● Features

- Latching relay

- 20A switching capability

- Low height 15.8mm

- Both 1 coil and 2 coils available

- High sensitive, coil power consumption 250mW

- 4KV dielectric strength between coil and contacts

- Environmental friendly product RoHS compliant

- Dimensions: 24.0 x 10.0 x 15.8 mm

● Application

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

● Contact Data

Contact Arrangement	1A, 1B
Contact Material	Ag Alloy
Contact Rating	16A 250VAC
	20A 250VAC
Max. Switching Power	4000VA
Max. Switching Voltage	277VAC
Max. Switching Current	20A
Contact Resistance	$\leqq 50m\Omega$
Electrical Endurance	9×10^4 (16A 250VAC, 1s on 9s off)
	5×10^4 (20A 250VAC, 1s on 9s off)
	5×10^4 (600W 120VAC, LED lamp load, 1s on 9s off)
	2.5×10^4 (TV-8, 1s on 9s off)
Mechanical Endurance	1×10^6

● 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.				
3	4.5	36	2.25	2.25	0.25
5	7.5	100	3.75	3.75	
6	9.0	144	4.50	4.50	
9	13.5	324	6.75	6.75	
12	18.0	576	9.00	9.00	
24	36.0	2304	18.00	18.00	

2 Coil type

Coil Voltage (VDC)		Coil Resistance (Ω±10%)	Pickup Voltage(max) (VDC)	Release Voltage(max) (VDC)	Coil Power Consumption (W)
Rated	Max.				
3	4.5	18/18	2.25	2.25	0.5
5	7.5	50/50	3.75	3.75	
6	9.0	72/72	4.50	4.50	
9	13.5	162/162	6.75	6.75	
12	18.0	288/288	9.00	9.00	
24	36.0	1152/1152	18.00	18.00	

● Operation Condition

Insulation Resistance (initial)		1000MΩ (500VDC)
Dielectric Strength	Between Contacts	1000VAC, 1min
	Between Contact and Coil	4000VAC, 1min
Shock Resistance	Functional	98m/s^2
	Endurance	980m/s^2

● Operation Condition

Vibration Resistance	10~55Hz double amplitude 1.5mm
Ambient Temperature	-40 ~ +85℃
Operate Time	≦15ms
Release Time	≦15ms
Relative Humidity	5%~85%
Weight	Approx. 8g

● Ordering Information

	L3	-12D	2	R	-A	-S	(XXX)
Model							
Coil Voltage	3, 5, 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						
Special Code	**Nil**: Standard **XXX**: Customer special requirement						

● Dimensions (UNIT: mm)

Outline Dimensions
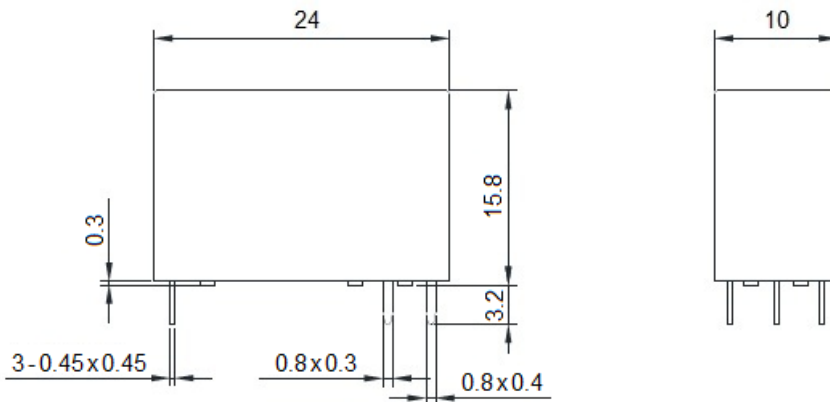
● Dimensions (UNIT: mm)

Mounting (Bottom views)

