



»» Features

- Low cost miniature PCB Power Relays slim type 7mm width.
- 5A 250VAC suitable for PLC and heating element controls.
- High sensitivity coil 200mW, 10KV impulse surge.
- SPST-NO cadmium free contacts.
- Optional for sealed flux free and sealed washable versions.
- High CTI 250 material or product comply with IEC 60335-1 are available.
- 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) | ----- | 202-1AC-C | 202-1AC-V | 202-1AC-S |
| | | F | 202-1AC-F-C | 202-1AC-F-V | 202-1AC-F-S |
| | | ----- | 202-1AH-C | 202-1AH-V | 202-1AH-S |
| | | F | 202-1AH-F-C | 202-1AH-F-V | 202-1AH-F-S |

◆ High Power Type

| | | | | | |
|--------------|--------------|-------|--------------|--------------|--------------|
| PCB terminal | 1A (SPNO) | ----- | 202H-1AC-C | 202H-1AC-V | 202H-1AC-S |
| | | F | 202H-1AC-F-C | 202H-1AC-F-V | 202H-1AC-F-S |
| | | ----- | 202H-1AH-C | 202H-1AH-V | 202H-1AH-S |
| | | F | 202H-1AH-F-C | 202H-1AH-F-V | 202H-1AH-F-S |

◆ High Sensitivity Type

| | | | | | |
|--------------|--------------|-------|--------------|--------------|--------------|
| PCB terminal | 1A (SPNO) | ----- | 202N-1AC-C | 202N-1AC-V | 202N-1AC-S |
| | | F | 202N-1AC-F-C | 202N-1AC-F-V | 202N-1AC-F-S |
| | | ----- | 202N-1AH-C | 202N-1AH-V | 202N-1AH-S |
| | | F | 202N-1AH-F-C | 202N-1AH-F-V | 202N-1AH-F-S |

»» Ordering Information

202 - 1A H - - C
 1 2 3 4 5 6 7 8

1. 202 -- Basic series designation

2. Blank -- Standard type
H -- High power type

3. Blank -- Standard type (360mW)

N -- High sensitivity type (200mW)
(only for 202 type)

4. 1A -- Single pole normally open

5. C -- Contact material AgNi
 CA -- Contact material AgNi + Au
 H -- Contact material AgSnO
 HA -- Contact material AgSnO+ Au

6. Blank -- Standard type
 F -- Class F

7. C -- Flux tight
 V -- Sealed type
 S -- Sealed type washable

8. -- Coil voltage (please refer to the coil rating data for the availability)

»» Contact Rating

| Type | 202N | 202 | 202H |
|---------------------|-----------|-----------------|-----------------|
| Rated load | 3A 240VAC | 5A 240VAC/30VDC | 7A 240VAC/30VDC |
| Max. switch voltage | 277VAC | 277VAC、30VDC | 277VAC、30VDC |
| Max. switch current | 3A | 5A | 7A |

»» Coil Rating (DC)

◆ Standard Type

| Rated voltage (V) | Rated current $\pm 10\%$ at 23°C (mA) | Coil resistance $\pm 10\%$ at 23°C (Ω) | Max. continuous voltage at 70°C | Pick up voltage(Max.) at 23°C | Drop out voltage(Min.) at 23°C | Power consumption at rated voltage |
|-------------------|---------------------------------------|---|---------------------------------|-------------------------------|--------------------------------|------------------------------------|
| 5 | 72 | 69.4 | 160 % of rated voltage | 75 % of rated voltage | 5 % of rated voltage | approx. 0.36W |
| 6 | 60 | 100 | | | | |
| 9 | 40 | 225 | | | | |
| 12 | 30 | 400 | | | | |
| 18 | 20 | 900 | | | | |
| 24 | 15 | 1600 | | | | |

◆ 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 70°C | Pick up voltage(Max.) at 23°C | Drop out voltage(Min.) at 23°C | Power consumption at rated voltage |
|-------------------|---------------------------------------|---|---------------------------------|-------------------------------|--------------------------------|------------------------------------|
| 5 | 40 | 125 | 170 % of rated voltage | 75 % of rated voltage | 5 % of rated voltage | approx. 0.2W |
| 6 | 33.3 | 180 | | | | |
| 9 | 22.5 | 405 | | | | |
| 12 | 16.7 | 720 | | | | |
| 18 | 11.1 | 1620 | | | | |
| 24 | 8.6 | 2880 | | | | |

»» Specification

| | | |
|--------------------------------------|---|--|
| Contact material | AgNi / AgSnO alloy | |
| Contact resistance ⁽¹⁾ | 100mΩ Max. (at 1A (100mA for Au-plating contact) / 6VDC by 4-wire resistance measurement) | |
| Operate time ⁽¹⁾ | 10 ms Max. | |
| Release time ⁽¹⁾ | 10 ms Max. | |
| Insulation resistance ⁽¹⁾ | 1000 MΩ Min. (DC 500V) | |
| Dielectric strength ⁽¹⁾ | Between open contact | : AC 750V , 50/60Hz 1 min. |
| | Between contact and coil | : AC 4000V , 50/60Hz 1 min. |
| Vibration resistance | Operating extremes | 10~55Hz , amplitude 1.5 mm |
| | Damage limits | 10~55Hz , amplitude 1.5 mm |
| Shock resistance | Operating extremes | 10G |
| | Damage limits | 100G |
| Life expectancy | Mechanical | 5,000,000 operations (frequency 18,000 operations/hr) |
| | Electrical | 100,000 operations (frequency 900 operations/hr) |
| Operating ambient temperature | -40~+70°C (no freezing) ⁽²⁾ | |
| Weight | Approx. 4 g | |

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

(2) -40~+85°C is available.

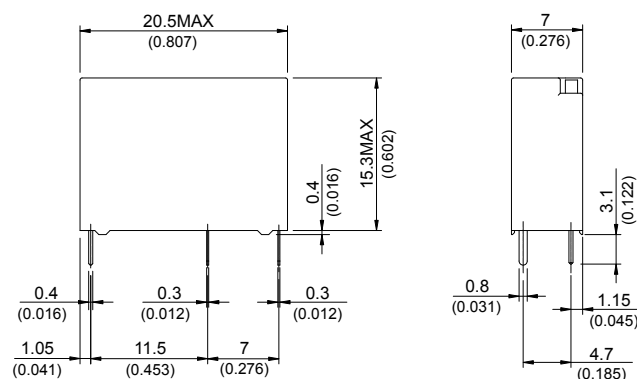
»» Safety Approval

| | | |
|-----------|----------|----------|
| Certified | UL / CUL | VDE |
| File No. | E74321 | 40008369 |

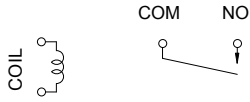
»» Safety Approval Rating

| UL / CUL | | VDE | |
|-----------------------|--|---------------|---------------|
| 202 · 202N | 202H | 202 · 202N | 202H |
| 5A 277VAC 5A 30VDC | 7A 277VAC 7A 30VDC TV-3 (H contact only) | 5A 250VAC T85 | 7A 250VAC T70 |

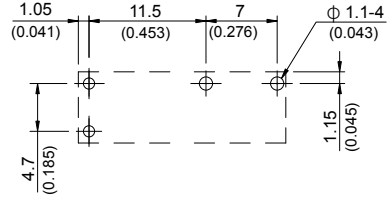
»» Outline Dimensions



»» Wiring Diagram BOTTOM VIEW



»» PC Board Layout BOTTOM VIEW



»» Engineering Data

