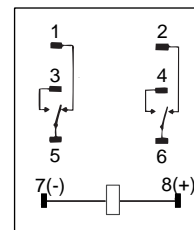




## CR13 series relays

- Standard type
- 2CO-10A contact
- Two poles changover contacts
- Multiple terminations type
- Many kinds of mounting
- AC coils and DC coils
- Environmental friendly product (RoHS compliant)



### Contact specification

Contact configuration	2CO(DPDT)
Rated voltage	250VAC/30VDC
Rated current	10A
Rated load AC-1/DC-1	2500VA/300W
Contact resistance	100mΩ
Standard contact material	AgSnO <sub>2</sub> , AgCdO
Mechanical life	1x10 <sup>7</sup>
Electrical life	1x10 <sup>5</sup>

### Coil specification

AC Rated voltage (Un) (50-60Hz)	6V - 12V - 24V - 36V - 48V - 110V - 230V - 240V
DC Rated voltage (Un)	6V - 12V - 24V - 48V - 110V
Rated power	AC: 1.2VA , DC: 900mW
Pick-up voltage (AC/DC)	0.8Un/0.8Un
Drop-out voltage (AC/DC)	0.3Un/0.1Un

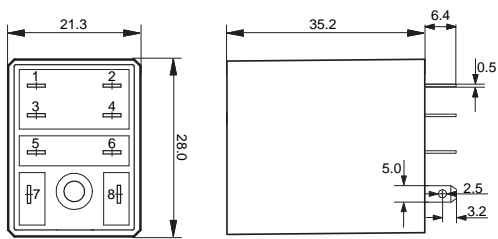
### Characteristics

Insulation resistance	500MΩ (500VDC)
Dielectric Strength (Between coil and contact)	1500VAC 1Min
Dielectric Strength (Between open contacts)	1000VAC 1Min
Dielectric Strength (Between contact sets)	1500VAC 1Min
Operate time	25ms
Release time	25ms
Shock resistance functional	100m/s <sup>2</sup>
Shock resistance destructive	1000m/s <sup>2</sup>
Vibration	10-55HZ/1mm
Ambient temperature	-40°C to +55°C
Ambient humidity	98%RH, +40°C
Weight	approx.37g

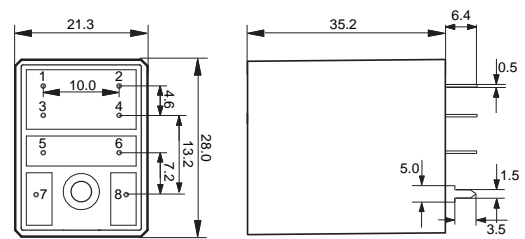
## Characteristics of relays

Dimension(mm)

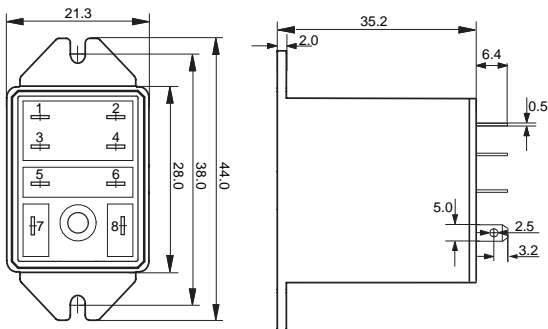
Socket mounting



PCB mounting



Flange mounting





## Characteristics of relays

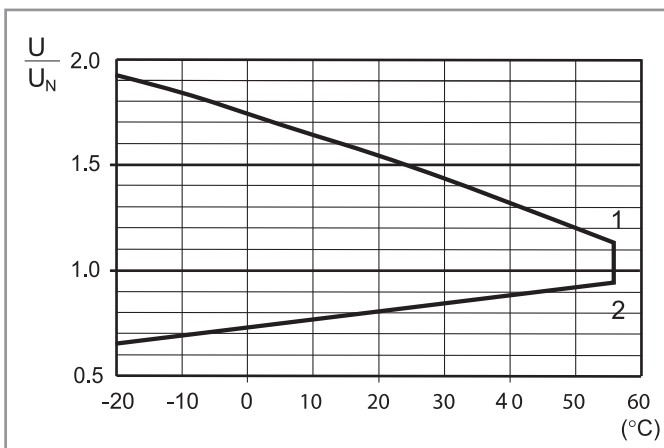
### Coil Information (20°C)

Rated voltage (VDC)	Pick-up voltage (VDC)	Permitted coil voltage (VDC)	Drop-out voltage (VDC)	Coil resistance ( $\Omega$ )
6	4.8	6.6	0.6	40.0 $\pm$ 10%
12	9.6	13.2	1.2	160.0 $\pm$ 10%
24	19.2	26.4	2.4	650.0 $\pm$ 10%
48	38.4	52.8	4.8	2600.0 $\pm$ 10%
110	88.0	121.0	11.0	11000.0 $\pm$ 10%

