

● Features

- 100A Contact switching capability latching relay
- PCB mounting, easy installation
- Multiple ways of pin installation upon request
- Environmental friendly product RoHS compliant
- Dimensions: 58.0 x 40.0 x 20.8 mm



● Application

- Smart Home Application / Electric Meter / Mechanical Electrical Equipment / Automatic Control System, etc.

● Contact Data

Contact Arrangement	1A, 1B
Contact Material	Ag Alloy
Contact Rating	100A 250VAC
Max. Switching Power	25000VA
Max. Switching Voltage	250VAC
Max. Switching Current	100A
Contact Resistance	$\leq 1\text{m}\Omega$ (1A 6VDC)
Max. Short-Circuit Current	1500A / 10ms
Electrical Endurance	1×10^4
Mechanical Endurance	1×10^5

● Coil Parameter (at 23°C)

1 Coil type

Coil Voltage (VDC)		Coil Resistance ($\Omega \pm 10\%$)	Pickup Voltage(max) (VDC)	Release Voltage(max) (VDC)	Coil Power Consumption (W)
Rated	Max.				
6	9.0	16	4.50	4.50	2.25
9	13.5	36	6.75	6.75	

- Coil Parameter (at 23°C)

1 Coil type

Coil Voltage (VDC)		Coil Resistance ($\Omega \pm 10\%$)	Pickup Voltage(max) (VDC)	Release Voltage(max) (VDC)	Coil Power Consumption (W)
Rated	Max.				
12	18.0	64	9.00	9.00	2.25
24	36.0	256	18.0	18.0	

2 Coil type

Coil Voltage (VDC)		Coil Resistance ($\Omega \pm 10\%$)	Pickup Voltage(max) (VDC)	Release Voltage(max) (VDC)	Coil Power Consumption (W)
Rated	Max.				
6	9.0	8/8	4.50	4.50	4.50
9	13.5	18/18	6.75	6.75	
12	18.0	32/32	9.00	9.00	
24	36.0	128/128	18.0	18.0	

- Operation Condition

Insulation Resistance (initial)		1000M Ω (500VDC)
Dielectric Strength	Between Contacts	50/60Hz 2000VAC
	Between Contact and Coil	50/60Hz 4000VAC
Surge Voltage (Between Contact and Coil)		20KVAC (1.2 / 50 μ s)
Shock Resistance	Functional	98m/s ²
	Endurance	980m/s ²
Vibration Resistance		10~55Hz double amplitude 1.5mm
Creepage Distance		8mm
Ambient Temperature		-40 ~ +70°C
Operate Time		≤ 25 ms
Release Time		≤ 25 ms

Latching Relay I LB



RELAY / ISO9001 / IATF16949 CERTIFIED

● Operation Condition

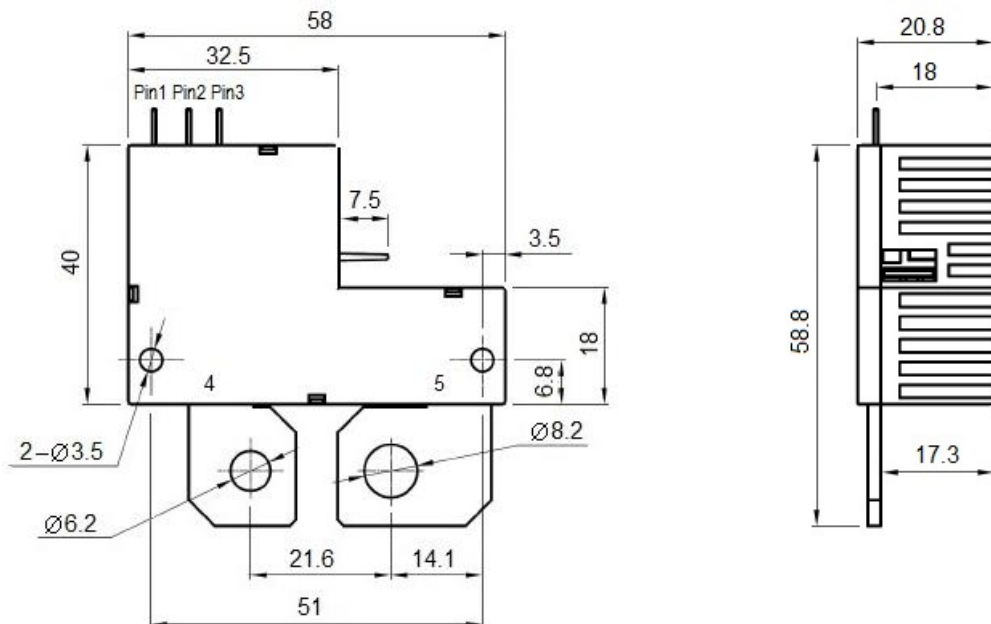
Relative Humidity	5%~85%
Weight	Approx. 95g

