

Subminiature Intermediate Power Relay	CU
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Features

- 10kV impulse withstand voltage (Between coil and contacts)
- Highly efficient magnetic circuit for high sensitivity : 200mW
- 10A switching capability
- Extremely small footprint utilizing PCB area



cULus
(File No.:E134581)

1. COIL DATA (at 23°C)

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)	Coil Current (mA)(±10%)	Coil Resistance (Ω)	Coil Power (mW)
3	2.25	0.18	3.90	66.7	45 x (1±10%)	200
5	3.75	0.25	6.50	40.0	125 x (1±10%)	
6	4.50	0.30	7.80	33.3	180 x (1±10%)	
9	6.75	0.45	11.7	22.2	405 x (1±10%)	
12	9.00	0.60	15.6	16.7	720 x (1±10%)	
18	13.5	0.90	23.4	11.1	1620 x (1±10%)	
24	18.0	1.20	31.2	8.33	2880 x (1±10%)	

2. CONTACT DATA

		Standard	High Capacity
Contact Arrangement		1 Form A	
Contact Resistance		100mΩ max. (at 1A 24VDC)	
Contact Material		AgNi	
Contact Ratings		5A 250VAC / 30VDC	7A 250VAC / 30VDC
Max. Switching Voltage		277VAC / 30VDC	
Max. Switching Current		5A	10A
Max. Switching Power		1,385VA / 150W	2770VA / 300W
Life Expectancy	Electrical	100,000 operations (at 5A 250VAC) 200,000 operations (at 3A 250VAC)	100,000 operations (at 7A 250VAC) 30,000 operations (at 10A 250VAC)
	Mechanical	5,000,000 operations	

3. CHARACTERISTICS

Insulation Resistance		1000MΩ (at 500VDC)
Dielectric Strength	Open Contacts	1000VAC 1min
	Contacts and Coil	4000VAC 1min
Surge Voltage (between coil and contact)		10kV (1.2 x 50μs)
Operate Time (at nominal voltage)		10ms max.
Release Time (at nominal voltage)		10ms max.
Temperature Range		-40℃ ~ 85℃
Shock Resistance	Functional	98 m/s ²
	Destructive	980 m/s ²
Vibration Resistance ¹⁾		10 ~ 55Hz, 1.5mm DA
Humidity		5 ~ 85% RH
Termination		PCB
Weight		Approx. 3g
Outline Dimension (L x W x H)		20.5 x 7.2 x 15.3 mm

Note: 1) Index is not that of relay length direction. The characteristics of relay length direction is only 10Hz to 55Hz 1mm DA.

2) The data shown above are initial values.

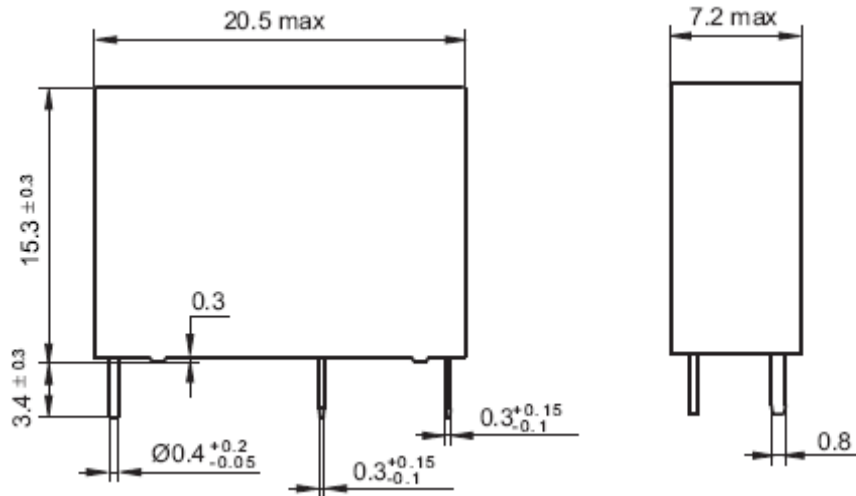
3) UL insulation system: Class F, Class B