Rated voltage (VAC)	Pick-up voltage (VAC)	Permitted coil voltage (VAC)	Drop-out voltage (VAC)	Coil resistance ( $\Omega$ )
6	4.8	6.6	1.8	12.0 $\pm$ 10%
12	9.6	13.2	3.6	46.0 $\pm$ 10%
24	19.2	26.4	7.2	180.0 $\pm$ 10%
36	28.8	39.6	10.8	450.0 $\pm$ 10%
48	38.4	52.8	14.4	780.0 $\pm$ 10%
110	88.0	121.0	30.0	3750.0 $\pm$ 10%
230	184.0	253.0	69.0	12950.0 $\pm$ 10%
240	192.0	264.0	72.0	18790.0 $\pm$ 10%

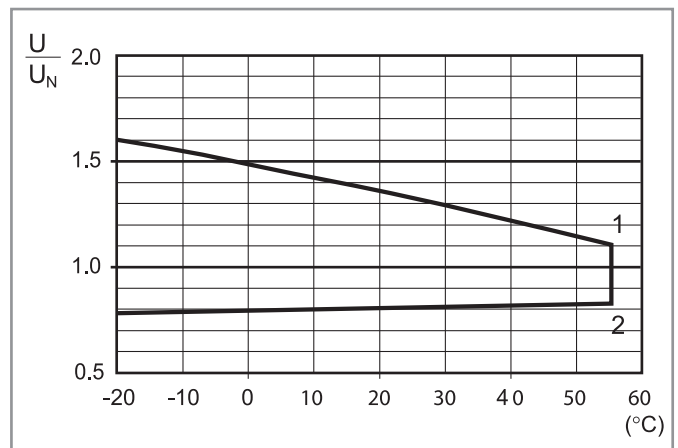
- AC coil and DC coil are most suitable for working at rated voltage.

DC coil operating range contrast ambient temperature



- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.

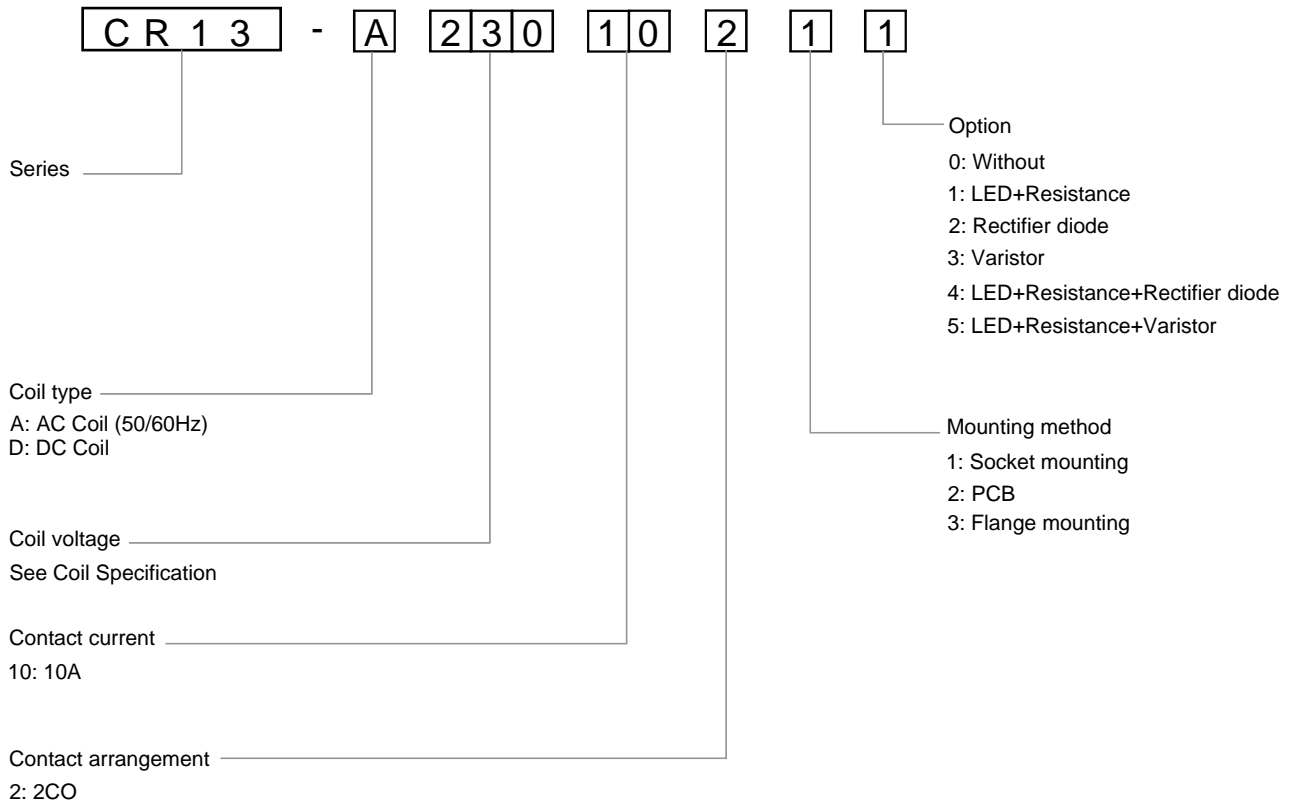
AC coil operating range contrast ambient temperature



- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.



## Ordering information



■ The default contact material of the relay is AgSnO<sub>2</sub>. If you need the contact made of AgCdO material, please indicate it clearly at the end of the order.