- ## Features

    - Latching relay
    - 50A switching capability
    - Both 1 coil and 2 coils available
    - Contact on and off can be controlled by manual control switch
    - 4KV dielectric strength between coil and contacts
    - Environmental friendly product RoHS compliant
    - Dimensions: 39.0 x 15.0 x 30.2 mm

- ## Application

    - Electric Meter / Lighting Control / Smart Home Application, etc.

- ## Contact Data

Contact Arrangement	1A, 1B
Contact Material	Ag Alloy
Contact Rating	50A 250VAC
Max. Switching Power	12500VA
Max. Switching Voltage	440VAC
Max. Switching Current	50A
Contact Resistance (Initial)	$\leqq$1.8mΩ (12VDC 1A)
Electrical Endurance	1×10^4
Mechanical Endurance	3×10^5

- ## Coil Parameter (at 23℃)

    ### 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	18	4.2	4.2	2

● Coil Parameter (at 23℃)

1 Coil type

Coil Voltage (VDC)		Coil Resistance (Ω±10%)	Pickup Voltage(max) (VDC)	Release Voltage(max) (VDC)	Coil Power Consumption (W)
Rated	Max.				
9	13.5	40	6.3	6.3	
12	18.0	72	8.4	8.4	2
24	36.0	288	16.8	16.8	

2 Coils type

Coil Voltage (VDC)		Coil Resistance (Ω±10%)	Pickup Voltage(max) (VDC)	Release Voltage(max) (VDC)	Coil Power Consumption (W)
Rated	Max.				
6	9.0	9 / 9	4.50	4.50	
9	13.5	20 / 20	6.75	6.75	4
12	18.0	36 / 36	9.00	9.00	
24	36.0	144 / 144	18.00	18.00	

● Operation Condition

Insulation Resistance (initial)		1000MΩ (500VDC)
Dielectric Strength	Between Contacts	1500VAC, 1min
	Between Contact and Coil	4000VAC, 1min
Shock Resistance	Functional	98m/s^2
	Endurance	980m/s^2
Vibration Resistance		10~55Hz double amplitude 1.5mm
Ambient Temperature		-40 ~ +85℃
Operate Time		≦20ms
Release Time		≦20ms

● Operation Condition

Relative Humidity	5%~85%
Weight	Approx. 30.2g

● Ordering Information

	L4	M	-12D	2	R	-A	-S	(XXX)
Model								
Component	**Nil**: Without manual switch							
	M: With manual switch							
Coil Voltage	6, 9, 12, 24 VDC							
Coil Sort	**Nil**: 1 coil **2**: 2 coils							
Polarity	**Nil**: Standard polarity **R**: Reverse polarity							
Contact Arrangement	**A**: 1 Form A **B**: 1 Form B							
Construction	**Nil**: Flux tight **S**: Sealed (only for without manual switch type)							
Special Code	**Nil**: Standard **XXX**: Customer special requirement							

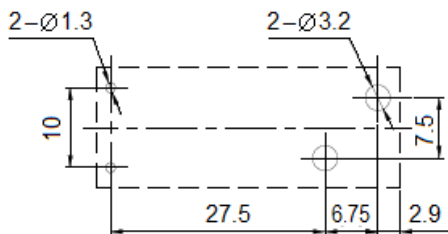## ● Dimensions (UNIT: mm)

