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Latching Relay





[illegible]



# Latching Relay TRW2

## MAIN FEATURES

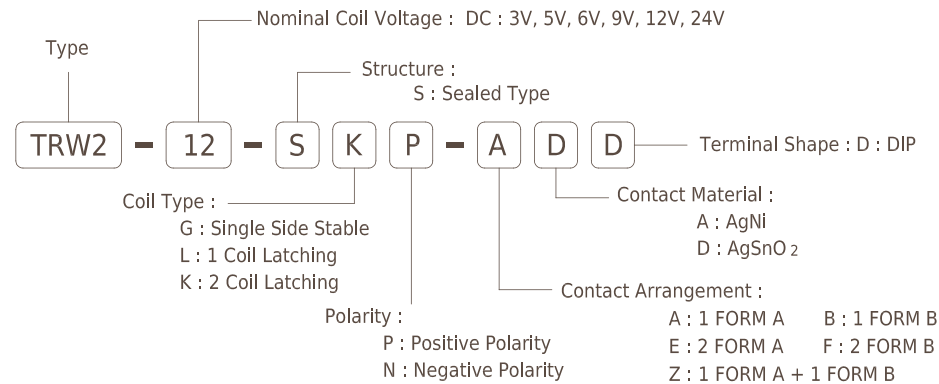
- High switching capacity  
10A 250VAC / 8A 250VAC/30VDC
- High Sensitive.
- 4KV dielectric strength (between coil and contacts).
- Single side stable and latching type available.
- 1 Form A, 2 Form A contact arrangement.
- Environmental friendly product (RoHS compliant).
- Outline Dimensions: 20.0 x 15.0 x 10.2 mm.



## APPLICATIONS

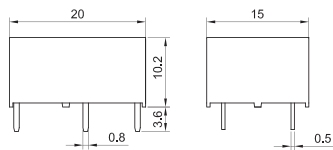
- Electricity Meter.
- Time Switches.
- Ripple Control receiver.
- Lighting Control.

## ORDERING INFORMATION

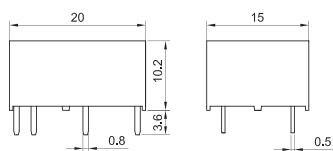


## DIMENSION(unit:mm)

Single Side Stable/ 1 Coil Latching



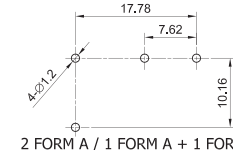
2 Coil Latching



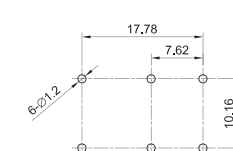
## DRILLING(unit:mm)

Single Side Stable/ 1 Coil Latching

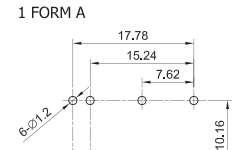
1 FORM A



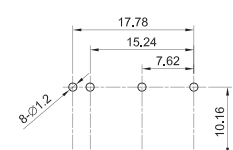
2 FORM A / 1 FORM A + 1 FORM B



2 Coil Latching



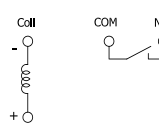
2 FORM A / 1 FORM A + 1 FORM B



## WIRING DIAGRAM

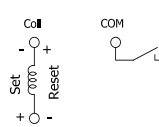
Single Side Stable/

1 Form A



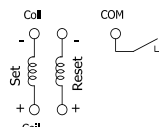
1 Coil Latching

1 Form A

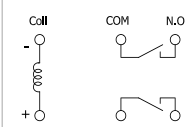


2 Coil Latching

1 Form A

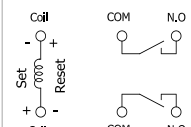


2 Form A

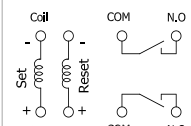


(De-energized Position)

2 Form A

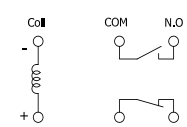


2 Form A

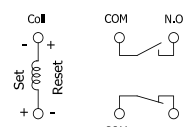


(Reset Position)

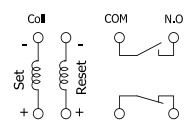
1 Form A + 1 Form B



1 Form A + 1 Form B



1 Form A + 1 Form B



## COIL DATA CHART(at 20°C )

TRW2	Coil Voltage (VDC)	Coil Resistance ( Ω ) ± 10%	Pick-up voltage(VDC)	Drop-out voltage(VDC)	Coil Power(mW)
Single side stable ( G Type ) 1 Form A, 1A+1B	3	45	2.1	0.3	200
	5	125	3.5	0.5	
	6	180	4.2	0.6	
	9	405	6.3	0.9	
	12	720	8.4	1.2	
Single side stable ( G Type ) 2 Form A	24	2880	16.8	2.4	280
	3	32.1	2.1	0.3	
	5	89.3	3.5	0.5	
	6	129	4.2	0.6	
	9	289	6.3	0.9	
	12	514	8.4	1.2	
	24	2056	16.8	2.4	

TRW2	Coil Voltage (VDC)	Coil Resistance( Ω ) ± 10%	Set voltage(VDC)	Reset voltage(VDC)	Coil Power(mW)
1 Coil Latching ( L Type )	3	45	2.1	-2.1	200
	5	125	3.5	-3.5	
	6	180	4.2	-4.2	
	9	405	6.3	-6.3	
	12	720	8.4	-8.4	
2 Coil Latching ( K Type )	24	2880	16.8	-16.8	280
	3	32.1 + 32.1	2.1	2.1	
	5	89.3 + 89.3	3.5	3.5	
	6	129 + 129	4.2	4.2	
	9	289 + 289	6.3	6.3	
	12	514 + 514	8.4	8.4	
	24	2056 + 2056	16.8	16.8	

## CONTACT RATING

Item	TRW2		
	1 Form A	2 Form A	( 1 Form A + 1 Form B )
Contact Rating	10A 250VAC 10A 30VDC 1/4 HP 125VAC 1/3 HP 250VAC	8A 250VAC 8A 30VDC 1/4 HP 125VAC 1/3 HP 250VAC	8A 250VAC 8A 30VDC 1/4 HP 125VAC
Max. Switching Voltage	277VAC		
Max. Switching Current	10A	8A	
Max. Switching Power	2500VA	2000VA	
Contact Material	Silver Alloy		

