

»» Features

- 5A general purpose Power Relay.
- DPDT & 4PDT contact configurations.
- AC & DC coil.
- Epoxy sealed type and or flux free type.
- Optional to be equipped with lamp, diode, flashed contact, and flanged cover.
- Complies with RoHS-Directive 2011/65/EU.

»» Type List

Terminal style	Contact form	Designation (provided with)	Enclosure style		
			Straight cover	Flanged cover	Sealed type washable
W (Quick terminal)	4PDT	-----	SCLD-W-B-4PDT-C	SCLD-W-B-4PDT-C1	SCLD-W-B-4PDT-S
	DPDT		SCLB-W-DPDT-C	SCLB-W-DPDT-C1	SCLB-W-DPDT-S
	4PDT	Diode	SCLD-W-B-D-4PDT-C	SCLD-W-B-D-4PDT-C1	SCLD-W-B-D-4PDT-S
	DPDT		SCLB-W-D-DPDT-C	SCLB-W-D-DPDT-C1	-----
	4PDT	Au plating contact	SCLD-W-B-F-4PDT-C	SCLD-W-B-F-4PDT-C1	SCLD-W-B-F-4PDT-S
	DPDT		SCLB-W-F-DPDT-C	SCLB-W-F-DPDT-C1	-----
	4PDT	Lamp	SCLD-W-B-L-4PDT-C	SCLD-W-B-L-4PDT-C1	SCLD-W-B-L-4PDT-S
	DPDT		SCLB-W-L-DPDT-C	SCLB-W-L-DPDT-C1	-----
P (PCB terminal)	4PDT	-----	SCLD-P-B-4PDT-C	-----	SCLD-P-B-4PDT-S
	DPDT		SCLB-P-DPDT-C	-----	-----
	4PDT	Diode	SCLD-P-B-D-4PDT-C	-----	SCLD-P-B-D-4PDT-S
	DPDT		SCLB-P-D-DPDT-C	-----	-----
	4PDT	Au plating contact	SCLD-P-B-F-4PDT-C	-----	SCLD-P-B-F-4PDT-S
	DPDT		SCLB-P-F-DPDT-C	-----	-----
	4PDT	Lamp	SCLD-P-B-L-4PDT-C	-----	SCLD-P-B-L-4PDT-S
	DPDT		SCLB-P-L-DPDT-C	-----	-----
	4PDT	Manual	SCLD-P-B-M-4PDT-C	-----	-----
	DPDT		SCLB-P-M-DPDT-C	-----	-----

»» Ordering Information

SCL B - P - - - DPDT -
 1 2 3 4 5 6 7 8

1. SCL -- Basic series designation

3. P -- PCB terminal

W -- Quick terminal

2. B -- Double pole

D -- Four pole

4. Blank -- Without any special features

B -- Provided with contact barrier

SCLD/SCLB

5. Blank -- No special features
 D -- Diode across coil
 F -- Ag contact with Au plating - 3A rating
 L -- Provided with pilot light
 M -- Provided with manual operator
6. DPDT -- Double pole double throw
 4PDT -- Four pole double throw
7. Blank -- Open type
 C -- Straight cover
 C1 -- Flanged cover
 V -- Sealed type
 S -- Sealed type washable
8. -- Coil voltage (please refer to the coil rating data for the availability)

»» Contact Rating

Resistive load	5A 28VDC	General Use	5A 250VAC
Max. switching current	5A		
Max. switching voltage	250VAC		
Max. switching capacity	1250VA		

»» Coil Rating (DC)

Rated voltage (V)	Rated current $\pm 10\%$ at 23°C (mA)	Coil resistance $\pm 10\%$ at 23°C (Ω)	Max. continuous voltage at 70°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
6	150	40	110 % of rated voltage	75 % of rated voltage	10 % of rated voltage	approx. 0.9W
12	75	160				
15	60	250				
24	37	650				
48	19	2,600				
110	10	11,000				
120	11	11,000				

»» Coil Rating (AC)

