

INDUSTRIAL RELAYS

The RP series has a switching current of 7A for 2 and 3 pole configurations and 5A for 4 pole configurations. This relay also offers lamp options with push button or diode options.

UL & CUL File #E223388

FEATURES

1. 2 Pole to 4 Pole types are available with switching current of 7A (2 Pole, 3 Pole) and 5A (4 Pole).
2. Select PCB terminal or Socket terminal, and for direct panel mount, flange case type is available.
3. Nominal power 900mW & AC 1.2VA.
4. Operating power 510mW.
5. Either with or without lamp is optional for AC & DC coil.
6. Low coil power consumption with high response time.

ORDERING INFORMATION

RP **4C** - **12** **D** **P** **M** **L** **F** **P**
(1) (2) (3) (4) (5) (6) (7) (8) (9)

- | | |
|---|--|
| <p>(1) Basic Designation
RP = RP Series</p> <p>(2) Contact Arrangement
2C = 2 Form C (DPDT)
3C = 3 Form C (3PDT)
4C = 4 Form C (4PDT)</p> <p>(3) Coil Voltage
DC = 6~100V
AC = 12~270V</p> <p>(4) Coil Type
D = DC
A = AC</p> <p>(5) Terminal Type
Nil = Socket
P = P.C.B.</p> | <p>(6) Cover Type
Nil = Standard
M = Flange Top</p> <p>(7) Option
Nil = Standard
L = With Lamp and Diode (DC Coil type only)
N = With Lamp
B = With Push Button
T = With Lamp and Push Button
K = With Lamp and Diode and Push Button (DC Coil type only)</p> <p>(8) Insulation
Nil = Class B
F = Class F</p> <p>(9) RoHS Compliance
P = RoHS
Nil = Standard</p> |
|---|--|

COIL RATINGS (AT 20°C)

Coil Type	Coil Nominal Voltage (V)	Coil Resistance (Ω ± 10%)	Pick-up Voltage (V) ≤	Drop-Out Voltage (V) ≥	Nominal Current (mA)
DC Standard	6	40	4.5	0.6	150
	12	160	9	1.2	75
	24	650	18	2.4	37
	48	2600	36	4.8	19
	100	11000	75	10	9
AC	12	46	9	3.6	-
	24	180	18	7.2	-
	110	3750	82.5	33	-
	120	4430	90	36	-
	220	12950	165	66	-
	240	18790	180	72	-
	270	24150	202.5	81	-

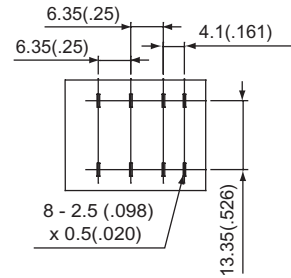
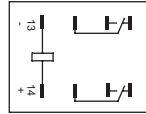
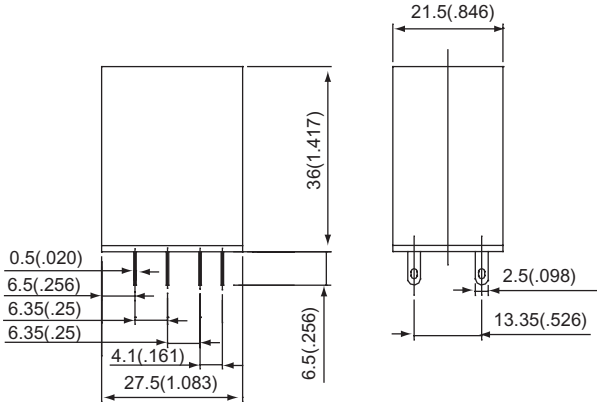
* Max continuous Voltage at 20°C: 130% of Coil Nominal Voltage.

