

## Main Feature



1. Slim size(28.0 x 5.0 x 15.0mm).
2. Wide switching capacity 100mA/12VDC~8A/250VAC.
3. Sensitive coil 170mW.
4. 5kV coil-contact, 6 / 8mm clearance/creepage, NO version with 8 / 8mm clearance/creepage on request.
5. Light weight Approx.6g.
6. Reinforced insulation(protection class II).
7. Allows high function-/packing density.
8. Halogen Free series is available.

## Contact Rating

Load Type	LR (DM)	LR (D)
Rated Load (Resistive)	8A 277VAC	8A 277VAC
	8A 30VDC	8A 30VDC
Contact Capacity	Tungsten 1A 277VAC	Tungsten 1A 277VAC (N/O)
	Stand Ballast 1A 277VAC	Stand Ballast 1A 277VAC (N/O)
	1/8 HP 277VAC	1/8 HP 277VAC
	Pilot Duty D300	Pilot Duty D300
Rated Carrying Current	8A	8A
Max. Allowable Voltage	AC 400V	AC 400V
	DC 30V	DC 30V
Max. Allowable Current	8A	8A
Max. Allowable Power Force	2000VA	2000VA
	240W	240W
Contact Material	Ag Alloy	Ag Alloy
Contact Form	SPST	SPDT

## Application

PLC, Factory Machine, Timer / Counter, Temperature Controller, Measuring Instrument, Testing Instrument, OA Equipments...etc.

## Performance (at Initial Value)

- Contact Resistance ..... 100mΩ Max.@1A,6VDC
- Operate Time..... 8 mSec. Max.
- Release Time ..... 4 mSec. Max.
- Dielectric Strength:
  - Between Coil & Contact.....5,000VAC at 50/60 Hz for one minute
  - Between Contacts..... 1,000VAC at 50/60 Hz for one minute
- Surge Resistance ..... 6,000V (between coil & Contact 1.2 / 50μSec.)
- Insulation Resistance ..... 100 MegaΩ Min. at 500VDC.
- Max. On/Off Switching:
  - Electrical ..... 6 Cycles per Minute.
  - Mechanical..... 180 Cycles per Minute.

- Temperature Range ..... -40~85°C
- Humidity Range..... 45~85% RH.
- Temperature Range ..... 40°C Max
- Vibration :
  - Endurance..... 10 to 55 Hz dual Amplitude width 1.5mm
  - Error Operation ..... 10 to 55 Hz dual Amplitude width 1.0mm
- Shock:
  - Endurance..... 1,000 m/S<sup>2</sup>
  - Error Operation..... 100 m/S<sup>2</sup>
- Life Expectancy :
  - Mechanical ..... 5x10<sup>6</sup> Operations at No Load condition.
  - Electrical.....(NO: 5x10<sup>4</sup> ,NC:3x10<sup>4</sup>) Operations at Rated Resistive Load.
- Contact Material ..... Ag Alloy.
- Weight ..... About 6 g.

## Safety Standard & Its File Number

- UL & C-UL ..... E141060 & E175730
- VDE ..... 40029874

## Coil Specification (at 20 °C)

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ( ±10%)	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
LR	3	56.6	53	Abt. 0.17	70% Maximum	5% Minimum	150%
	4.5	37	121				
	5	34	147				
	6	28.3	211				
	9	18.8	476				
	12	14.2	847				
	15	11.3	1,323				
	18	9.4	1,905				
	24	7.1	3,388				
	48	4.5	10,617	Abt. 0.217			
60	3.6	16,590					

## Ordering Information

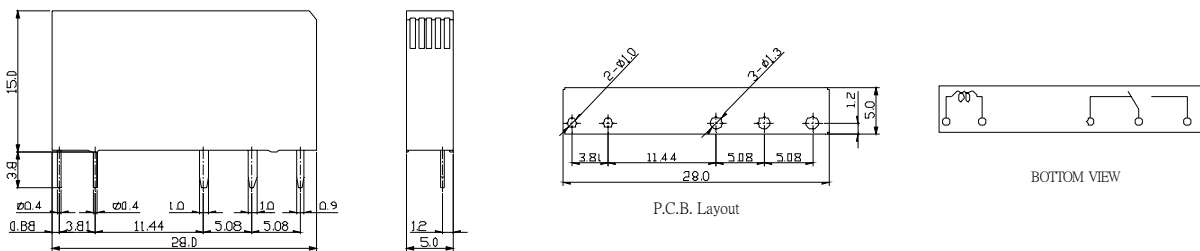
LR - SH - 1 12 D M N - L F	<b>Insulation System:</b>	Nil: Standard Class F: F Class
	<b>Operation function:</b>	Nil: Vertical Mounting L: Level Mounting
	<b>Contact Material:</b>	Nil: AgNi N: AgSnO2 S: AgSnO2 Gilded
	<b>Contact Form:</b>	Nil: One Form C M: One Form A
	<b>Coil Type:</b>	D: Standard DC Coil
	<b>Coil Voltage:</b>	03: 3V, 04: 4.5V, 05: 5V, 06: 6V, 09: 9V, 12: 12V, 15: 15V, 18: 18V, 24: 24V, 48: 48V, 60: 60V
	<b>Number of Pole:</b>	1: One Pole
	<b>Type of Sealing:</b>	SS: RT II Flux Proofed Relays SH: RT III Wash Tight Relays
	<b>Type:</b>	LR

## Classification

Model	LR			
Coil Type	Standard DC Coil			
Contact Form	1C		1A	
Flux Proofed Relays	LR-SS-1□□D/F	LR-SS-1□□D-L/F	LR-SS-1□□DM/F	LR-SS-1□□DM-L/F
Wash Tight Relays	LR-SH-1□□D/F	LR-SH-1□□D-L/F	LR-SH-1□□DM/F	LR-SH-1□□DM-L/F

Dimension (≤5mm±0.2mm, >5mm±0.3mm, the tolerance of PCB thru hole: +0.1mm)

LR-SS/SH-D



LR-SS/SH-D-L