Rated voltage (V)	Coil resistance $\pm 10\%$ at 23°C (Ω)	Max. continuous voltage at 70°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
12	40	110 % of rated voltage	85 % of rated voltage	30 % of rated voltage	approx. 1.2VA
24	160				
100	3,400				
110	3,400				
115	3,400				
120	3,400				
220	13,600				
230	13,600				
240	13,600				

»» Specification

Contact material	AgNi alloy	
Contact resistance ⁽¹⁾	50mΩ Max. (at 1A/6VDC by 4-wire resistance measurement)	
Operate time ⁽¹⁾	25 ms Max.	
Release time ⁽¹⁾	25 ms Max.	
Vibration resistance	Operating extremes	10~55Hz , amplitude 1.0 mm
	Damage limits	10~55Hz , amplitude 1.0 mm
Shock resistance	Operating extremes	20G
	Damage limits	100G
Life expectancy	Mechanical	10,000,000 ops. (frequency 18,000 ops./hr)
	Electrical	100,000 ops. (frequency 1,800 ops./hr)
Operating ambient temperature	-25~+70°C (no freezing)	
Weight	Approx. 35 g (LD) · 32 g (LB)	

Note : (1) Initial value. Operate and release time excluding contact bounce.

(2) Unless otherwise specified, all tests are under room temperature and humidity.

(3) Consider the heat of PCB is necessary, please check the actual condition of PCB.

(4) Do not use the relay exceeding the coil rating, contact rating and life expectancy, or this may cause the risk of overheating.

(5) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.

(6) Do not switch the contacts without any load as the contact resistance may become increased rapidly.

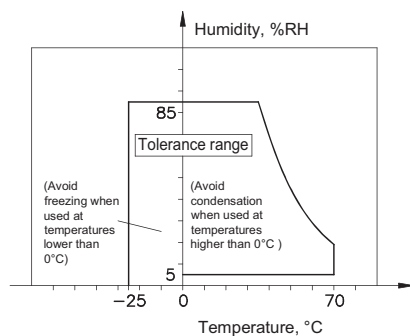
(7) Flux tight version is recommended. If there is cleaning process and sealed type is selected, the vent-hole should be removed after the process.

(8) Use suitable harnesses and bus bars according to the current as below :

5A type : Min. 2.0 mm²

(9) Usage, transport and storage conditions

- 1. Temperature: -25~+70°C
- 2. Humidity: 5 to 85% R.H.
- 3. Pressure: 86 to 106 kPa
- Furthermore, the humidity range varies with the temperature. So, use relays within the range indicated in the graph below.



(10) Please contact Song Chuan for the detailed information.

SCLD/SCLB

»» Insulation Data

Insulation resistance ⁽¹⁾	100 MΩ Min. (DC 500V)
Dielectric strength ⁽¹⁾	Between open contact : AC 500V , 50/60Hz 1 min.
	Between contact and coil : AC 1500V , 50/60Hz 1 min.
	Between contact circuits : AC 1500V , 50/60Hz 1 min.
Insulation of IEC 61810-1	
Clearance / creepage distances	Between coil to contact : Basic, ≥ 1.5mm / ≥ 2.5mm
	Between open contact : Functional
Rated insulation voltage	250V
Rated impulse withstand voltage	2500V
Pollution degree	2
Rated voltage	230 / 400V
Overvoltage category	II

Note : (1) Initial value.