## PERFORMANCE(at initial value)

Item	TRW2
Contact Resistance	50mΩ (at 1A 6VDC)
Operation Time(at nomi. Volt.)	10ms max.
Release (Reset) Time(at nomi. Volt.)	10ms max.
Dielectric Strength	Between open contacts 1000VAC (1 minute) Between coil & contacts 4000VAC (1 minute)
Pulse width of coil	50ms min. (Recommend: 100ms to 200ms)
Max. operate frequency (under rated load)	20 cycles / min.
Temperature rise(at nomi.volt.)	50K max.
Vibration Resistance	10 to 55Hz D.A. : 1.5mm
Shock Resistance	98m/s <sup>2</sup>
Humidity	5% to 85% RH
Ambient Temperature	-40°C to +70°C
Life Expectancy	Mechanically 1 × 10 <sup>7</sup> ops. (no load) Electrically 1 × 10 <sup>5</sup> ops. (2 Form A : 3 × 10 <sup>4</sup> ops.)
Weight	Abt. 6g.

## NOTICE

- 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.
- In order to maintain "set" or "reset" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "set" or "reset" time. Do not energize voltage to "set" coil and "reset" coil simultaneously. And also long energized time (more than 1 min)should be avoided.
- In order to avoid changing operate voltage, products should not be kept in strong magnetic field during transportation, storage and application.

- Tolerance ±0.5mm on all dimensions unless otherwise stated.
- Tolerance ±0.1mm on PCB DRILLING dimension unless otherwise stated.

Only for reference, won't notify if any change.



# Latching Relay TRW3

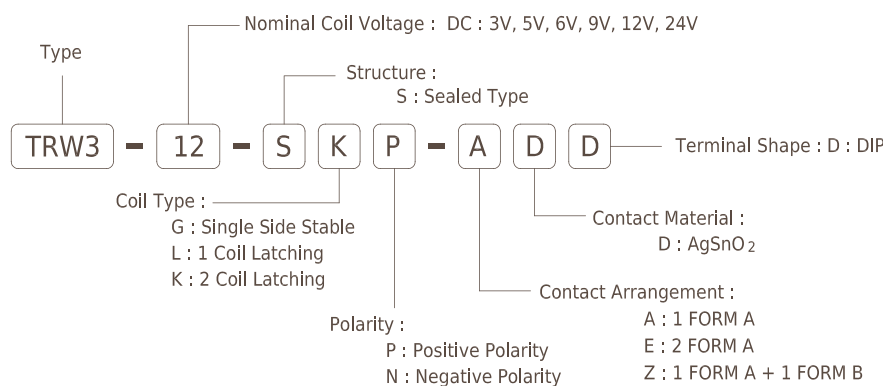
## MAIN FEATURES

- High switching capacity  
1A : 8A 250VAC  
2A & (1A+1B) : 5A 250VAC
- Energy-Saving, Very Low Coil Power.
- Safety: No coil heating, Contacting is reliable.
- Contacts status not change when power failure.
- Outline Dimensions: 20.2 mm. x 11.0 mm. x 10.0 mm.

## APPLICATIONS

- Electricity Meter.
- Time Switches.
- Ripple Control receiver.
- Lighting Control.

## ORDERING INFORMATION



## COIL DATA CHART(at 20℃ )

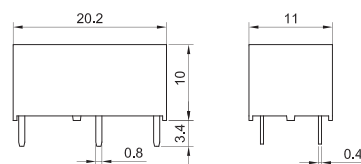
TRW3	Coil Voltage (VDC)	Pick-up (SET) Voltage (VDC)	Drop-out (RESET) Voltage (VDC)	Coil Resistance (Ω) ± 10%	Coil Power (mW)
Single Side stable ( G Type )	3	2.4	0.3	30	300
	5	4.0	0.5	83	
	6	4.8	0.6	120	
	9	7.2	0.9	270	
	12	9.6	1.2	480	
1 Coil Latching ( L Type )	24	19.2	2.4	1920	150
	3	2.4	-2.4	60	
	5	4.0	-4.0	167	
	6	4.8	-4.8	240	
	9	7.2	-7.2	540	
2 Coil Latching ( K Type )	12	9.6	-9.6	960	300
	24	19.2	-19.2	3840	
	3	2.4	2.4	30 + 30	
	5	4.0	4.0	83 + 83	
	6	4.8	4.8	120 + 120	
	9	7.2	7.2	270 + 270	
	12	9.6	9.6	480 + 480	
	24	19.2	19.2	1920 + 1920	

## CONTACT RATING

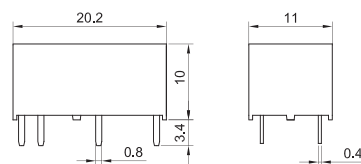
Item	TRW3		
	1A ( 1 Form A )	2A ( 2 Form A )	1A+1B ( 1 Form A+1 Form B )
Contact Rating (Res. Load)	8A 250VAC 5A 30VDC	5A 250VAC 5A 30VDC	5A 250VAC 5A 30VDC
Max. Switching Voltage	250VAC / 30VDC		
Max. Switching Current	8A	5A	5A
Max. Switching Power	2000VA / 150W	1250VA / 150W	1250VA / 150W
Contact Material	Silver Alloy		

## DIMENSION(unit:mm)

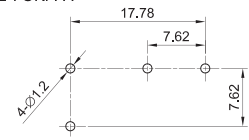
Single Side Stable/ 1 Coil Latching



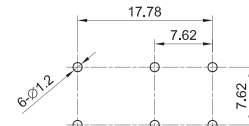
2 Coil Latching



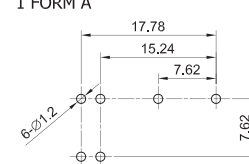
Single Side Stable/ 1 Coil Latching  
1 FORM A