Outline Dimensions

Hand control switch
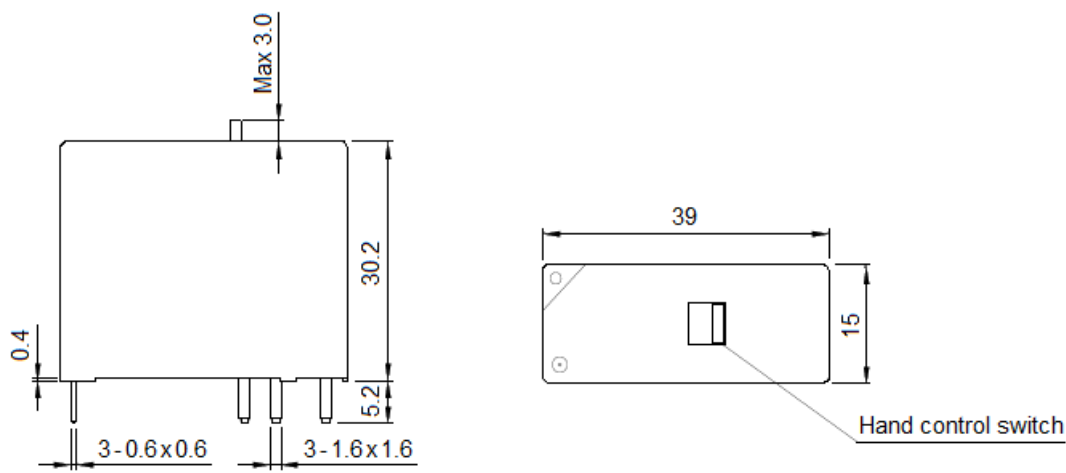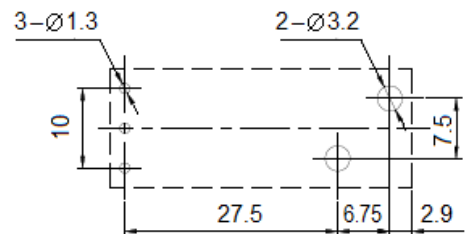
● Dimensions (UNIT: mm)

Mounting (Bottom views)

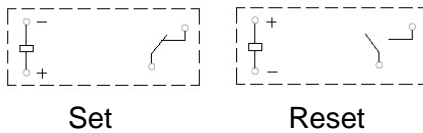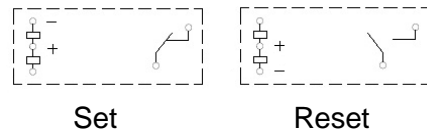1 Form A and 1 Form B type

1 Coil

2 Coils

Wiring Diagram (Bottom views)

Standard Polarity

1 Coil, 1 Form A

Set   Reset
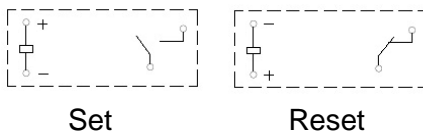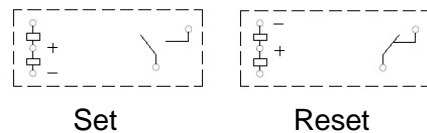
2 Coils, 1Form A

Set   Reset

1 Coil, 1 Form B

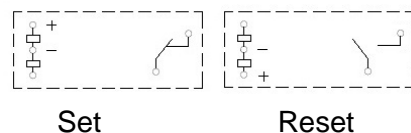Set   Reset

2 Coils, 1Form B

Set   Reset

Reverse Polarity

1 Coil, 1 Form A

Set   Reset

2 Coils, 1Form A

Set   Reset

● Dimensions (UNIT: mm)

Wiring Diagram (Bottom views)

Reverse Polarity

1 Coil, 1 Form B		2 Coils, 1Form B	
Set	Reset	Set	Reset
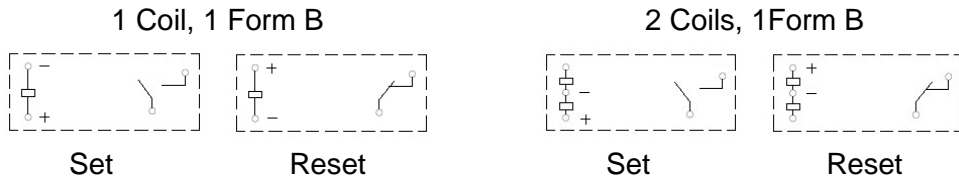
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension $\leqq$ 1mm, tolerance should be $\pm$0.2mm; outline dimension >1mm and <5mm, tolerance should be $\pm$0.3mm; outline dimension $\geqq$ 5mm, tolerance should be $\pm$0.5mm.

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

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.