»» Safety Approval

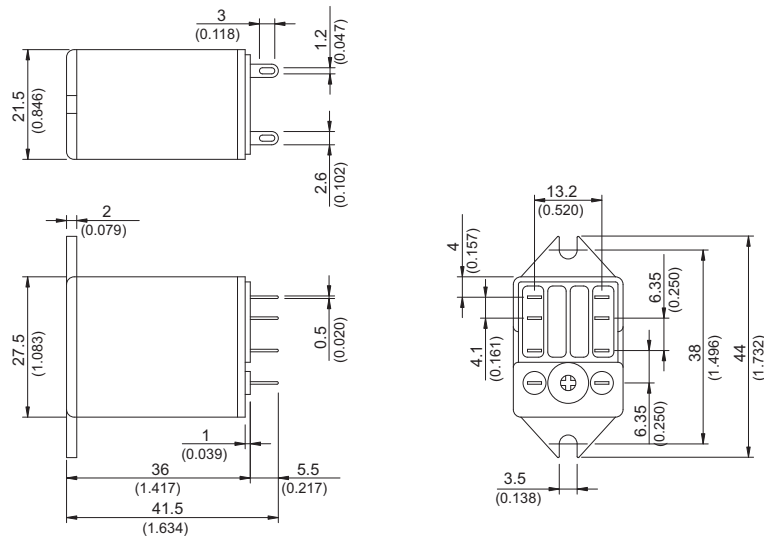
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»» Safety Approval Rating

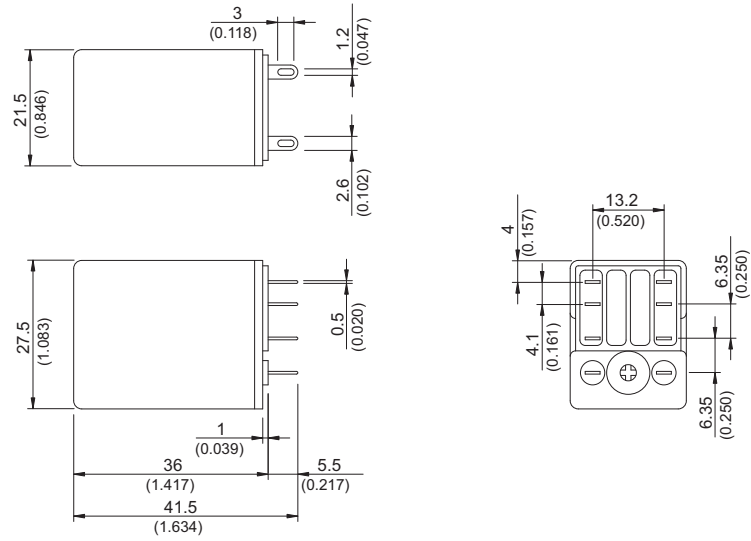
UL / CUL	CSA	UL & CSA (-F)	TUV
5A 250VAC	5A 250VAC	3A 250VAC	5A 250VAC
5A 28VDC	5A 28VDC	3A 30VDC	5A 30VDC
1/8HP 3.8FLA,120VAC			