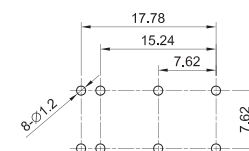
2 FORM A / 1 FORM A + 1 FORM B



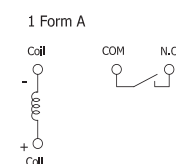
2 Coil Latching  
1 FORM A



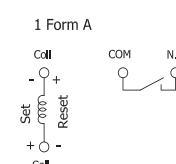
2 FORM A / 1 FORM A + 1 FORM B



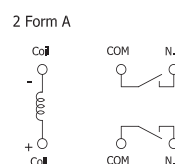
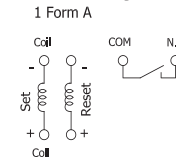
Single Side Stable/



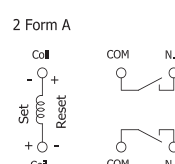
1 Coil Latching



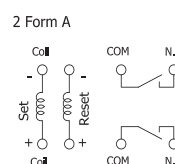
2 Coil Latching



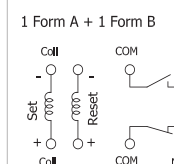
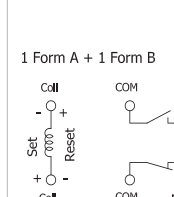
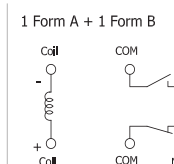
(De-eneraized Position)



(Reset Position)



(Reset Position)



- Tolerance ±0.5mm on all dimensions unless otherwise stated.
- Tolerance ±0.1mm on PCB DRILLING dimension unless otherwise stated.

## PERFORMANCE(at initial value)

Item	TRW3
Contact resistance	100mΩ. (1A 6VDC)
Insulation resistance	1000MΩ. (at 500VDC)
Operation(SET) time(at nomi. volt.)	10msec Max. (Latching Type : 10mS Max.)
Release(RESET) time (at nomi. volt.)	5msec Max. (Latching Type : 10mS Max.)
Dielectric strength	Between coil & contacts Between open contacts Between contact sets
Shock resistance	Functional Destructive
Vibration resistance	10Hz to 55Hz 2.0 D.A.
Humidity	5% to 85% RH.
Ambient temperature	-40°C to +70°C.
Life Expectancy	Mechanically Electrically
Weight	Abt. 4.7g.

## NOTICE

- 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.
- In order to maintain "set" or "reset" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "set" or "reset" time. Do not energize voltage to "set" coil and "reset" coil simultaneously. And also long energized time (more than 1 min) should be avoided.
- In order to avoid changing operate voltage, products should not be kept in strong magnetic field during transportation, storage and application.





# Latching Relay TRW5

## MAIN FEATURES

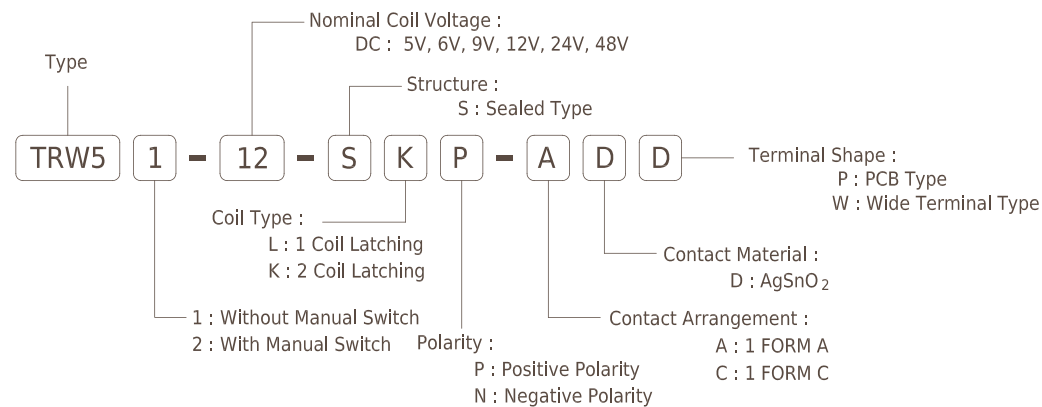
- Maximum switching capability up to 50A.
- Lamp load up to 5000W.
- Capacitor load up to 200uF. (Min. inrush current at 500A/ 10s)
- Creepage distance: 8mm
- Dielectric strength: more than 4000VAC. (between coil and contacts)
- Wash tight and flux proofed types available.
- Manual switch function available.



## APPLICATIONS

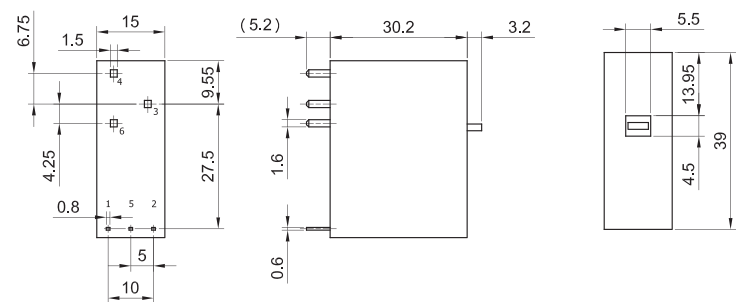
- Electricity Meter.
- Time Switches.
- Ripple Control receiver.
- Lighting Control.

## ORDERING INFORMATION

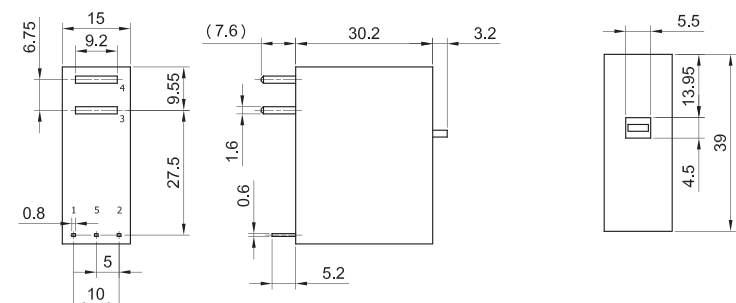


## DIMENSION(unit:mm)

PCB Type



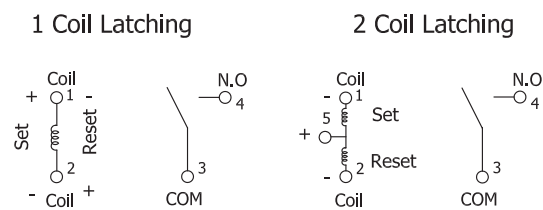
Wide Terminal Type



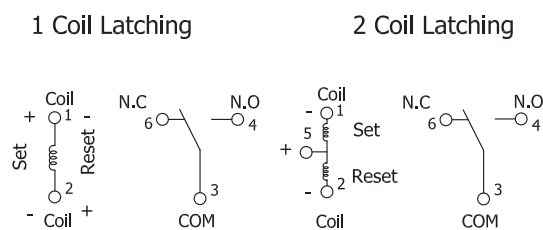
## DRILLING(unit:mm)