● Ordering Information

	LB	-12D	2	-A	100	(XXX)
Model						
Coil Voltage	6, 9, 12, 24 VDC					
Coil Sort	Nil: 1 coil 2: 2 coils					
Contact Arrangement	A: 1 Form A B: 1 Form B					
Contact Current	100: 100A					
Special Code	Nil: Standard XXX: Customer special requirement					

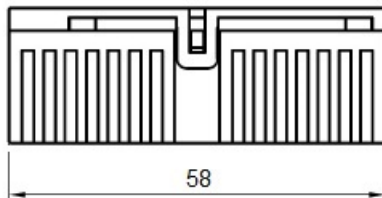
● Dimensions (UNIT: mm)

Outline Dimensions and Mounting

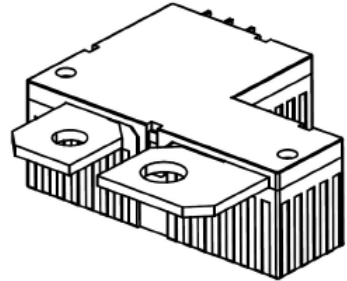


● Dimensions (UNIT: mm)

Outline Dimensions and Mounting

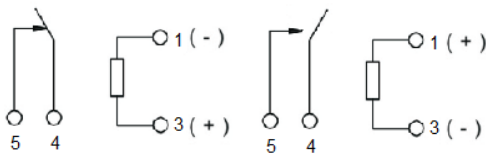


Diagrammatic Sketch



Wiring Diagram (Bottom views)

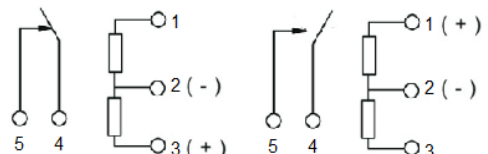
1 Coil, 1 Form A



Set

Reset

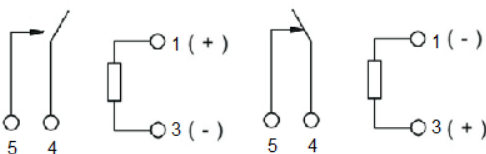
2 Coil, 1Form A



Set

Reset

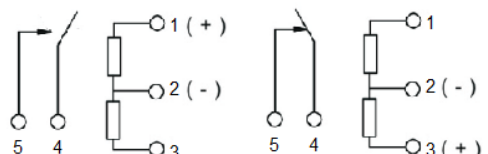
1 Coil, 1 Form B



Set

Reset

2 Coil, 1Form B



Set

Reset

Remark: 1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $>1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $>5\text{mm}$, tolerance should be $\pm 0.5\text{mm}$.

2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

Notice

1. The data shown above are initial values.
2. Relay is on the "reset" or "set" status when being released from stock, with the consideration of shock risen from transit and relay mounting, relay would be changed to "set" or "reset" status, therefore, when application (connecting the power supply), please reset the relay to "set" or "reset" status on request.

3. Do not energize voltage to “set” coil and “reset” coil simultaneously. And also long energized time (more than 1 min) should be avoided.
4. Normally the load terminals are not suitable for reflow solder, wave solder or tin solder, we suggest use spot welding. Load terminals shall be prevented from assemble stress, or freely move.
5. Relays used for metering measuring applications are usually made with dust proof structure, while most relays could be made specially per customer's specific requirements. No longer than 6 months' storage time is recommended for this kind of relay, and please pay attention to the storage environment. To ensure contact reliability, we will keep contact status be closed when delivery if no special required by customer.

Disclaimer

The specification is for reference only. See to “Terminology and Guidelines” for more information. Specifications subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact IOEC for the technical service. However, it is the user's responsibility to determine which product should be used only.

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