JTKW

SUBMINIATURE AUTOMOTIVE RELAY



Typical Applications

Central door lock, power doors & windows, Turing lamp control, Mirror adjustment, Seat adjustment, Speed-limit indicator control, Warm-up control, Wiper control

Features

- Tight structure and light weight
- Improved heat resistance
- ROHS&ELV compliant

CHARACTERISTICS

Contact arrangement	1A, 1B, 1C
Volto an alum (initial)	Typ.:50mV(at 10A)
Voltage drop(initial) ¹⁾	Max.:250mV(at 10A)
Max.switching current ²⁾	NO:35A NC:20A
Max.switching voltage	16VDC
Min.contact load	1A6VDC
Electrical endurance	See"CONTACT DATA"
Mechanical endurance	1 x10 ⁷ ops(300ops/min)
Initial insulation resistance	100MΩ(at 500VDC)
Dielectric strength ³⁾	500VAC

Operate time	Max.:10ms (at nomi.vol.)
Release time4)	Max.:5ms
Shock resistance ⁵⁾	98m/s²
Vibration resistance ⁵⁾	10Hz to 55Hz 1.5mm DA
Ambient temperature	-40°C to 85°C
Termination	PCB
Unit weight	Approx. 6g
Construction	Plastic sealed Flux proofed

Notes: 1) Equivalent to the max.initial contact resistance is $100m\Omega$ (at 1A 6VDC).

- 2) At 23°C,13.5VDC(100 cycles,resistive load).
- 3)1min,leakage current less than 1 mA.
- 4) The value is measured when voltage drops suddenly from nominal voltage to 0VDC and coil is not paralleled with suppression circuit.
- 5) When energized, opening time of NO contacts shall not exceed 100 μs, when non-energized, opening time of NC contacts shall not exceed 100 μs, meantime, NO contacts shall not be closed.

COIL at 23°C

Nominal Voltage ¹⁾ VDC	Pick-up Voltage VDC max.		Drop-out Voltage VDC	Coil Resistance x(1±10%)Ω	Power consumption	Max.allowable overdrive Voltage ²⁾ VDC	
	at 23°C	at 85°C	min.	X(1±10%)Ω	W	at 23°C	at 85°C
6	3.6	4.5	0.5	60	0.6	9	8
9	5.4	6.8	0.7	135	0.6	13.5	12
10	6.3	7.9	0.8	180	0.6	15	13.3
12	7.3	9.0	1.0	240	0.6	18	16
24	14.4	18.0	1.9	960	0.6	36	32

Nominal Voltage ¹⁾ VDC	Pick-up Voltage VDC max.		Drop-out Voltage VDC	Coil Resistance x(1±10%)Ω	Power consumption W	Max.allowable overdrive Voltage ²⁾ VDC	
	at 23°C	at 85°C	min.	X(1±1076)\$2	VV	at 23°C	at 85°C
6	3.6	4.5	0.5	45	0.8	9	8
9	5.4	6.8	0.7	102	0.8	13.5	12
10	6.3	7.9	0.8	125	0.8	15	13.3
12	7.3	9.0	1.0	180	0.8	18	16
24	14.4	18.0	1.9	720	0.8	36	32

Notes: 1) Other types on request.

2) Max. allowable overdrive voltage is stated with no load applied.

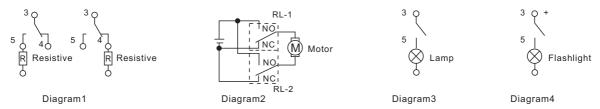


JINTIAN RELAY

CONTACT DATA

Load voltage	Load type		Load current A			On/Off ratio		Electrical		
			1C		1A	On	Off	endurance OPS	Contact material	Load wiring diagram4)
			NO	NC	NO	s	S	OPS		
13.5VDC La	Resistive	Make	20	10	20	2	2	1 x 10 ⁵	AgSnO₂	see diagram 1
	Resistive	Break	20	10	20	2	2			
	Motor Locked	Make	25 ³⁾		25 ³⁾	0.2	2	1 x 10⁵	AgSnO₂	see diagram 2
		Break	25 ³⁾		25 ³⁾					
	Lamp ¹⁾	Make	902)		902)	1	9	1 x 10⁵ (at 23°C)	AgSnO₂	see diagram 3
		Break	8.8		8.8					
	Lamp ¹⁾ -	Make	6 x21W		6 x21W	1	6	1 x 10⁵	AgSnO₂	see diagram 3
		Break	0 12 1 11		0 12 1 1 1					