## WIRING DIAGRAM

1 FORM A ( Positive Polarity )



1 FORM C ( Positive Polarity )



## COIL DATA CHART(at 20℃ )

TRW5 -L Type ( 1 coil latching)				
Coil Voltage (VDC)	Set/Reset Volatge (VCD)	Coil Resistance (Ω) ±10%	Coil Power (W)	Max Allowable Voltage (VDC)
5	4	16.8	1.5	6.5
6	4.8	24		7.8
9	7.2	54		11.7
12	9.6	96		15.6
24	19.2	384		31.2
48	38.4	1536		62.4

TRW5 - K Type ( 2 coil latching)				
Coil Voltage (VDC)	Set/Reset Volatge (VCD)	Coil Resistance (Ω) ±10%	Coil Power (W)	Max Allowable Voltage (VDC)
5	4	8.4+8.4	3.0	6.5
6	4.8	12+12		7.8
9	7.2	27+27		11.7
12	9.6	48+48		15.6
24	19.2	192+192		31.2
48	38.4	768+768		62.4

## CONTACT RATING

Item	TRW5	
	1 Form A	1 Form C
Contact Rating (Res. Load)	50A 277VAC 5000W 240VAC 5HP 250VAC	40A 277VAC
Max. switching voltage	440VAC	
Max. switching current	50A	
Max. switching power	12500VA	10000VA
Contact material	Silver Alloy	
Mechanical endurance	1 x 10 <sup>6</sup> ops	

## PERFORMANCE(at initial value)

Item	TRW5
Contact Resistance	50mΩ (at 1A 24VDC)
Creepage Distance	1A : 8mm 1C : 6mm
Pulse width of coil	50ms min. (Recommend: 100 to 200ms)
Operation Time(at nomi. Volt.)	15msec.
Release Time (at nomi. Volt.)	15msec.
Max. operate frequency	1A : 20cycles/min. 1C : 10cycles/min.
Dielectric Strength	Between open contacts Between coil & contacts
Shock Resistance	Functional Destructive
Vibration Resistance	D.A. : 1.5mm 10 to 55Hz
Humidity	98% RH, +40°C
Temperature Range	-40 to +70°C
Termination	PCB, QC
Weight	Abt. 32g.

## NOTICE

- 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.
- In order to maintain "set" or "reset" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "set" or "reset" time. Do not energize voltage to "set" coil and "reset" coil simultaneously.And also long energized time (more than 1 min) should be avoided.
- In order to avoid changing operate voltage, products should not be kept in strong magnetic field during transportation, storage and application.

1.Tolerance ±0.5mm on all dimensions unless otherwise stated.  
2. Tolerance ±0.1mm on PCB DRILLING dimension unless otherwise stated.



# Latching Relay TRW8

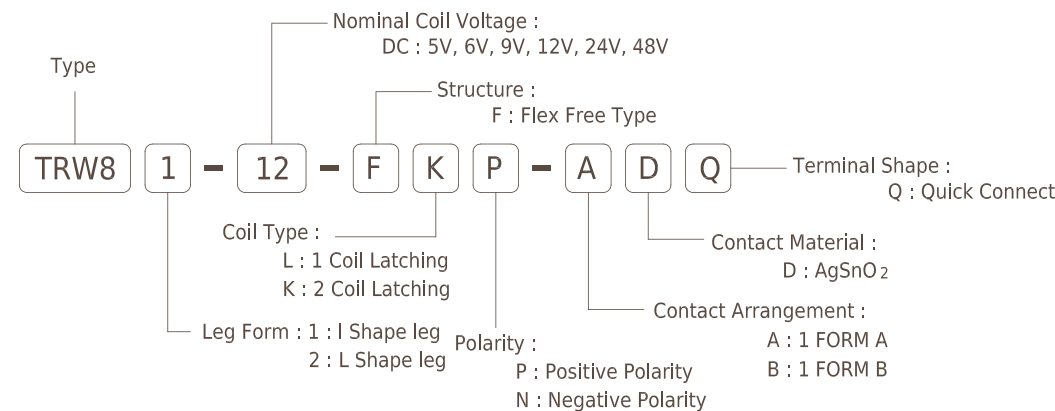
## MAIN FEATURES

- Latching Relays.
- 90A Switching Capabilities.
- 4KV dielectric strength between coil and contacts.
- Environmental friendly product (RoHS compliant).

## APPLICATIONS

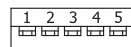
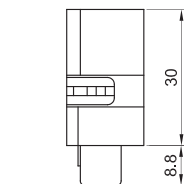
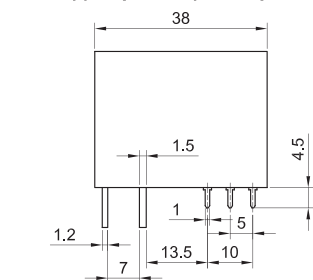
- Electricity Meter.
- Time Switches.
- Ripple Control receiver.
- Lighting Control.

