

Main Feature

1. Single contact and double contacts type offer switching capacity by 15A in small size for exclusive automobile control relay switching box use.
2. Standard and European Specification are available to comply with various electrical specification requirements.
3. Simple magnetic circuit to meet mass production for low cost offer. Standard type is open type without dust cover. If dust cover is required, suitable cased relay can be prepared.
4. Bubble Test conforming to JIS standard will be conducted on the SX type of Relay for checking the Relay sealing.
5. Operating ambient temperature range covers from -30°C to 80°C at no current on Relay's contacts.

Contact Rating

| Load Type | AR (DM) | AR (D) |
|----------------------------|-------------|-------------|
| Rated Load (Resistive) | 3A 120VAC | 3A 120VAC |
| | 10A 12VDC | 10A 12VDC |
| Rated Carrying Current | 10A | 10A |
| Max. Allowable Voltage | AC 120V | AC 120V |
| | DC 28V | DC 28V |
| Max. Allowable Current | 10A | 10A |
| Max. Allowable Power Force | 360VA | 360VA |
| | 120W | 120W |
| Min. Switching Load | DC 5V, 10mA | DC 5V, 10mA |
| Contact Material | Ag Alloy | Ag Alloy |
| Contact Form | SPST | SPDT |

Application

Car Control Switching Box (Alarm System, Automatic Door Locking System....), Car Flashers.... etc.

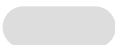
Performance (at Initial Value)

- Contact Resistance 100mΩMax.@1A,6VDC
- Operate Time..... 10 mSec. Max.
- Release Time 10 mSec. Max.
- Dielectric Strength:
Between Coil & Contact 1,000VAC at 50/60 Hz for one minute.
Between Contacts 500VAC at 50/60 Hz for one minute.
- Surge Strength 2,000V (between coil & contact 1x40 μ Sec.)
- Insulation Resistance 100 MegaΩ Min. at 500VDC.
- Max. On/Off Switching :
Electrical 20 Cycles per Minute.
Mechanical..... 300 Cycles per Minute.
- Temperature Range -25~80°C

- Humidity Range45~85% RH.
- Coil Temperature Rise60°C Max.
- Vibration:
Endurance..... 10 to 55 Hz dual amplitude width 1.5mm.
Error Operation 10 to 55 Hz dual amplitude width 1.5mm.
- Shock:
Endurance 1000 m/S².
Error Operation 100 m/S².
- Life Expectancy :
Mechanical 10⁷ Operations at No load condition.
Electrical 10⁵ Operations at Rated Resistive Load.
- Weight.....About 10 g.

Safety Standard & Its File Number

- UL & C-UL.....E141060



Coil Specification (at 20 °C)

| Coil Sensitivity | Nominal Voltage (VDC) | Nominal Current (mA) | Coil Resistance ($\Omega \pm 10\%$) | Power Consumption (W) | Pull-In Voltage (VDC) | Drop-Out Voltage (VDC) | Maximum Allowable Voltage (VDC) |
|------------------|-----------------------|----------------------|---------------------------------------|-----------------------|-----------------------|------------------------|--|
| AR (Standard) | 6 | 150 | 40 | Abt. 0.93 | 80% Maximum | 5% Minimum | 150% (for short time carrying current) |
| | 9 | 93 | 97 | | | | |
| | 12 | 77 | 155 | | | | |
| | 15 | 59 | 255 | | | | |
| | 18 | 47 | 380 | | | | |
| | 24 | 36 | 660 | | | | |
| AR (European) | 6 | 214 | 28 | Abt. 1.1 | 60% Maximum | 5% Minimum | 160% (for short time carrying current) |
| | 12 | 92 | 130 | | | | |
| | 24 | 46 | 520 | | | | |

Ordering Information

AR - SS - 1 12 D M 1

Specification: Nil: Standard
1: European

Contact Form: Nil: One Form C
M: One Form A
B: One Form B
D: DC Coil

Coil Type: 06: 6V, 09: 9V, 12: 12V, 15: 15V, 18: 18V, 24: 24V

Coil Voltage: 06: 6V, 09: 9V, 12: 12V, 15: 15V, 18: 18V, 24: 24V

Number of Pole: 1: One Pole

Type of Sealing: Nil: RT 0 Unclosed Relays
SS: RT II Flux Proofed Relays
SH: RT III Wash Tight Relays

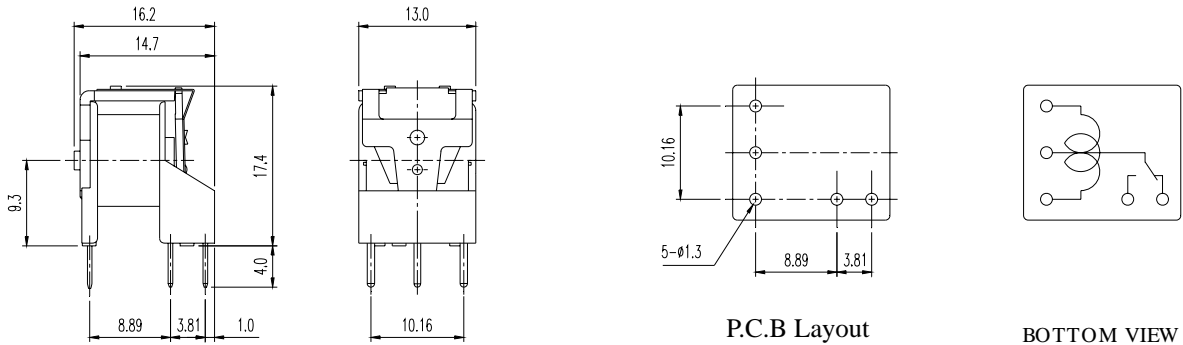
Type: AR

Classification

| Model | AR | | | | | |
|---------------------|------------|-------------|-------------|-------------|--------------|--------------|
| | Standard | | | European | | |
| Contact Form | 1C | 1A | 1B | 1C | 1A | 1B |
| Open Type | AR-1□□D | AR-1□□DM | AR-1□□DB | AR-1□□D1 | AR-1□□DM1 | AR-1□□DB1 |
| Flow Solder Type | AR-SS-1□□D | AR-SS-1□□DM | AR-SS-1□□DB | AR-SS-1□□D1 | AR-SS-1□□DM1 | AR-SS-1□□DB1 |
| Plastic Sealed Type | AR-SH-1□□D | AR-SH-1□□DM | AR-SH-1□□DB | AR-SH-1□□D1 | AR-SH-1□□DM1 | AR-SH-1□□DB1 |

Dimension ($\leq 5\text{mm} \pm 0.2\text{mm}$, $> 5\text{mm} \pm 0.3\text{mm}$, the tolerance of PCB thru hole: $+0.1\text{mm}$)

AR



AR-SS/SH