DIMENSIONS

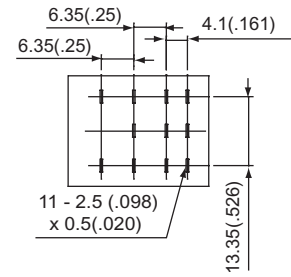
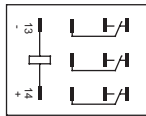
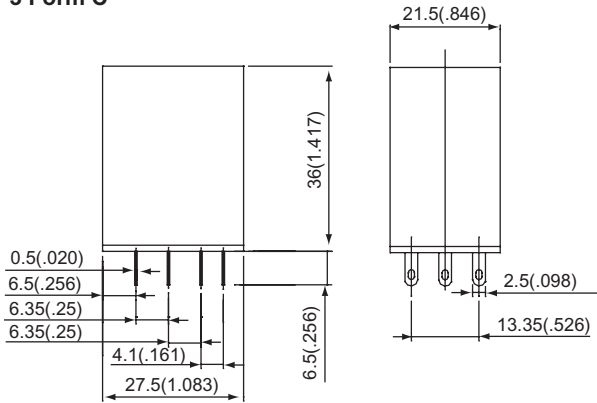
SCHEMATICS PCB LAYOUT
(bottom view) (bottom view)

General Type

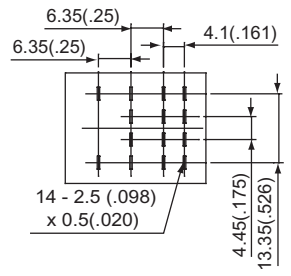
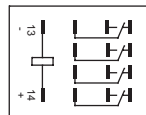
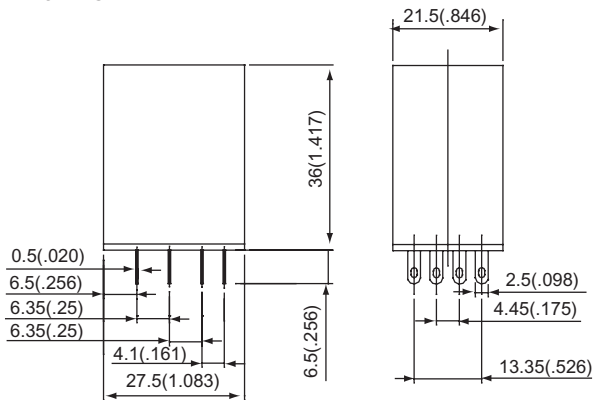
2 Form C



3 Form C



4 Form C



Note: The polarity of coil is only applied for DL and DN type.

Tolerance: ±0.2(.008) Unit: mm(inch)

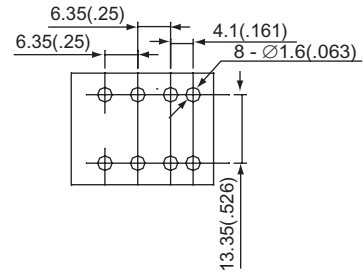
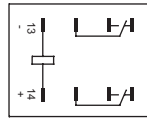
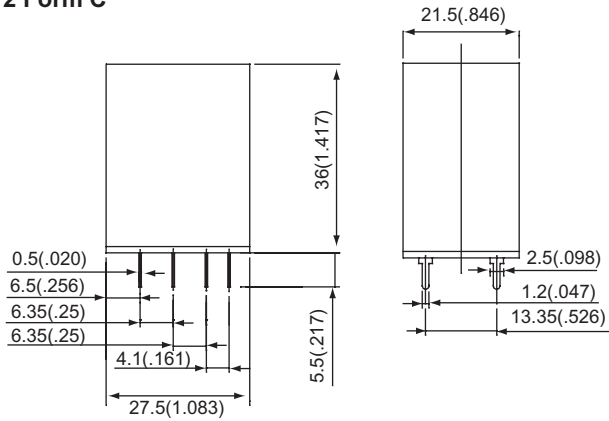
DIMENSIONS

