

Latching Relay

TRL4-90

- 90A switching capacity
- According to IEC62055-31: UC2
- Dielectric strength 4kv (coil to contacts)
- High vibration resistance
- Environmentally friendly products (RoHS Compliant)
- Dimension: 38mm × 30mm × 16.5mm



Ordering information

TRL4	—	90	L1	H	R/	12VDC	(A)	(XXX)
1		2	3	4	5	6	7	8
1. Relay Model							5. Nil: Positive polarity	
2. Contact Load: 90A							R: Negative polarity	
3. Coil Power: L1: Single coil, 1.5W							6. Coil Nominal Voltage: 5, 6, 9, 12, 24, 48VDC	
L2: 2-Dual coil, 3.0W							7. Customized requirements	
4. Contact Form: H: 1A							A: Coil: Type A	
D: 1B							B: Coil: Type B	
							8. Nil:None: Standard type	
							XXX customer special requirements	

Coil data (at 20°C)

Nominal Voltage (VDC)	5	8	9	12	24	48	Single coil 1.5W
Coil Resistance (Ω ± 10%)	16	24	54	96	384	1536	
Nominal Voltage (VDC)	5	8	9	12	24	48	Dual coil 3W
Coil Resistance (Ω ± 10%)	8+8	12+12	27+27	48+48	192+192	768+768	
Release Voltage (VDC)	70% (max)						
Operate Voltage (VDC)	70% (max)						
Rectangular Pulse Width (ms)	100ms						

Contact data

Contact Form	1H/1D
Contact Material	Silver alloy
Load	90A 250VAC
Max Switching Voltage	250VAC
Max Switching Current	90A
Max Switching Power	22500 VA

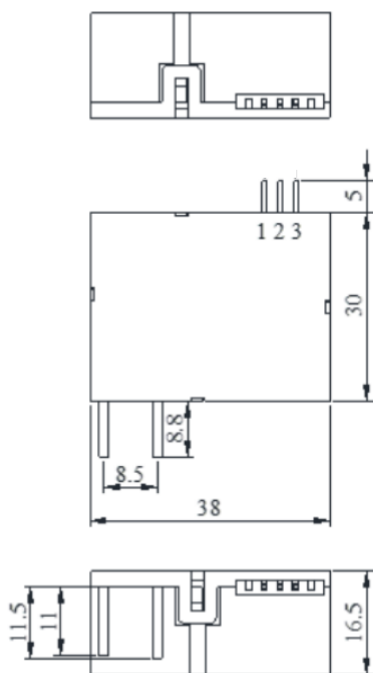
Contact Resistance	1m Ω Max	
Electrical Durability	On/off time (S): 10:20	10,000 times
Mechanical endurance	100,000 ops (30 cycles/ min)	

■ Characteristics data

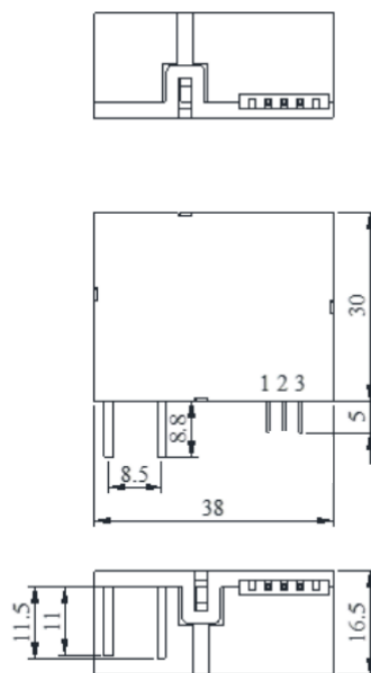
Insulation Resistance	1000M Ω Min at 500VDC
Dielectric Strength Between Open Contacts	2000VAC (1min)
Dielectric Strength Between Contacts and coil	4000VAC (1min)
Operate Time	≤ 20 ms
Release Time	≤ 20 ms
Temperature Range	-40℃to+85℃
Shock Resistance	Functional: 10G
	Destructive: 100G
Vibration Resistance	10-55Hz, 1.5mm
Humidity	98%RH, 40℃
Weight	Approx. 50g

■ Outline dimensions (Unit: mm)

Type A



Type B



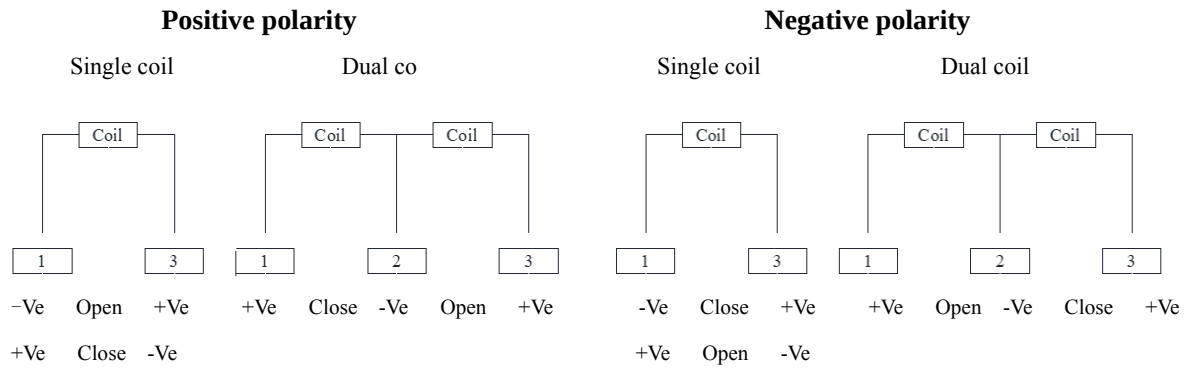
For single coil product ,the pin“2” is removed, the distance between pin “1” and pin “3” is 5mm

For double coil product, pin “1” and pin “2”, pin “2” and pin “3” is 5mm

Remark: 1) In case the tolerance is not shown in outline dimension, the tolerance should be ± 0.2 mm for outline dimension ≤ 1 mm;
 ± 0.3 mm for outline dimension: 1~5mm and ± 0.4 mm for outline dimension > 5 mm;
2)The tolerance without indication is always ± 0.1 mm for the dimension of PCB layout.

■ Wiring diagram

TRL4 SERIES LATCHING RELAY



Notice:

1. 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.
2. Do not energize voltage to “set” coil and “reset” coil simultaneously. And also long energize time (more than 1 min) should be avoided.
3. 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 assembly stress, or freely move.
4. Keep away from corrosive gas and other condition which may damage the relay.

Disclaimer:

The specification is just for reference and 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 Tianbo for the technical service. However, it is the user’s responsibility which product should be used only.

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