## ORDERING INFORMATION



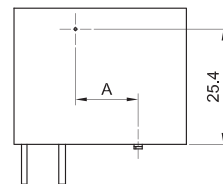
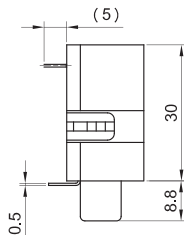
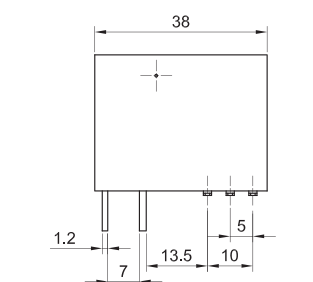
## DIMENSION(unit:mm)

### 1 Type ( I Shape led)



Type	Terminal No.				
	Pin1	Pin2	Pin3	Pin4	Pin5
1 Coil Latching	V		V		
2 Coil Latching	V		V	V	

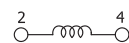
### 2 Type ( L Shape led)



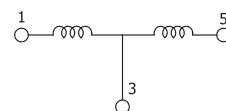
Type	A
1 Coil Latching	13.8mm
2 Coil Latching	11.3mm

## WIRING DIAGRAM

### 1 Coil Latching



### 2 Coil Latching



Polarity	Type		Terminal No.				
			Pin1	Pin2	Pin3	Pin4	Pin5
Positive	1 Coil Latching	Set	+	-			
		Reset	-	+			
	2 Coil Latching	Set	+	-			
		Reset	-	+		+	
Negative	1 Coil Latching	Set	-	+			
		Reset	+	-			
	2 Coil Latching	Set	-	+			
		Reset	+	-		+	

## COIL DATA CHART(at 20°C )

Coil Sensitivity	Coil voltage (VDC)	Coil resistance (Ω) ±10%	Set voltage (VDC)	Reset voltage (VDC)	Pulse duration (ms)	Coil power (W)
L type 1 coil latching	5	16	3.5	-3.5	≥50	1.5
	6	24	4.2	-4.2		
	9	54	6.3	-6.3		
	12	96	8.4	-8.4		
	24	384	16.8	-16.8		
K type 2 coil latching	5	8 + 8	3.5	3.5	≥50	3.0
	6	12 + 12	4.2	4.2		
	9	27 + 27	6.3	6.3		
	12	48 + 48	8.4	8.4		
	24	192 + 192	16.8	16.8		
	48	768 + 768	33.6	33.6		

## CONTACT RATING

Item	TRW8
Contact rating (Res. Load)	90A 250VAC
Max. switching voltage	250VAC
Max. switching current	90A
Max. switching power	22500VA
Contact resistance	< 2mΩ ( < 100mV )
Contact material	Silver Alloy

## PERFORMANCE(at initial value)

Item	TRW8
Insulation resistance	1000MΩ. (at 500VDC)
Dielectric Strength Between coil & contacts Between contacts	4000VAC (1 minute). 2000VAC (1 minute).
Creepage distance	8mm.
Operation time(at nomi. Volt.)	≤20msec.
Release time (at nomi. Volt.)	≤20msec.
Shock resistance Functional Destructive	98m/s <sup>2</sup> . 980m/s <sup>2</sup> .
Vibration resistance	10Hz to 55Hz D.A. : 1.5mm.
Humidity	98% RH, 40°C.
Temperature range	-40 to +70°C.
Terminals resistance	≤55K.
Life expectancy Mechanically Electrically *	1 x 10 <sup>6</sup> ops. (No load) 10000 ops. (Rating load) 6000 ops. (For Meter load )
Weight	Abt. 55g.

## NOTICE

- 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.
- In order to maintain "set" or "reset" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "set" or "reset" time. Do not energize voltage to "set" coil and "reset" coil simultaneously. And also long energized time (more than1 min) should be avoided.
- In order to avoid changing operate voltage, products should not be kept in strong magnetic field during transportation, storage and application.

1.Tolerance ±0.5mm on all dimensions unless otherwise stated.  
2. Tolerance ±0.1mm on PCB DRILLING dimension unless otherwise stated.





# Latching Relay TRW9

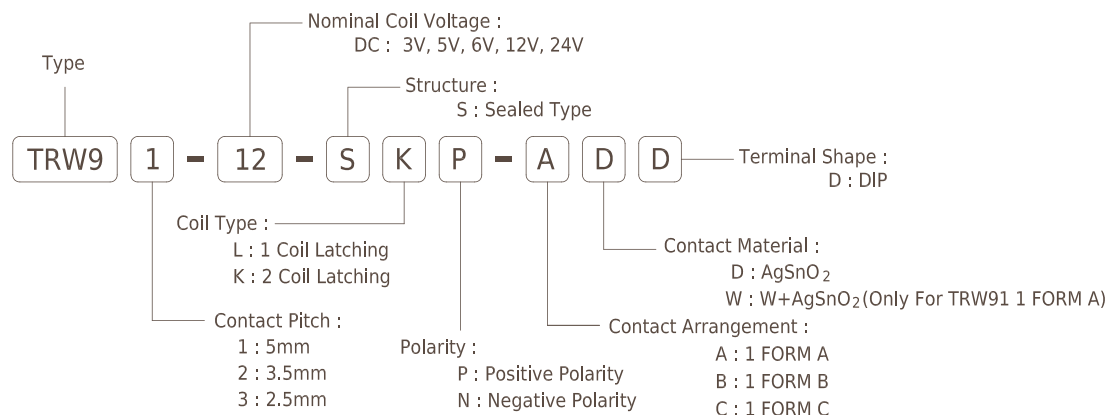
## MAIN FEATURES

- High switching capacity  
16A 250VAC
- High inrush peak current.
- Outline Dimensions: 29.0 mm. x 13.0 mm. x 15.7 mm.

## APPLICATIONS

- Electricity Meter.
- Time Switches.
- Ripple Control receiver.
- Lighting Control.

## ORDERING INFORMATION



## COIL DATA CHART(at 20°C )

Coil Sensitivity	Coil voltage (VDC)	Coil resistance (Ω) ±10%	Set voltage (VDC)	Reset voltage (VDC)	Coil power (mW)
L type 1 coil latching	3	22.5	2.4	-2.4	400
	5	62.5	4.0	-4.0	
	6	90	4.8	-4.8	
	12	360	9.6	-9.6	
	24	1440	19.2	-19.2	
K type 2 coil latching	3	15 + 15	2.4	2.4	600
	5	42 + 42	4.0	4.0	
	6	60 + 60	4.8	4.8	
	12	240 + 240	9.6	9.6	
	24	886 + 886	19.2	19.2	

## CONTACT RATING

Item	TRW9	
	1 Form A	1 Form C
Contact rating (Resistive load)	16A 250VAC 20A 250VAC *1	16A 250VAC *2
Max. switching voltage	277VAC	
Max. switching current	16A	
Max. switching power	5000VA	
Contact material	Silver Alloy	