SCHEMATICS
(bottom view)

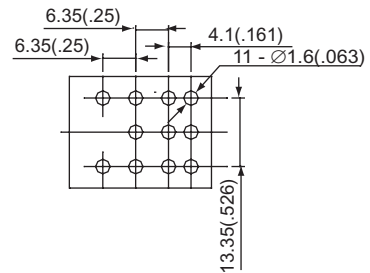
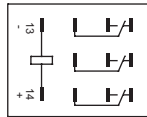
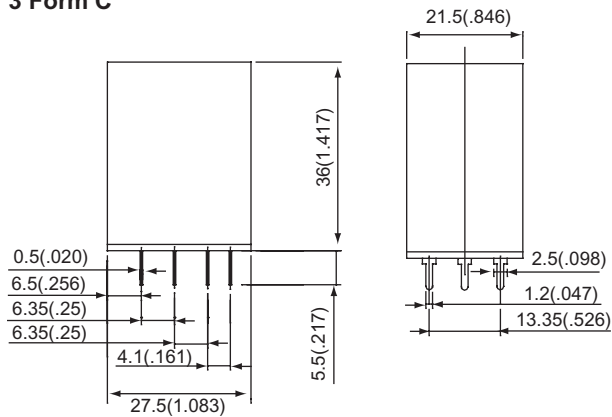
PCB LAYOUT
(bottom view)

PCB Type

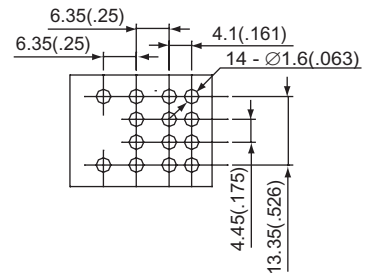
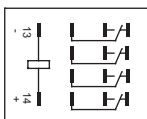
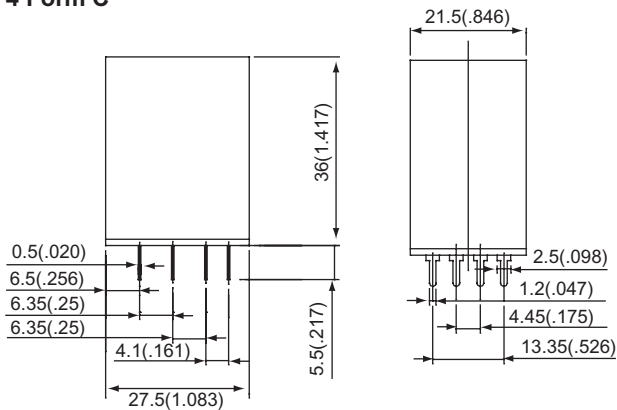
2 Form C



3 Form C



4 Form C



Note: The polarity of coil is only applied for DPL and DPN type.

Tolerance: $\pm 0.2(.008)$ Unit: mm(inch)

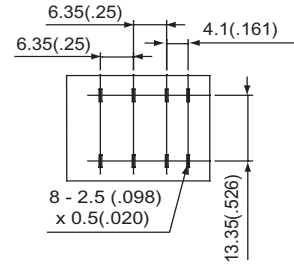
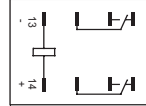
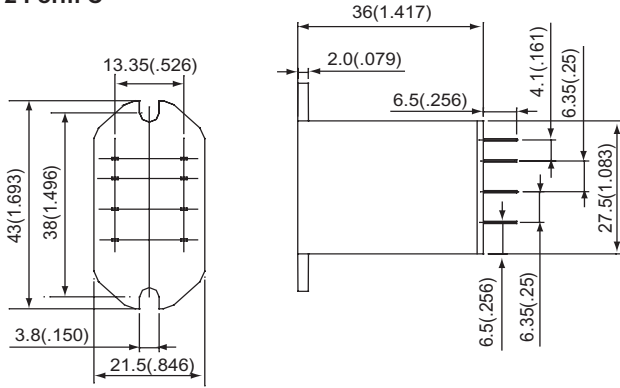
DIMENSIONS

