

Features

- 20A switching capability
- Provide high sensitive type,coil power is 250mW
- Provide the product meet the standards of IEC60335-1、IEC60730-1、IEC62368-1
- Breakdown voltage (between coil and contacts) :5KV
- Creep age distance and Air distance≥15mm
- Products with operating temperature of 105℃ are available
- UL insulation system: Class F
- Environment- friendly product (RoHS compliant)
- Outline Dimensions: (28.8×12.5×15.9) mm
- Main application: Home appliance、Smart home、Industrial Control



TV-8 C  **US**

CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A、1B、1C
	Contact resistance(initial)		≤100mΩ(6VDC 1A)
	Contact material		AgSnO ₂
Rated value	Rated load(Resistance load)		16A 250VAC/30VDC (Standard) 20A 250VAC
	Max.switching voltage		400VAC/30VDC
	Max.switching current		20A
	Max.switching capacity		4000VA/480W
	Min.allowing load		5VDC 100mA
Electrical performance	Insulation resistance(initial)		1000MΩ (500VDC)
	Dielectric strength (initial)	Between open contacts	1000VAC, 1 min
		Between coil&contacts	4000VAC, 1 min
	Operate time		≤15ms
	Release time		≤10ms
Mechanical performance	Shock resistance	Functional	98m/s ² (10g)
		Destructive	980m/s ² (100g)
	Vibration resistance		10Hz~55Hz 1.5mm DA
Endurance	Mechanical		1×10 ⁷ ops
	Electrical	20A 250VAC	5×10 ⁴ ops (ON/OFF=1s/9s)
		16A 250VAC/30VDC	1×10 ⁵ ops (ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85/105℃
	Humidity		5% to 90%
Termination			PCB
Unit weight			Approx.12g
Construction			Plastic sealed、Flux proofed

COIL DATA(23°C)

Standard Type

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.25	≥0.15	133.3mA	22.5Ω	400mW	DC 3.9V
DC 5V	≤3.75	≥0.25	80mA	62.6Ω		DC 6.5V
DC 6V	≤4.50	≥0.30	66.7mA	90Ω		DC 7.8V
DC 9V	≤6.75	≥0.45	44.4mA	202.5Ω		DC 11.7V
DC 12V	≤9.00	≥0.60	33.3mA	360Ω		DC 15.6V
DC 15V	≤11.25	≥0.75	26.7mA	562.5Ω		DC 19.5V
DC 18V	≤13.50	≥0.90	22.2mA	810Ω		DC 23.4V
DC 24V	≤18.00	≥1.20	16.7mA	1440Ω		DC 31.2V
DC 48V	≤36.00	≥2.40	8.3mA	5760Ω		DC 62.4V
DC 60V	≤45	≥3	6.67mA	9000Ω		DC 78V
DC 90V	≤67.5	≥4.5	4.44mA	20250Ω		DC 117V
DC 110V	≤82.5	≥5.5	3.64mA	30250Ω		DC 143V

Sensitive Type

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.4	≥0.15	83.3mA	36Ω	250mW	DC 3.9V
DC 5V	≤4.0	≥0.25	50mA	100Ω		DC 6.5V
DC 6V	≤4.8	≥0.30	41.7mA	144Ω		DC 7.8V
DC 9V	≤7.2	≥0.45	27.8mA	324Ω		DC 11.7V
DC 12V	≤9.6	≥0.60	20.8mA	576Ω		DC 15.6V
DC 15V	≤12.0	≥0.75	16.7mA	900Ω		DC 19.5V
DC 18V	≤14.4	≥0.90	13.9mA	1296Ω		DC 23.4V
DC 24V	≤19.2	≥1.20	10.4mA	2304Ω		DC 31.2V
DC 48V	≤38.4	≥2.40	5.2mA	9216Ω		DC 62.4V
DC 60V	≤45	≥3	4.17mA	14400Ω		DC 78V