4. ORDERING INFORMATION

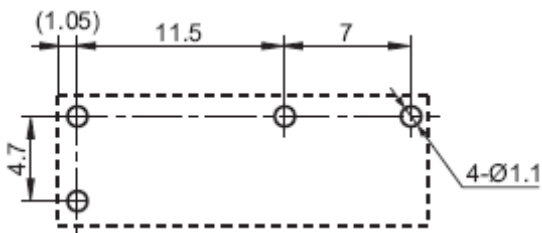
<u>CU</u>	<u>11</u>	-	<u>12</u>	<u>S</u>	<u>G</u>	<u>H</u>
①	②		③	④	⑤	⑥
① Relay Model	CU					
② Contact Arrangement	11: 1 Form A (SPST-NO)					
③ Coil Voltage	3=3VDC, 5=5VDC, 6=6VDC, 9=9VDC, 12=12VDC, 18=18VDC, 24=24VDC					
④ Construction	S: Sealed Type					
⑤ Contact Rating	Nil: 5A (Standard) G: 7A (High Capacity)					
⑥ Termination	Nil: Type 1 H: Type 2					

5. DIMENSIONS (Unit: mm)

Outline Dimensions



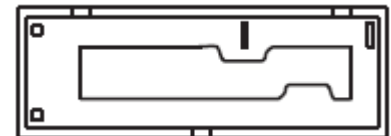
1) Type 1 (CU11-□□S□□)



PCB Layout (Bottom View)

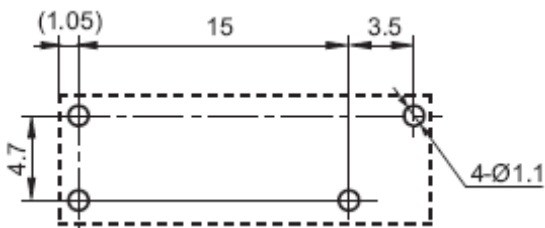


Wiring Diagram (Bottom View)



Bottom View

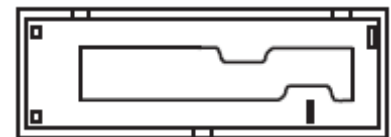
2) Type 2 (CU11-□□S□H)



PCB Layout (Bottom View)



Wiring Diagram (Bottom View)



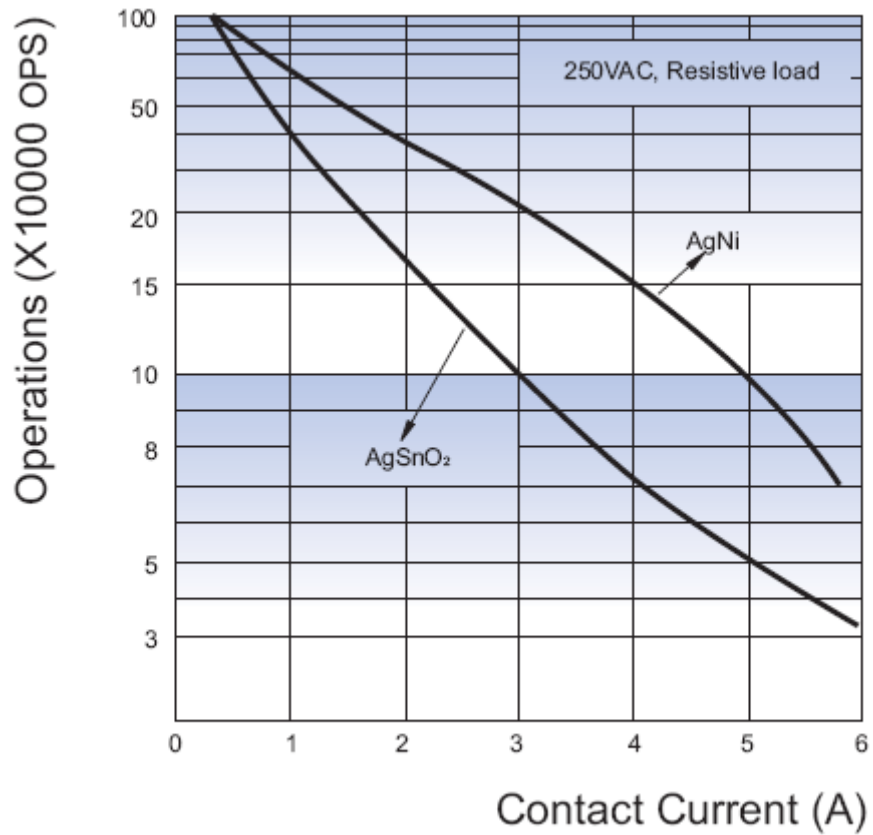
Bottom View

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 ± 0.4 mm.

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

6. ENDURANCE CURVES

1) Standard



2) High Capacity