»» Outline Dimensions

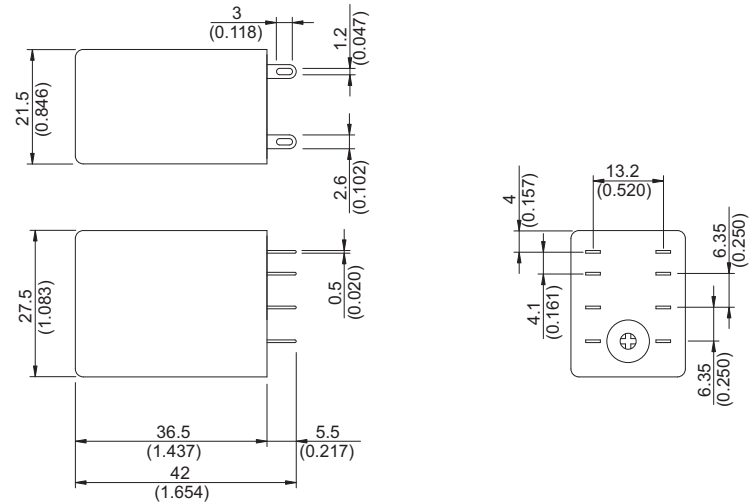
◆LB-W C1



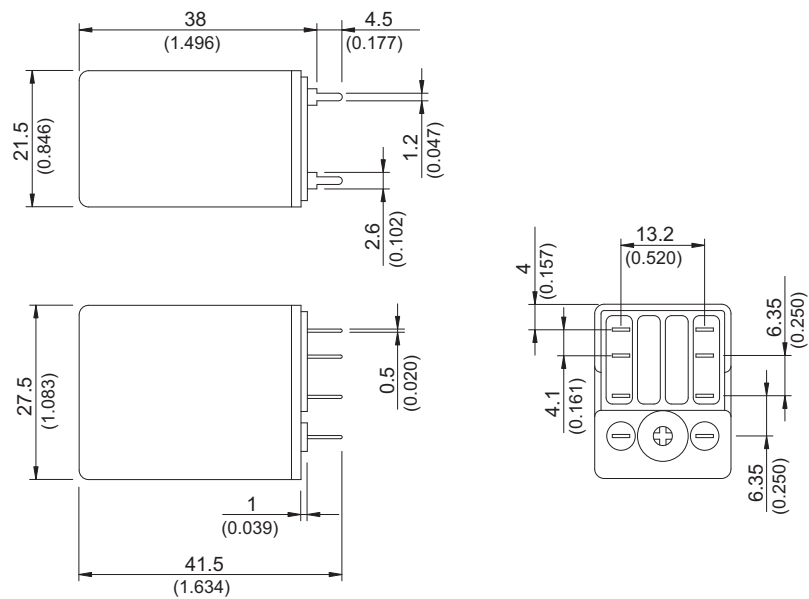
◆LB-W C



◆LB-W S

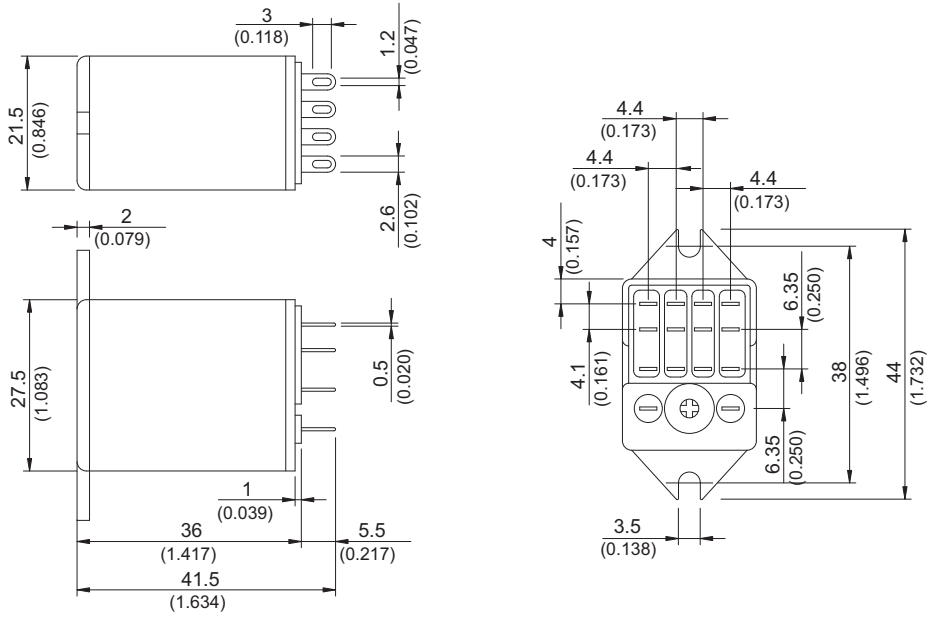


◆LB-P C

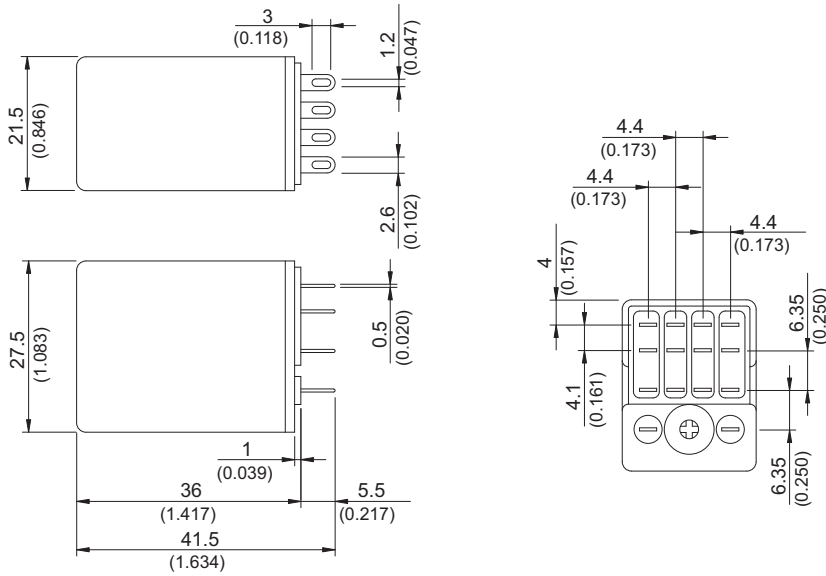


SCLD/SCLB

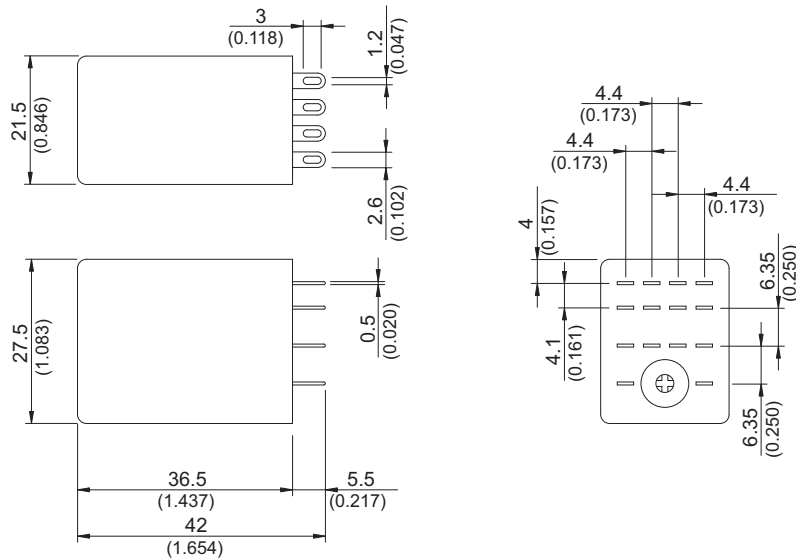
◆LD-W C1



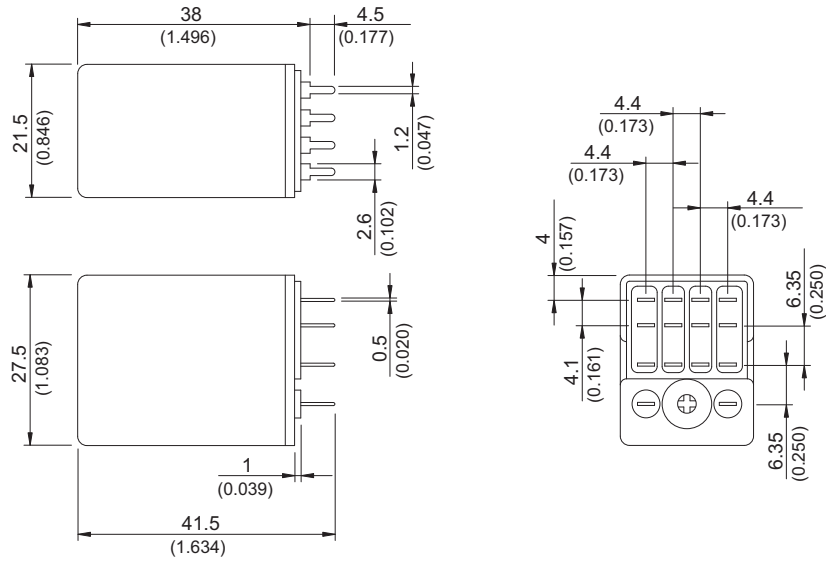
◆LD-W C