ORDERING INFORMATION

W15 -1A 1 S T L -XXX DC12V

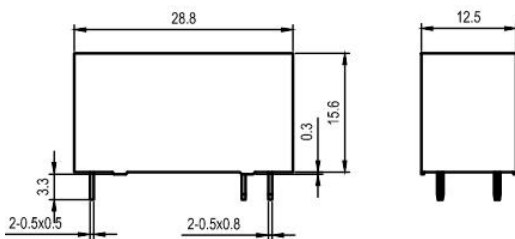
- ① Type
- ② Contact arrangement(1): 1A=1 open contacts、1B=1 close contacts、1C=1 switched contacts
- ③ PCB mounting(2): 1=1 type 1、2=2 type 2
- ④ Construction(3): Nil=Flux proofed, S=Plastic sealed
- ⑤ Contact material: T=AgSnO₂
- ⑥ Coil power: Nil=Standard、L=Sensitive
- ⑦ Customer special code: numbers or letters denote customer's requirements
- ⑧ Coil specification: DC3/5/6/9/12/15/18/24/48/60/90/110V

ORDERING INFORMATION

- (1) If need the contact arrangement is 1B, please contact with the salesman to ask for the outline dimensions, wiring diagram and PC board layout.
- (2) If need the single PCB mounting 5 mm, please contact with the salesman to ask for the outline dimensions, wiring diagram and PC board layout.
- (3) When used in clean environment (excluding H₂S, SO₂, NO₂, dust and other pollutants), it is recommended to choose the Flux proofed type; When used in unclean environment (contain H₂S, SO₂, NO₂, dust and other pollutants), it is recommended to choose the Plastic sealed.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT (Unit: mm)

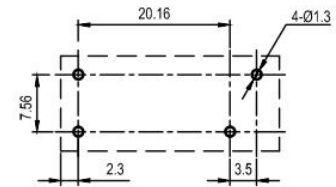
1A1 Outline Dimensions



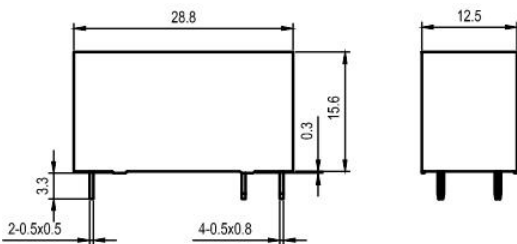
Wiring Diagram
(Bottom view)



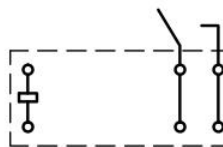
PCB Layout
(Bottom view)



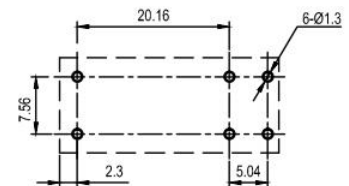
1A2 Outline Dimensions



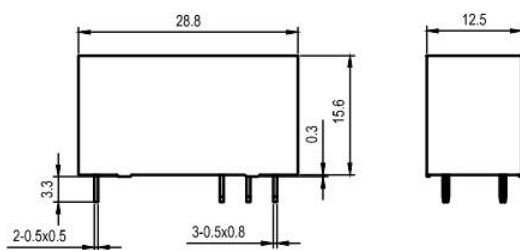
Wiring Diagram
(Bottom view)



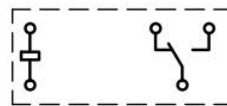
PCB Layout
(Bottom view)



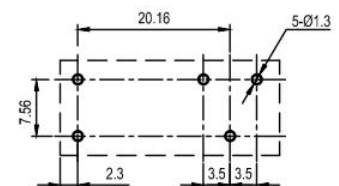
1C1 Outline Dimensions



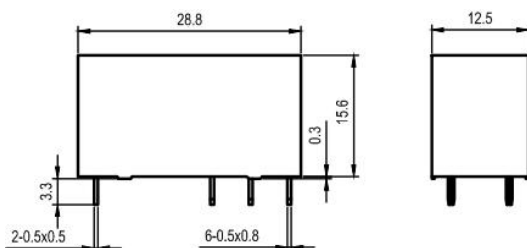
Wiring Diagram
(Bottom view)



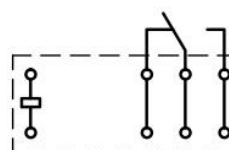
PCB Layout
(Bottom view)



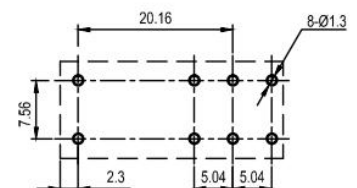
1C2 Outline Dimensions



Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



■ OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT (Unit: mm)