## PERFORMANCE(at initial value)

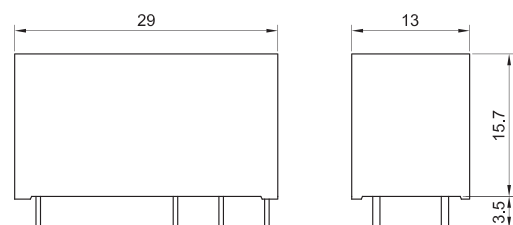
Item	TRW9
Contact resistance	50mΩ Max.(1A 24VDC)
Insulation resistance	1000MΩ.(at 500VDC)
Creepage distance	8mm.
Operation time (at nomi. volt.)	15ms Max.
Release time (at nomi. volt.)	15ms Max.
Dielectric strength Between coil & contacts Between open contacts	4000VAC (1 minute). 1000VAC (1 minute).
Shock resistance Functional Destructive	98m/s <sup>2</sup> . 980m/s <sup>2</sup> .
Vibration resistance	10Hz to 55Hz D.A. : 1.5mm.
Humidity	5% ~ 85% RH, 40°C.
Ambient temperature	-40°C to +85°C.
Life expectancy Mechanically Electrically	5 × 10 <sup>3</sup> ops. 1 × 10 <sup>5</sup> ops.(at 16A250VAC) 3 × 10 <sup>4</sup> ops.(at 20A250VAC, only for 1 Form A) *1 5 × 10 <sup>4</sup> ops.(at 16A250VAC, only for 1 Form C) *2
Weight	Abt. 13g.

## NOTICE

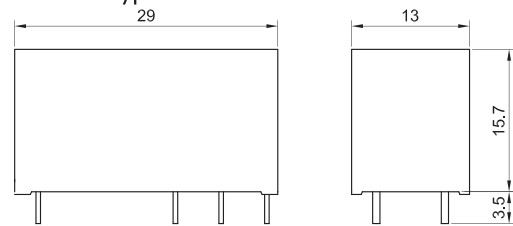
- Relay is on the "reset" or "set" status when being released from stock, with the consideration of shock risen from transit and relay mounting, relay would be changed to "set" or "reset" status, therefore, when application ( connecting the power supply), please reset the relay to "set" or "reset" status on request.
- In order to maintain "set" or "reset" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "set" or "reset" time. Do not energize voltage to "set" coil and "reset" coil simultaneously. And also long energized time (more than 1 min) should be avoided.
- In order to avoid changing operate voltage, products should not be kept in strong magnetic field during transportation, storage and application.

## DIMENSION(unit:mm)

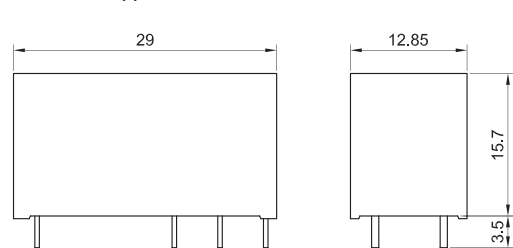
TRW91 Type



TRW92 Type

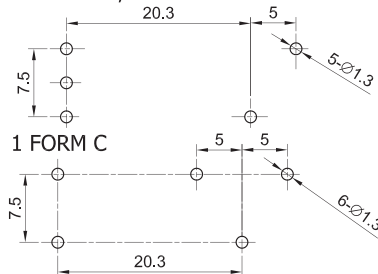


TRW93 Type

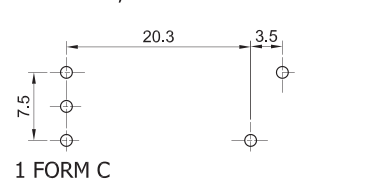


## DRILLING(unit:mm)

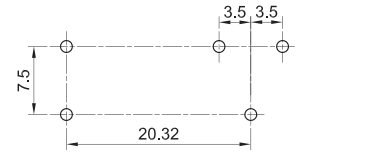
1 FORM A , 1 FORM B



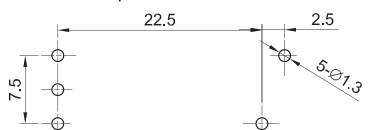
1 FORM A , 1 FORM B



1 FORM C



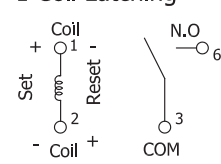
1 FORM A , 1 FORM B



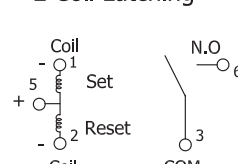
## WIRING DIAGRAM

1 FORM A ( Positive Polarity )

1 Coil Latching

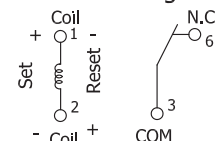


2 Coil Latching

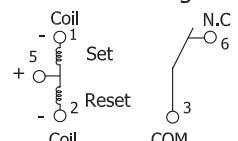


1 FORM B ( Positive Polarity )

1 Coil Latching

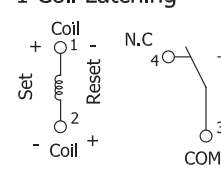


2 Coil Latching

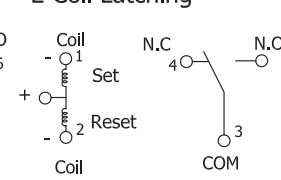


1 FORM C ( Positive Polarity )

1 Coil Latching



2 Coil Latching



- Tolerance ±0.5mm on all dimensions unless otherwise stated.
- Tolerance ±0.1mm on PCB DRILLING dimension unless otherwise stated.



