

## Main Feature

1. Switching capacity 10A 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	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

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

## 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 .....-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 ..... 1000 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)
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				
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

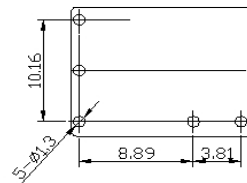
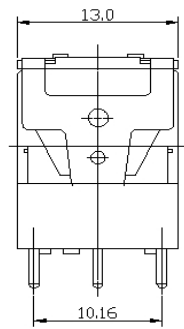
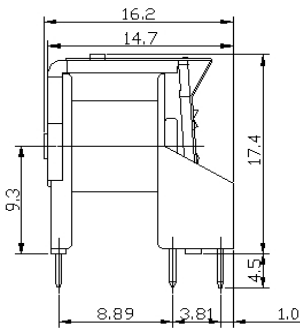
<b>AR - SS - 1 12 D M 1</b>	<b>Specification:</b> <b>Contact Form:</b> <b>Coil Type:</b> <b>Coil Voltage:</b> <b>Number of Pole:</b> <b>Type of Sealing:</b>	<b>Nil:</b> Standard <b>1:</b> European <b>Nil:</b> One Form C <b>M:</b> One Form A <b>B:</b> One Form B <b>D:</b> Standard DC <b>1:</b> One Pole <b>Nil:</b> RT 0 Unclosed <b>SS:</b> RT II Flux Proofed <b>SH:</b> RT III Wash Tight <b>AR</b>
	<b>Type:</b>	

## Classification

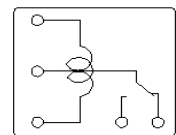
Model	AR					
	Standard			European		
Coil Sensitivity						
Contact Form	1C	1A	1B	1C	1A	1B
Unclosed	AR-1□□D	AR-1□□DM	AR-1□□DB	AR-1□□D1	AR-1□□DM1	AR-1□□DB1
Flux Proofed	AR-SS-1□□D	AR-SS-1□□DM	AR-SS-1□□DB	AR-SS-1□□D1	AR-SS-1□□DM1	AR-SS-1□□DB1
Wash Tight	AR-SH-1□□D	AR-SH-1□□DM	AR-SH-1□□DB	AR-SH-1□□D1	AR-SH-1□□DM1	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

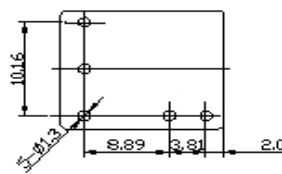
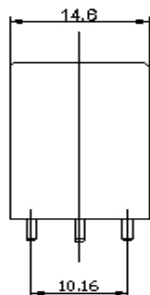
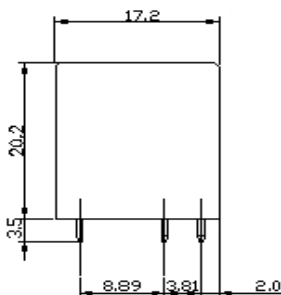


P. C. B. LAYOUT

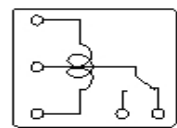


BOTTOM VIEW

### AR-SS/SH



P. C. B. LAYOUT



BOTTOM VIEW

V.01DS