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

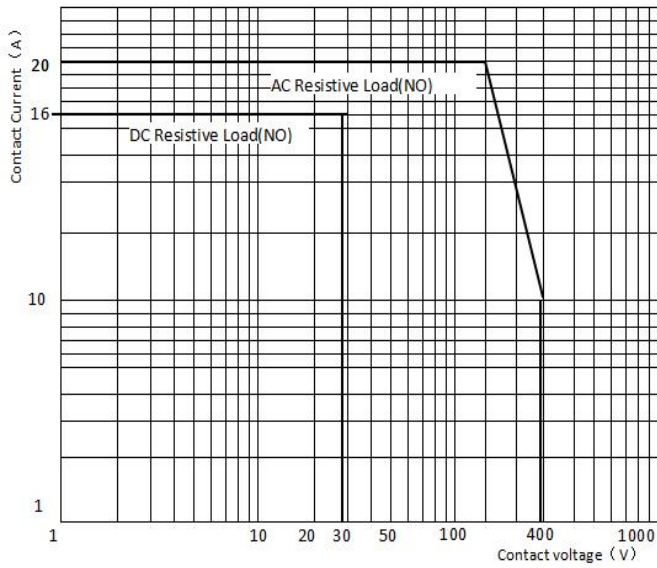
(2) The tolerance without indicating for PCB layout is always ± 0.1 mm.

■ SAFETY APPROVAL RATINGS

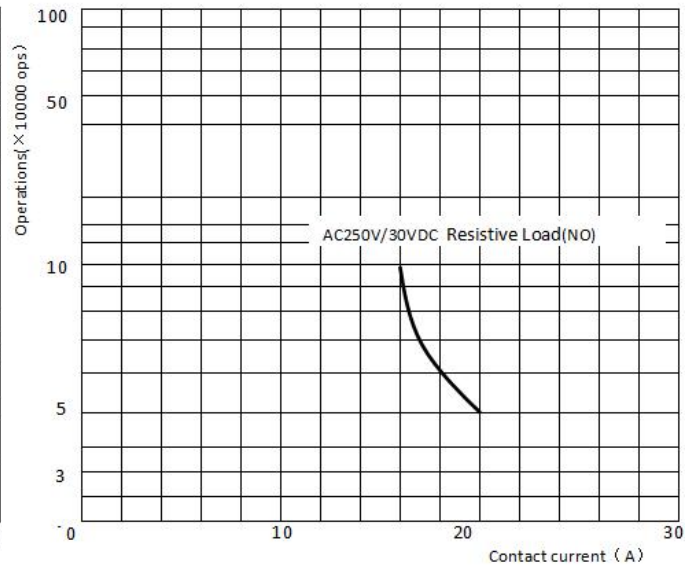
Approval	File No.	Contact arrangement	Contact material	Approved ratings
UL/C-UL	E475405	1A、1C(NO)	AgNi AgSnO ₂	Standard(1A1、1C1): 12A 250VAC/30VDC 85°C Standard(1A2、1C2): 16A 250VAC/30VDC 85°C 12A 250VAC 105°C 5A 400 VAC 85°C 18A 125VAC 85°C 1HP 250VAC 85°C 10A 250VAC (PF=0.6) 85°C TV-8 125VAC 85°C 2000W 250VAC (Tungsten) 85°C Sensitive (1A1、1C1): 12A 250VAC/30VDC 85°C Sensitive (1A2、1C2): 16A 250VAC/30VDC 85°C
		1B、1C(NC)		Standard(1B1、1C1): 12A 250VAC/30VDC 85°C Standard(1B2、1C2): 16A 250VAC/30VDC 85°C Sensitive (1B1、1C1): 12A 250VAC/30VDC 85°C Sensitive (1B2、1C2): 16A 250VAC/30VDC 85°C
TUV	R 50332875	1A(NO)	AgSnO ₂	20A 250VAC 85°C 16A 250VAC 105°C 16A 250VAC/30VDC 85°C
		1B(NC)		16A 250VAC/30VDC 85°C
		1C(CO)		10A/10A 250VAC/30VDC 85°C
CQC	CQC15002137649	1A、1B、1C	AgSnO ₂	16A 250VAC/30VDC 85°C

PERFORMANCE CURVES

MAXIMUM SWITCHING POWER



ENDURANCE CURVE



NOTICE

- ① In order to maintain the initial performance parameters of the relay, please be careful not to drop the product;
- ② The specification is for reference only. Specifications subject to change without notice.