

## Main Feature

1. Switching capacity 15A in small size for exclusive automobile control relay switching box use
2. Standard and European Specification available to comply with various requirements
3. Various selections on types of sealing
4. Ambient temperature range covers from -40°C to +85°C
5. Comply with RoHS, REACH and ELV regulations

## Contact Rating

| Load Type                  | ARW (DM)  | ARW (DB)  | ARW (D)   |
|----------------------------|-----------|-----------|-----------|
| Rated Load (Resistive)     | 5A 120VAC | 5A 120VAC | 5A 120VAC |
|                            | 15A 12VDC | 15A 12VDC | 15A 12VDC |
| Rated Carrying Current     | 15A       | 15A       | 15A       |
| Max. Allowable Voltage     | AC 120V   | AC 120V   | AC 120V   |
|                            | DC 28V    | DC 28V    | DC 28V    |
| Max. Allowable Current     | 15A       | 15A       | 15A       |
| Max. Allowable Power Force | 600VA     | 600VA     | 600VA     |
|                            | 180W      | 180W      | 180W      |
| Contact Material           | Ag Alloy  | Ag Alloy  | Ag Alloy  |
| Contact Form               | SPST      | SPST      | SPDT      |

## Application

Lighting Control, Door Lock Control, Power Window Control, Power Door Control, Sunroof Control

## Performance (at Initial Value)

- Contact Resistance ..... 100 mΩ Max. @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 1.2x50μSec.)
- Insulation Resistance ..... 100 MegaΩ Min. at 500VDC
- Max. On/Off Switching:
  - Electrical ..... 20 Cycles per Minute
  - Mechanical ..... 300Cycles per Minute

- Temperature Range ..... -40~+85°C
- Humidity Range..... 45~85% RH.
- Coil Temperature Rise..... 60°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 ..... 1,000 m/S<sup>2</sup>
  - Error Operation ..... 100 m/S<sup>2</sup>
- Life Expectancy:
  - Mechanical ..... 10<sup>7</sup> Operations at No Load condition
  - Electrical ..... 10<sup>5</sup> Operations at Rated Resistive Load
- Weight ..... About 10g

## Safety Standard & 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)              |
|-------------------|-----------------------|----------------------|---------------------------------------|-----------------------|-----------------------|------------------------|--|
| ARW<br>(Standard) | 6                     | 150                  | 40                                    | Abt. 0.93             | 80%<br>Maximum        | 5%<br>Minimum          | 150%<br>(for short time<br>carrying current) |
|                   | 9                     | 93                   | 97                                    |                       |                       |                        |  |
|                   | 12                    | 77                   | 155                                   |                       |                       |                        |  |
|                   | 15                    | 59                   | 255                                   |                       |                       |                        |  |
|                   | 18                    | 47                   | 380                                   |                       |                       |                        |  |
|                   | 24                    | 36                   | 660                                   |                       |                       |                        |  |
| ARW<br>(European) | 6                     | 214                  | 28                                    | Abt. 1.1              | 60%<br>Maximum        | 5%<br>Minimum          | 160%<br>(for short time<br>carrying current) |
|                   | 12                    | 92                   | 130                                   |                       |                       |                        |  |
|                   | 24                    | 46                   | 520                                   |                       |                       |                        |  |

## Ordering Information

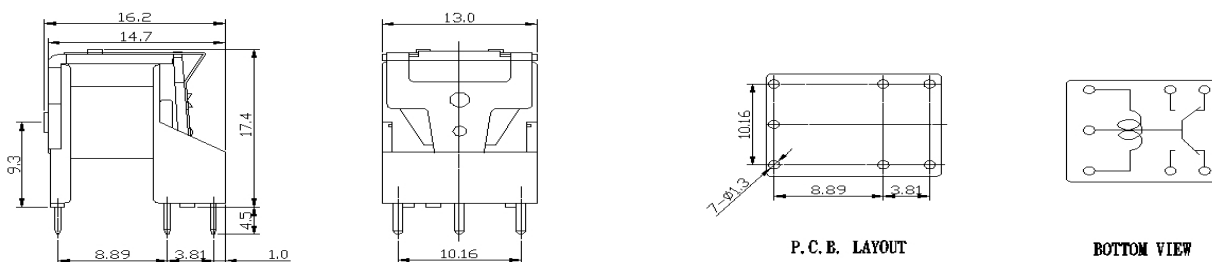
|                       |                         |   |
|-----------------------|-------------------------|---|
| ARW - SS - 1 12 D M 1 | <b>Specification:</b>   | Nil: Standard<br>1: European  |
|                       | <b>Contact Form:</b>    | Nil: One Form C<br>M: One Form A<br>B: One Form B<br>D: Standard DC   |
|                       | <b>Coil Type:</b>       | 06: 6V, 09: 9V, 12: 12V, 15: 15V, 18: 18V, 24: 24V                    |
|                       | <b>Coil Voltage:</b>    |   |
|                       | <b>Number of Pole:</b>  | 1: One Pole   |
|                       | <b>Type of Sealing:</b> | Nil: RT 0 Unclosed<br>SS: RT II Flux Proofed<br>SH: RT III Wash Tight |
|                       | <b>Type:</b>            | ARW   |

## Classification

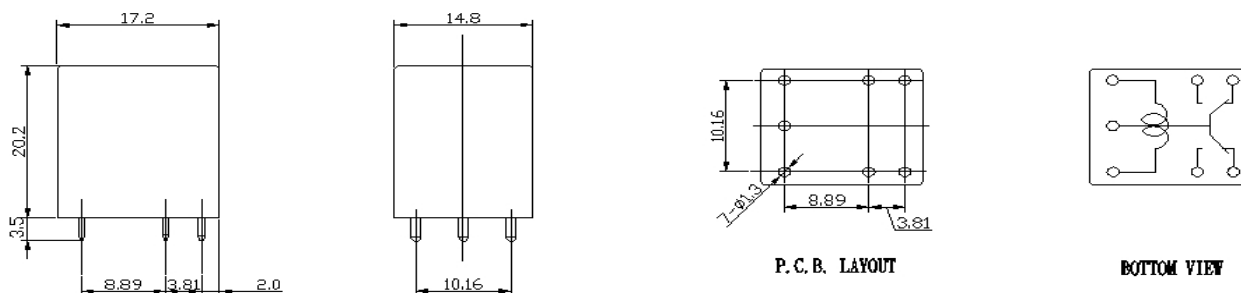
| Model            | ARW         |              |              |              |               |               |
|------------------|-------------|--------------|--------------|--------------|---------------|---------------|
| Coil Sensitivity | Standard    |              |              | European     |               |               |
| Contact Form     | 1C          | 1A           | 1B           | 1C           | 1A            | 1B            |
| Unclosed         | ARW-1□□D    | ARW-1□□DM    | ARW-1□□DB    | ARW-1□□D1    | ARW-1□□DM1    | ARW-1□□DB1    |
| Flux Proofed     | ARW-SS-1□□D | ARW-SS-1□□DM | ARW-SS-1□□DB | ARW-SS-1□□D1 | ARW-SS-1□□DM1 | ARW-SS-1□□DB1 |
| Wash Tight       | ARW-SH-1□□D | ARW-SH-1□□DM | ARW-SH-1□□DB | ARW-SH-1□□D1 | ARW-SH-1□□DM1 | ARW-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:  $+0.1\text{mm}$ )

### ARW



### ARW-SS/SH



V.01DS