# Latching Relay TRWA

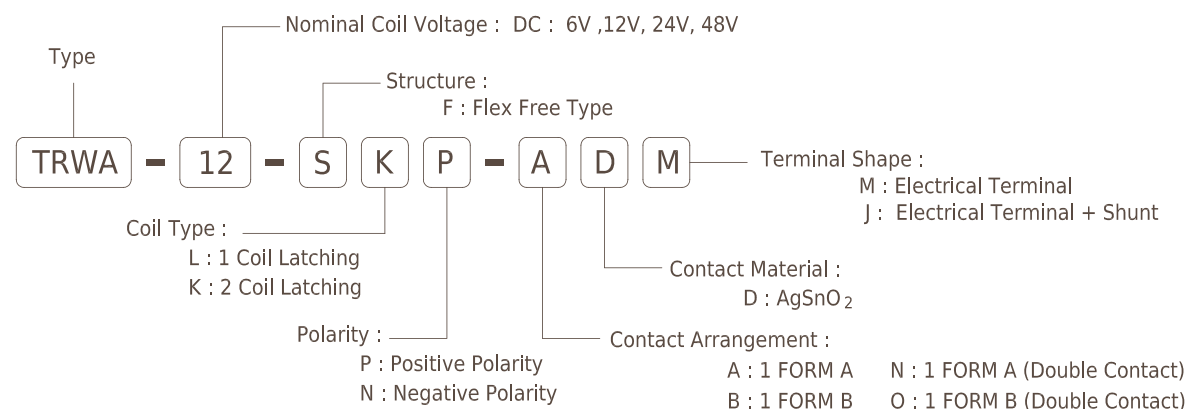
## MAIN FEATURES

- Latching Relays.  
120A Switching Capabilities.
- 4 KV dielectric strength between coil and contacts.
- Environmental friendly prod uct (RoHS compliant).
- According to IEC62055-31:U C3.
- Strong resistance ability to s hot circuit current at 6000A.

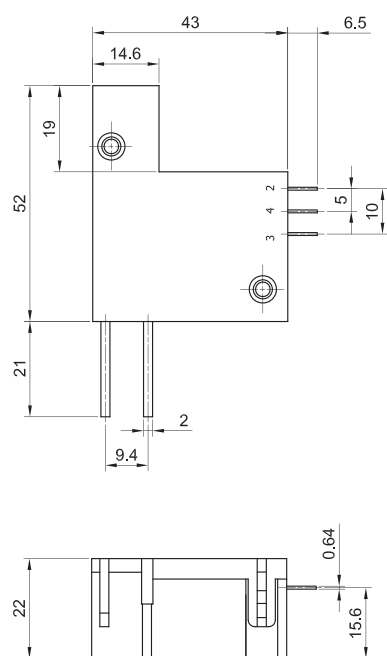
## APPLICATIONS

- Electricity Meter.
- Time Switches.
- Ripple Control receiver.
- Lighting Control.

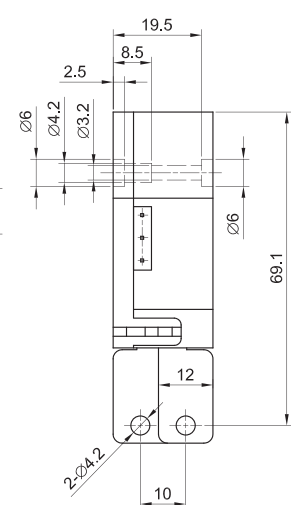
## ORDERING INFORMATION



## DIMENSION(unit:mm)

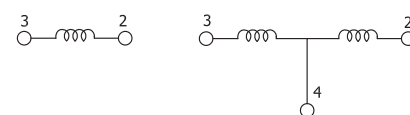


## DRILLING(unit:mm)



## WIRING DIAGRAM

1 Coil Latching 2 Coil Latching



Polarity	Type		Terminal No.		
			3	4	2
Positive	1 Coil Latching	Set	-	-	+
		Reset	+	-	-
	2 Coil Latching	Set	-	-	+
		Reset	+	-	-
Negative	1 Coil Latching	Set	+	-	-
		Reset	-	+	+
	2 Coil Latching	Set	-	+	-
		Reset	-	+	+

## COIL DATA CHART(at 20℃ )

TRWA	Coil voltage (VDC)	Coil resistance (Ω) ±10%	Set voltage (VDC)	Reset voltage (VDC)	Coil power (W)
L type 1 coil latching	6	13	4.8	-4.8	3.0
	12	50	9.6	-9.6	
	24	210	19.2	-19.2	
	48	860	38.4	-38.4	
K type 2 coil latching	6	6.5 + 6.5	4.8	4.8	6.0
	12	25 + 25	9.6	9.6	
	24	105 + 105	19.2	19.2	
	48	430 + 430	38.4	38.4	

## CONTACT RATING

Item	TRWA
Contact rating (Res. Load)	120A 277VAC 120A 28VDC
Max. switching voltage	440VAC
Max. switching current	120A
Max. switching power	33240VA / 3360W
Contact material	Silver Alloy

## PERFORMANCE(at initial value)

Item	TRWA
Insulation resistance	1000MΩ (at 500VDC)
Dielectric strength Between coil & contacts Between open contacts	4000VAC (1 minute). 2000VAC (1 minute).
Creepage distance	8mm
Operation time (at nomi. volt.)	20m sec Max.
Release time (at nomi. volt.)	20m sec Max.
Shock resistance Functional Destructive	98m/s <sup>2</sup> 980m/s <sup>2</sup>
Vibration resistance	10Hz to 55Hz D.A. : 1.5mm
Humidity	98% RH, 40°C
Temperature	-40°C to +85°C
Life expectancy Mechanically Electrically	1 × 10 <sup>5</sup> ops.(No load) 5000 ops. (rating load)
Weight	Abt. 85g.

## NOTICE

- 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.
- In order to maintain "set" or "reset" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "set" or "reset" time. Do not energize voltage to "set" coil and "reset" coil simultaneously. And also long energized time (more than 1 min) should be avoided.
- In order to avoid changing operate voltage, products should not be kept in strong magnetic field during transportation, storage and application.





