withstand voltage | 2500V |
| Pollution degree | 2 |
| Rated voltage | 230 / 400V |
| Overvoltage category | II |

Note: [CJ>J

Safety Approval

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

Safety Approval Rating

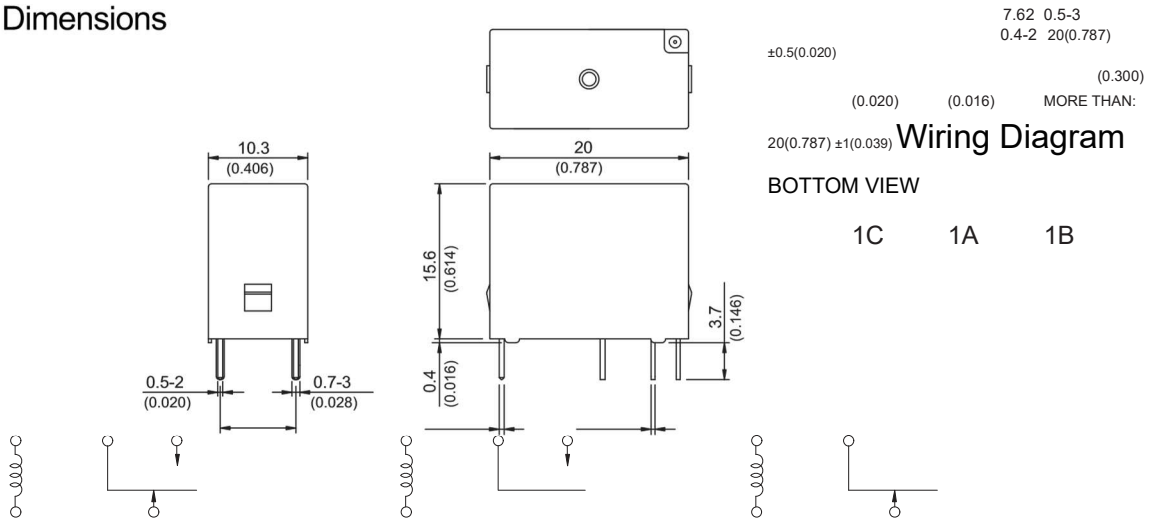
| CSA / CUS | | TUV | |
|--|---|---|--|
| 892 | 892H | 892 | 892H |
| NO 7A 125VAC 5A 277VAC NC 3A 125VAC 3A 277VAC | NO 10A 125VAC 7A 277VAC TV-3 NC 5A 125VAC 5A 277VAC | NO 7A 120VAC 5A 240VAC NC 3A 120VAC 3A 240VAC | NO 10A 120VAC 7A 240VAC NC 5A 120VAC 5A 240VAC |
| VDE | | UL / CUL | |
| 892 | 892H | 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 |

TOLERANCE:
LESS THAN: 1(0.039) ±0.1(0.004)

5(0.197) ±0.3(0.012)



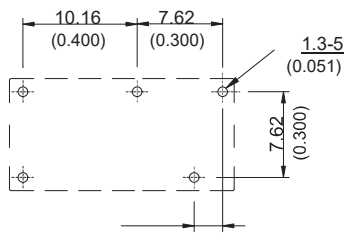
Outline Dimensions



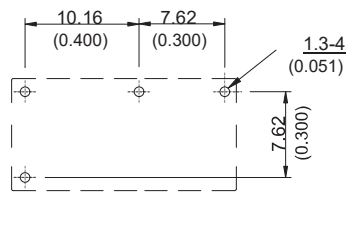
PC Board Layout

BOTTOM VIEW

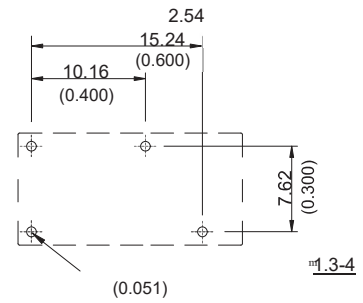
1C



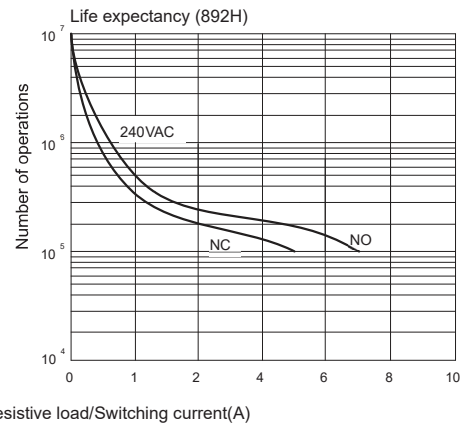
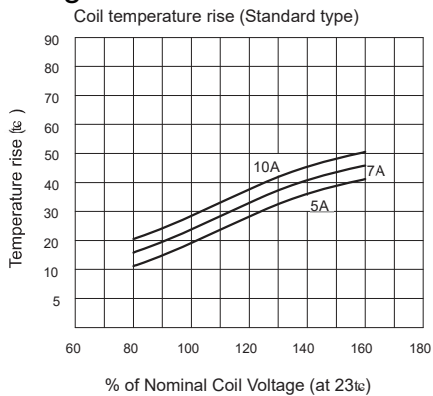
1A



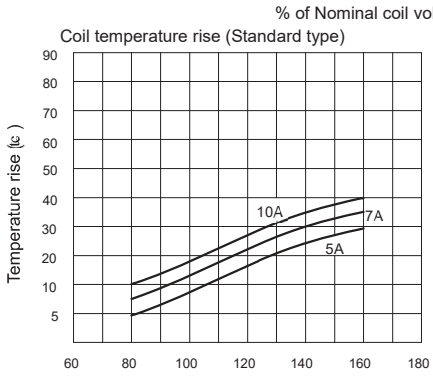
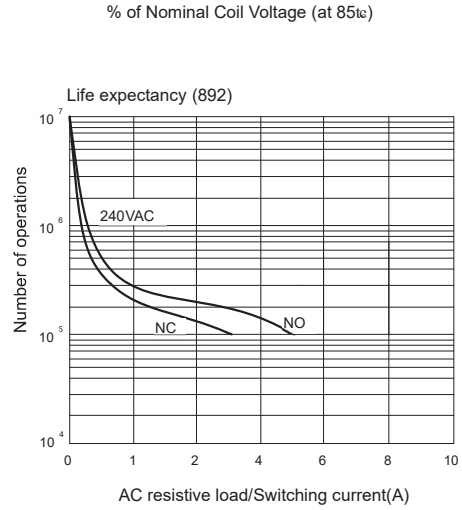
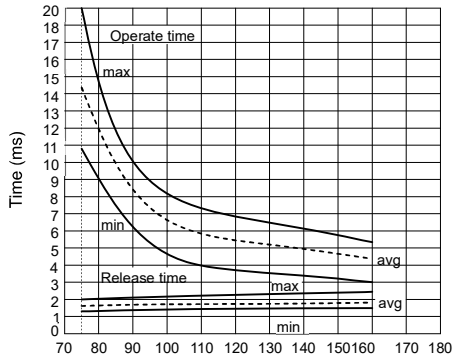
1B



Engineering Data



Operate time/Release time (Standard type)



—^JJ K|K< Q)KK:<=#J K<K@<=<X:<Y—