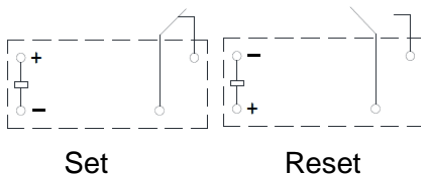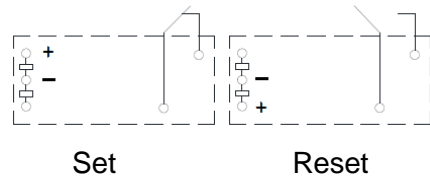| 1 Coil	2 Coil
5-Ø1.3	4-Ø1.3
7.5	7.5
1.5 17.5 3.5	1.5 17.5 3.5
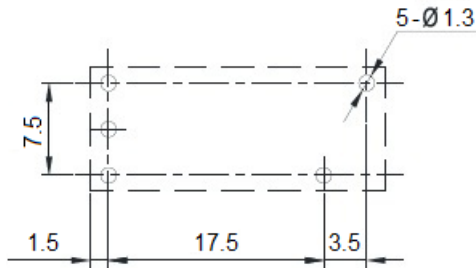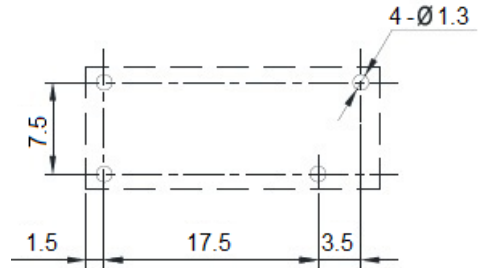
Wiring Diagram (Bottom views)

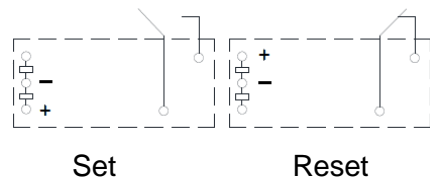Standard Polarity

1 Coil, 1 Form A   2 Coil, 1Form A

Set   Reset   Set   Reset

1 Coil, 1 Form B   2 Coil, 1Form B

Set   Reset   Set   Reset
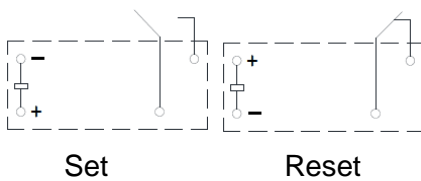
Reverse Polarity

1 Coil, 1 Form A   2 Coil, 1Form A
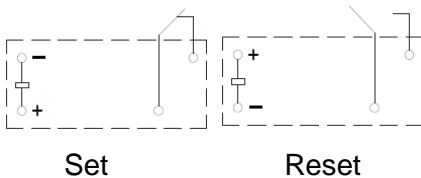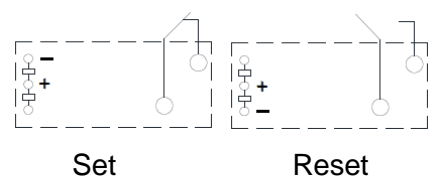
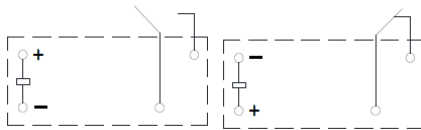Set   Reset   Set   Reset

● Dimensions (UNIT: mm)

Wiring Diagram (Bottom views)
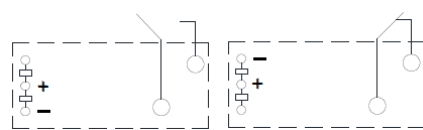
Reverse Polarity

1 Coil, 1 Form B

Set　　　　Reset
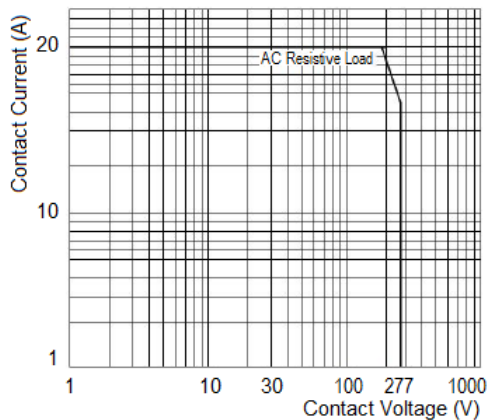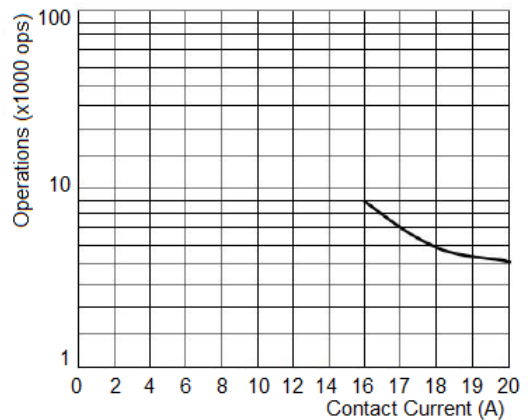
2 Coil, 1Form B

Set　　　　Reset

● Engineering Data

Maximum Switching Power

Endurance Curve

Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≦1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≦5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.5mm.

2) The tolerance without indicating for PCB layout is always ±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.