- 1) When it is utilized in flasher, please connect by the polarity according to the diagram4 below.
- 2) Corresponds to the peak inrush current on intial actuation (cold filament).
- 3) Corresponds to the peak inrush current on intial actuation (motor).
- 4) The load wiring diagrams are listed below (Ratings of NO,NC are tested based on different samples seperately):



5) When the load voltage is at 24VDC or higher, or the applications are different from the table above, please submit the detailed application conditions to JINTIAN to get more support.

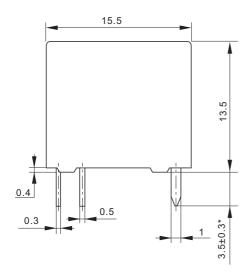
ORDERING INFORMATION

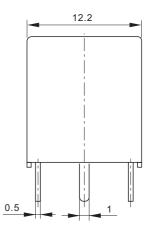
012 - 1Z JTKW **Type** 006:6VDC 009:9VDC Coil voltage 010:10VDC 012:12VDC 024:24VDC 1D:1Form B 1H:1Form A **Contact arrangement** 1Z:1Form C Contact material W:AgSnO₂ Construction 1)2) S:Plastic sealed NiI:Flux proofed **Power** S:0.8W **NiI**:0.6W Special code³⁾ XXX:Customer special requirement Nil:Standrad

Notes: 1) Contact is recommended for suitable condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.

2) The customer special requirement express as special code after evaluating by Jintian.e.g. (335)stand for product in accordance to IEC 60335-1(GWT).

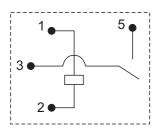
Outline Dimensions(1 Form A / 1 Form C)



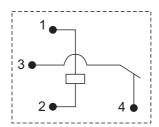


PCB Layout (Bottom view)

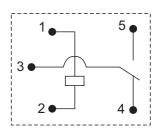
1 Form A



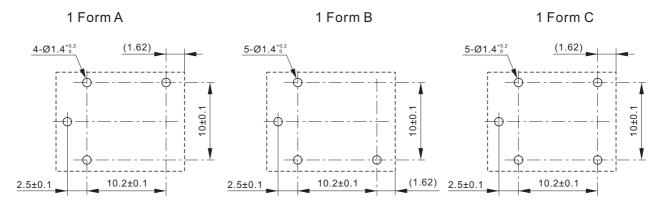
1 Form B



1 Form C



Wiring Diagram (Bottom view)



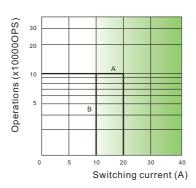
Remark:1)The pin dimension of the product outline drawing is the size before tinning (it will become larger after tinning), and the mounting hole size is the recommended design size of the PCB board hole. The specific PCB board hole design size can be mapped and adjusted according to the actual producet.

- 2) 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±0.4mm.
- 3) The tolerance without indicating for PCB layout is always $\pm \, 0.1 \text{mm}.$

CHARACTERISTIC CURVES

LOAD CURVE (at 23°C)

Electrical Endurance Curve



JTKW/012-1ZW(XXX)

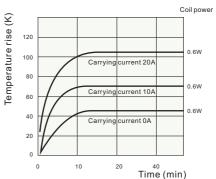
Notes:

- 1. Curve A: NO contact Curve B: NC contact
- 2. Test conditions:

Curve A: NO, Resistive load, Room temp., flux proofed, 13.5VDC, 2s on 2s off

Curve B: NC, Resistive load, Room temp., flux proofed, 13.5VDC, 2s on 2s off

Coil Temperature Rise



JTKW/012-1ZW(XXX)

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 JINTIAN for the technical service. However, it is the user's responsibility to determine which product should be used only.