SCHEMATICS
(bottom view)

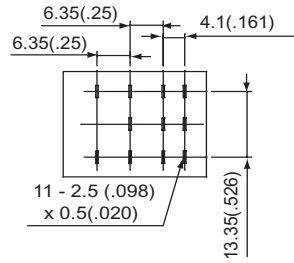
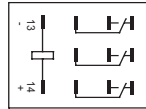
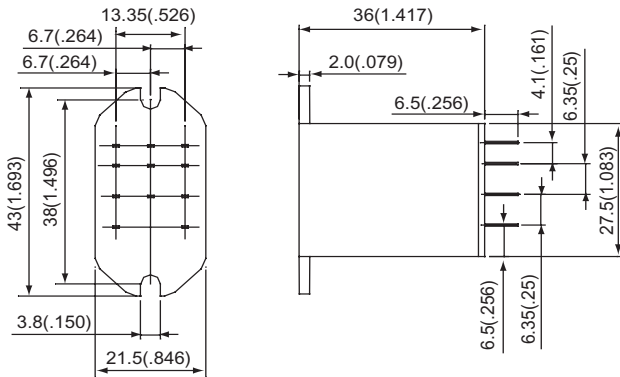
PCB LAYOUT
(bottom view)

Outline Connect Type

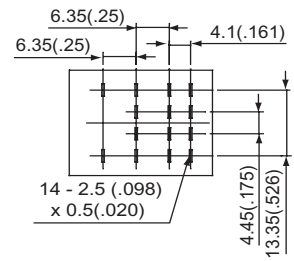
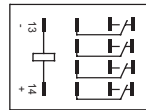
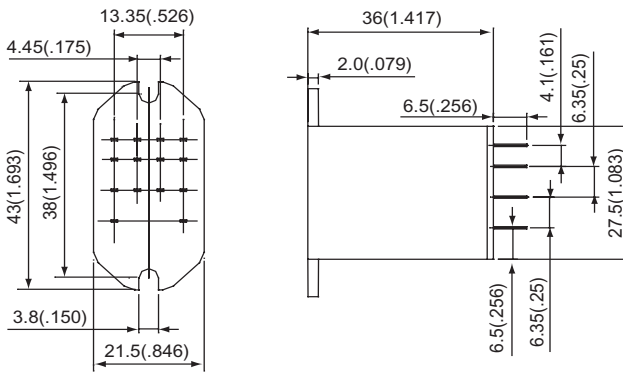
2 Form C



3 Form C



4 Form C



Note: The polarity of coil is only applied for DL and DN type.

Tolerance: ±0.2(.008) Unit: mm(inch)

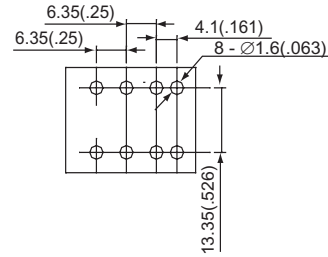
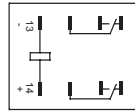
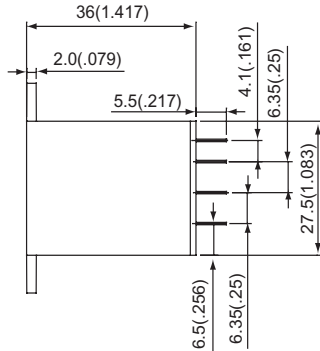
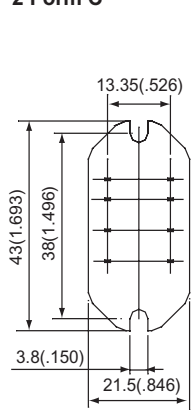
DIMENSIONS

SCHEMATICS
(bottom view)

