

◆ Features

- Small footprint.
- Miniature PCB surge cube relay.
- Reverse contact terminal position version is available.
- SPNO, SPNC, SPDT and Sealed flux free & sealed Washable type are available.

◆ Coil Data [at 20°C]

| Rated voltage (V) | Coil Resistance $\pm 10\%$ (Ω) | Rated Current $\pm 10\%$ (mA) | Pick up Voltage (Max) | Drop out Voltage (Min) | Max continuous Voltage | Power consumption At rated Voltage |
|---------------------|---|-------------------------------|-----------------------|------------------------|---------------------------|------------------------------------|
| 3 | 23 | 130 | 75% of rated voltage | 5% of rated voltage | 150% Max of Rated voltage | Approx.0.4W |
| 5 | 63 | 79 | | | | |
| 6 | 90 | 67 | | | | |
| 9 | 203 | 44 | | | | |
| 12 | 360 | 33 | | | | |
| 18 | 810 | 22 | | | | |
| 24 | 1440 | 17 | | | | |
| 36 | 3240 | 11 | | | | |
| 48 | 5760 | 8 | | | | |

◆ High sensitivity Type

| Rated voltage (V) | Coil Resistance $\pm 10\%$ (Ω) | Rated Current $\pm 10\%$ (mA) | Pick up Voltage (Max) | Drop out Voltage (Min) | Max continuous Voltage | Power consumption At rated Voltage |
|---------------------|---|-------------------------------|-----------------------|------------------------|---------------------------|------------------------------------|
| 3 | 25 | 120 | 75% of rated voltage | 5% of rated voltage | 110% Max of Rated voltage | Approx.0.36W |
| 5 | 70 | 72 | | | | |
| 6 | 100 | 60 | | | | |
| 9 | 225 | 40 | | | | |
| 12 | 400 | 30 | | | | |
| 18 | 900 | 20 | | | | |
| 24 | 1600 | 15 | | | | |
| 36 | 3600 | 10 | | | | |
| 48 | 6400 | 7.5 | | | | |

◆ Contact Rating

| | |
|----------------|--|
| Resistive load | 20A 277VAC, 17A 250VAC, 20A 125VAC, 16A 30VDC, 17A 24VDC, TV-10 125VAC |
|----------------|--|

◆ S22 RELAY

◆ SHORI

◆ Type List

| Terminal style | Contact form | Designation(provided with) | |
|----------------|--------------|----------------------------|----------------------|
| | | Sealed type | Sealed type washable |
| PCB terminal | 1A (SPNO) | S22-12-1A | S22-12-1AS |
| | 1B (SPNC) | S22-12-1B | S22-12-1BS |
| | 1C (SPDT) | S22-12-1C | S22-12-1CS |

◆ Ordering information

S22 - 12 - 1A S
1 2 3 4

1. S22 -- Basic series designation

2. 12 -- Coil Voltage (3V~48V)

12B -- High Sensitivity type

3. 1A -- Form A, normally open (SPNO)

1B -- Form B, normally closed (SPNC)

1C -- Form C, double-throw (SPDT)

4. Blank -- Sealed type

S -- Sealed type washable

◆ Specification

| | | |
|-------------------------------|---|---|
| Contact material | Silver Alloy | |
| Contact resistance | 100m Ω Max | |
| Operate time | 15ms Max | |
| Release time | 10ms Max | |
| Insulation resistance | 100 M Ω Min. (DC 500V) | |
| Dielectric strength | Between open contact : AC 1000V ,50/60Hz 1 min. | |
| | Between contact and coil : AC 2500V, 50/60Hz 1 min. | |
| Vibration resistance | Operating extremes | 10~50Hz, amplitude 1.0 mm |
| | Damage limits | 10~50Hz, amplitude 1.0 mm |
| Shock resistance | Operating extremes | 10G |
| | Damage limits | 100G |
| Life expectancy | Mechanical | 10,000,000 operations (frequency 18,000 operations/hr) |
| | Electrical | 100,000 operations (frequency 360 operations/hr) |
| Operating ambient temperature | -40~+85°C (no freezing) | |
| Weight | Approx.13g | |

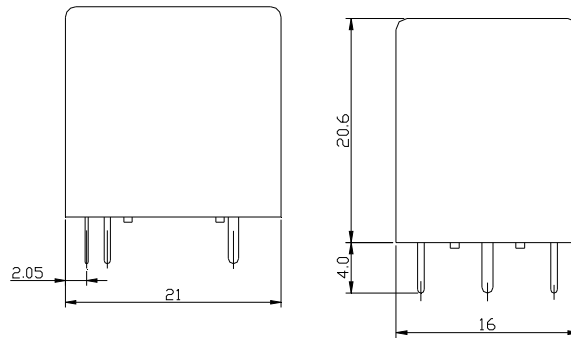
◆ Safety Approval

| | | |
|-----------|---------|-----|
| Certified | UL/CUL | TUV |
| File No. | E188091 | |

◆ Safety Approval Rating

| UL/CUL | | VDE |
|-------------------------|------------------------------------|--|
| 1A | 20A 277VAC 17A 250VAC | 20A 125VAC 17A 250VAC 16A 30VDC 17A 24VDC |
| | 16A 30VDC 17A 24VDC | |
| 20A 125VAC TV-10 125VAC | | |
| 1B | 20A 277VAC 15A 250VAC | |
| | 15A 30VDC 15A 24VDC | |
| | 20A 125VAC TV-8 125VAC | |
| 1C | NO:20A 125VAC 17A 250VAC 16A 30VDC | |
| | NC:16A 125VAC 15A 250VAC 15A 30VDC | |

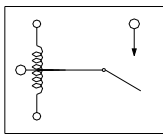
◆ Outline dimensions



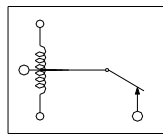
◆ Wiring Diagram

BOTTOM VIEW

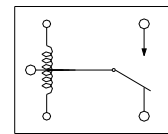
1A



1B



1C



◆ PC BOARD LAYOUT

BOTTOM VIEW