# Latching Relay TRWG

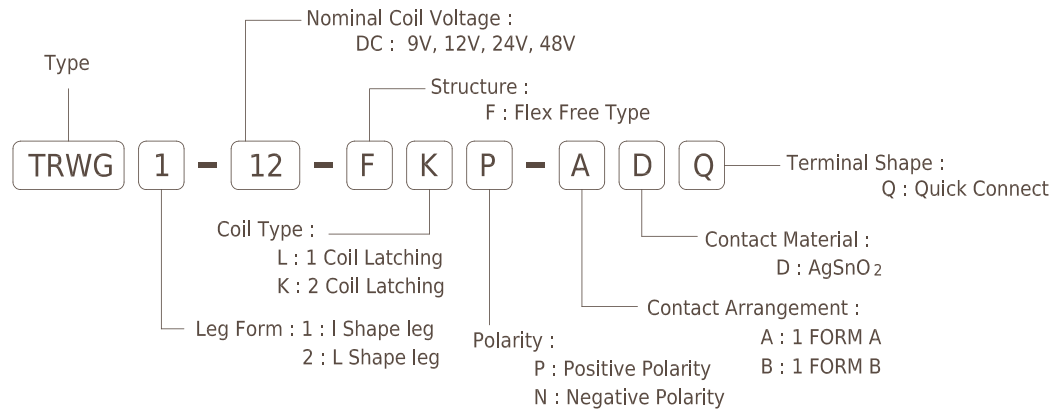
## MAIN FEATURES

- 100A Latching Relays.
- Carrying 3000A peak current and contact won't welded.
- Carrying the 6000A short circuit current without explosion.
- 4KV dielectric strength between coil and contacts.
- Environmental friendly product (RoHS compliant).

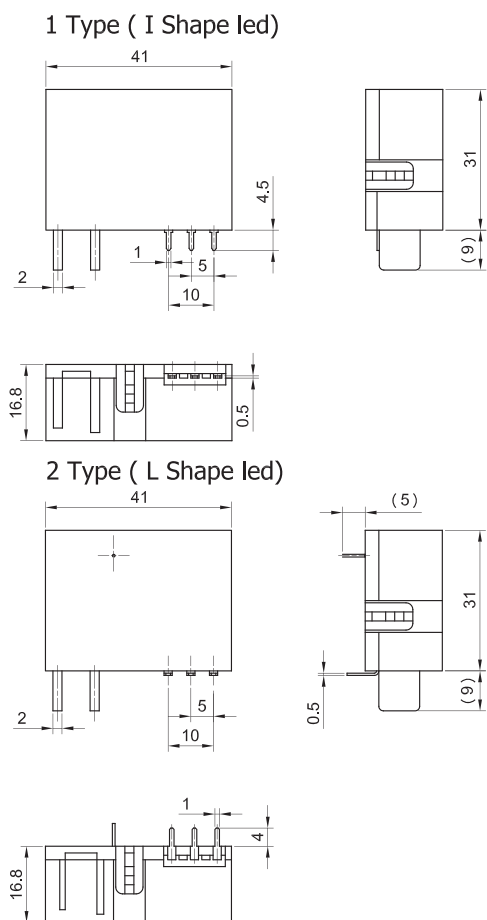
## APPLICATIONS

- Electricity Meter.
- Time Switches.
- Ripple Control receiver.
- Lighting Control.

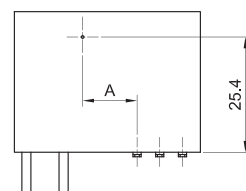
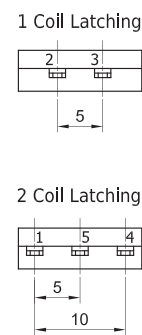
## ORDERING INFORMATION



## DIMENSION(unit:mm)

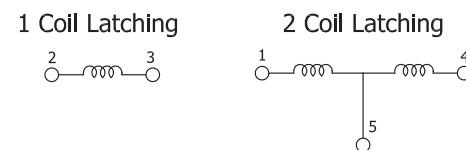


## DRILLING(unit:mm)



Type	A
1 Coil Latching	14.5mm
2 Coil Latching	12mm

## WIRING DIAGRAM



Polarity	Type		Terminal No.				
			Pin1	Pin2	Pin3	Pin4	Pin5
Positive	1 Coil Latching	Set		+	-		
		Reset		-	+		
	2 Coil Latching	Set	+			+	-
		Reset				-	+
Negative	1 Coil Latching	Set		-	+		
		Reset		+	-		
	2 Coil Latching	Set	-				+
		Reset				-	+

## COIL DATA CHART(at 20°C )

TRWG	Coil voltage (VDC)	Coil resistance (Ω) ±10%	Set voltage (VDC)	Reset voltage (VDC)	Pulse duration (ms)	Coil power (W)
L type 1 coil latching	9	34	7.2	-7.2	≥80	2.4
	12	60	9.6	-9.6		
	24	240	19.2	-19.2		
	48	960	38.4	-38.4		
K type 2 coil latching	9	17 + 17	7.2	7.2	≥80	4.8
	12	30 + 30	9.6	9.6		
	24	120 + 120	19.2	19.2		
	48	480 + 480	38.4	38.4		

## CONTACT RATING

Item	TRWG
Contact rating (Res. Load)	100A 250VAC
Max. switching voltage	277VAC
Max. switching current	100A
Max. switching power	25000VA
Contact resistance	2mΩ Max. ( at 100A )
Contact material	Silver Alloy

## PERFORMANCE(at initial value)

Item	TRWG
Insulation resistance	1000MΩ (at 500VDC)
Dielectric strength	4000VAC. (1 minute)
Between coil & contacts	2000VAC. (1 minute)
Between open contacts	
Creepage distance	8mm.
Operation time(at nomi. Volt.)	20msec Max.
Release time (at nomi. Volt.)	20msec Max.
Shock resistance	
Functional	98m/s <sup>2</sup>
Destructive	980m/s <sup>2</sup>
Vibration resistance	10Hz to 55Hz D.A. : 1.5mm
Humidity	98% RH, 40°C.
Temperature range	-40 to +70°C.
Life expectancy	
Mechanically	1 x 10 <sup>6</sup> ops. (No load)
Electrically *	10000 ops. (Rating load)
	6000 ops. (Meter)
Weight	Abt. 65g.

## NOTICE

- 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.
- In order to maintain "set" or "reset" status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than "set" or "reset" time. Do not energize voltage to "set" coil and "reset" coil simultaneously. And also long energized time (more than 1 min) should be avoided.
- In order to avoid changing operate voltage, products should not be kept in strong magnetic field during transportation, storage and application.

1.Tolerance ±0.5mm on all dimensions unless otherwise stated.  
2. Tolerance ±0.1mm on PCB DRILLING dimension unless otherwise stated.