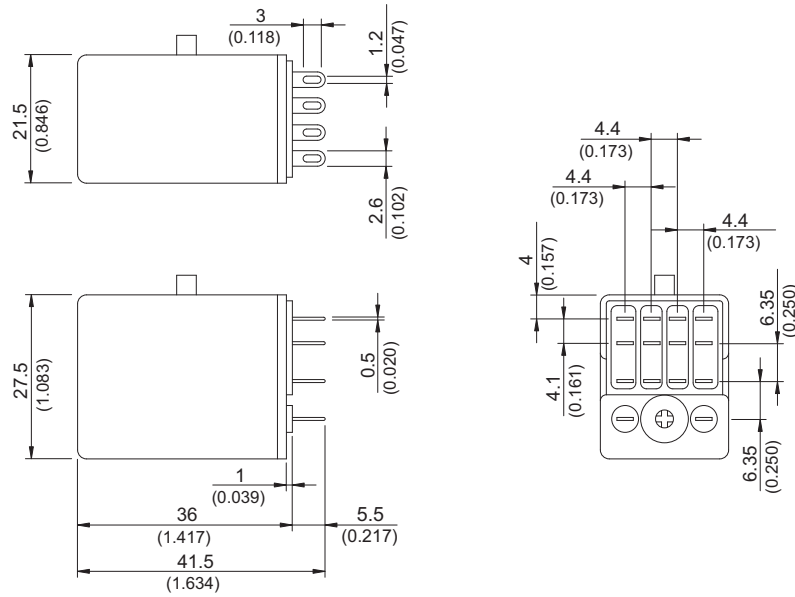
◆LD-W S



◆LD-P C



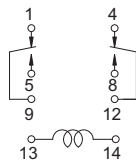
◆LD-W M



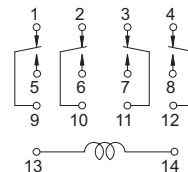
TOLERANCE:
 LESS THAN: 1(0.039) ±0.1(0.004)
 5(0.197) ±0.3(0.012)
 20(0.787) ±0.5(0.020)
 MORE THAN: 20(0.787) ±1(0.039)

»» Wiring Diagram
 BOTTOM VIEW

DPDT



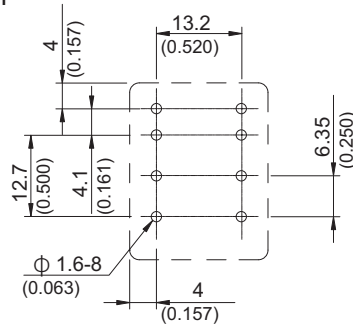
4PDT



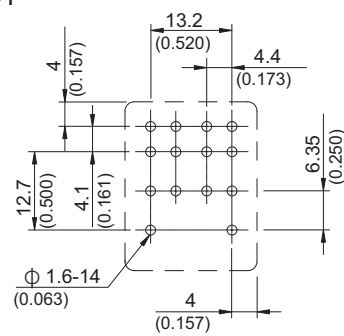
SCLD/SCLB

PC Board Layout BOTTOM VIEW

DPDT

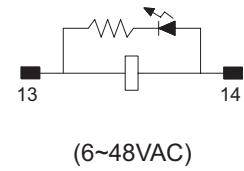
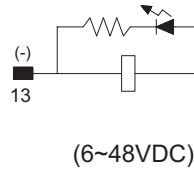
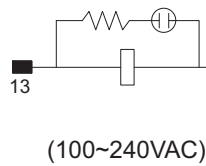


4PDT

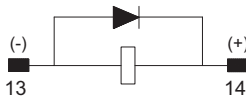


Designation(Provided with) BOTTOM VIEW

Lamp



Diode



Engineering Data

◆DC coil

