

HR-CR5

8A, 1-Pole safety-oriented power relay

Features

- 11.18mm distance between coil and contacts terminal
- High contacts capacity, 8A 125VAC

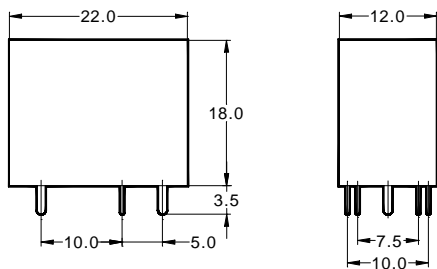
Applications

- Home appliances, Industrial control



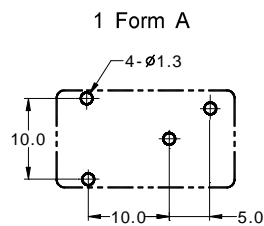
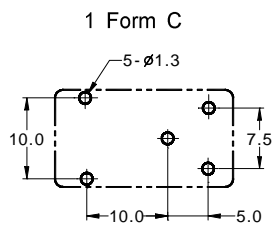
Dimensions (mm)

To convert into inches, multiply by 0.03937



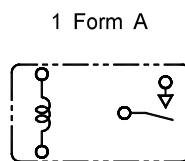
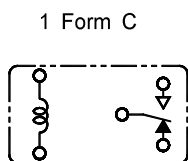
PC Board Layout

Copper-side view



Schematic

Copper-side view



HR-CR5

Contact data

Arrangement	1 Form A (SPST), 1 Form C (SPDT)	
Contact material	Ag alloy	
Initial contact resistance	100m Ω	
Rated load, resistive	5A 30VDC 8A 125VAC 5A 250VAC	
Maximum carry current	8A	
Maximum switching capacity	with DC voltage:	150W
	with AC voltage:	1,250VA
Maximum switching voltage	30VDC 200VAC	

Coil data

Nominal voltage	5VDC to 48VDC
Nominal power consumption ¹⁾	360mW
Operate voltage ²⁾	75% of nominal voltage
Release voltage ³⁾	10% of nominal voltage

^{1), 2), 3)}The values depend on coil voltage, see Part selection chart

General data

Operate time	10ms max. at nominal voltage	
Release time	10ms max. at nominal voltage	
Initial insulation resistance	100 M Ω min. (500VDC)	
Dielectric strength	Between open contacts:	750VAC _{rms} for 1 minute
	Between contacts and coil:	2,000VAC _{rms} for 1 minute
Expected life	Mechanical:	More than 10,000,000 operations
	Electrical:	More than 100,000 operations at rated load
Vibration resistance	Functional:	10~55Hz dual amplitude: 1.5mm
	Destructive:	10~55Hz dual amplitude: 1.5mm
Shock resistance	Functional:	10G min.
	Destructive:	100G min.
Ambient temperature	-40°C to +85°C (with no icing)	
Humidity	45% to 80% RH	
Weight	9.5g approx.	

Note: The above figures are initial values

HR-CR5

Part number description



HR-CR5

Coil ratings

DC05: 5VDC DC12: 12VDC
 DC06: 6VDC DC24: 24VDC
 DC09: 9VDC DC48: 48VDC

Contact arrangement

A: 1 Form A
 C: 1 Form C

Part number description is provided for reference, part number can not be arbitrarily composed. Refer to the part numbers shown in the table below. Special designs to customer specifications are possible; please contact HR.

Part selection

Part number	Nominal voltage (VDC)	Coil resistance ($\Omega \pm 10\%$)	Nominal current (mA)	Must operate voltage (VDC)	Must release voltage (VDC)	Max voltage (VDC)	Nominal power (mW)
1 Form A							
HR-CR5DC05A	5	70	71.5	3.75	0.5	5.5	360
HR-CR5DC06A	6	100	60.0	4.5	0.6	6.6	
HR-CR5DC09A	9	225	40.0	6.75	0.9	9.9	
HR-CR5DC12A	12	400	30.0	9.0	1.2	13.2	
HR-CR5DC24A	24	1,600	15.0	18.0	2.4	26.4	
HR-CR5DC48A	48	6,400	7.5	36.0	4.8	52.8	
1 Form C							
HR-CR5DC05C	5	70	71.5	3.75	0.5	5.5	360
HR-CR5DC06C	6	100	60.0	4.5	0.6	6.6	
HR-CR5DC09C	9	225	40.0	6.75	0.9	9.9	
HR-CR5DC12C	12	400	30.0	9.0	1.2	13.2	
HR-CR5DC24C	24	1,600	15.0	18.0	2.4	26.4	
HR-CR5DC48C	48	6,400	7.5	36.0	4.8	52.8	

Note: All values in the chart are measured at 23°C