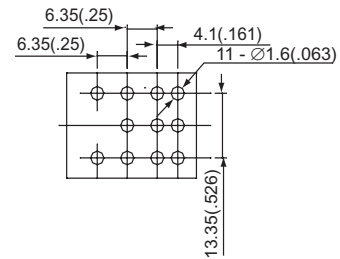
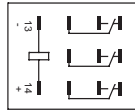
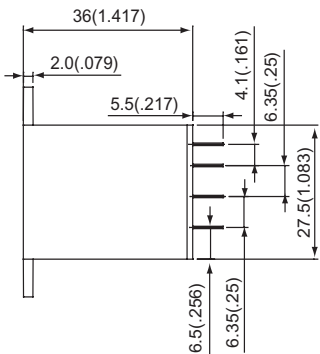
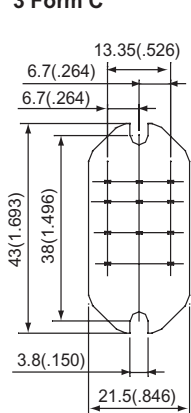
PCB LAYOUT
(bottom view)

Outline Connect PCB Type

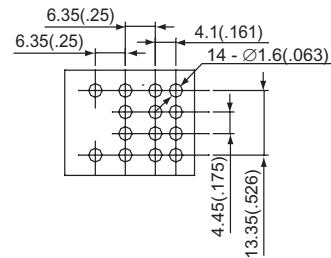
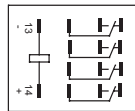
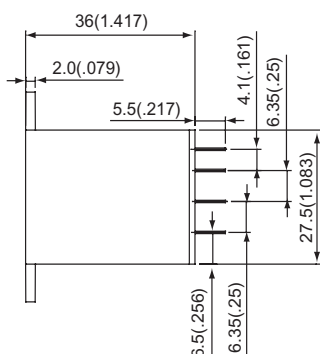
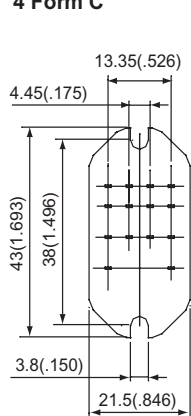
2 Form C



3 Form C



4 Form C



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Tolerance: ±0.2(.008) Unit: mm(inch)

CONTACT RATINGS

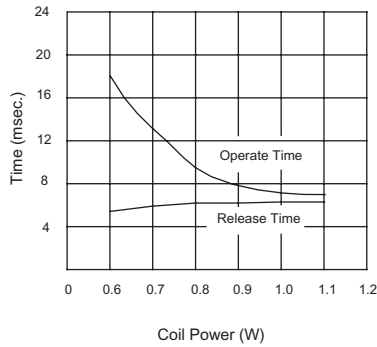
Contact Arrangement	2 Form C (DPDT)	3 Form C (3PDT)	4 Form C (4DPT)
Max. Switching Power	1750VA 210W	1750VA 210W	1250VA 150W
Max. Switching Voltage	250VAC 30VDC		
Max. Switching Current	7A	7A	5A
Contact Resistance	≤100mΩ		
Rating Load	7A / 250VAC 7A / 30VDC	7A / 250VAC 7A / 30VDC	5A / 250VAC 5A / 30VDC
Contact Material	silver alloy		

CHARACTERISTICS

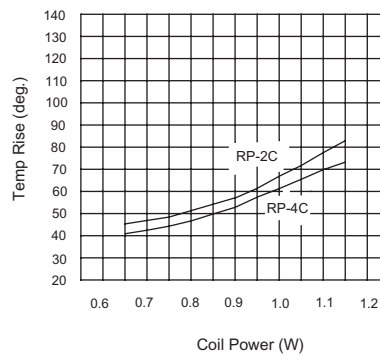
Electrical Life	1 x 10 ⁵
Mechanical Life	1 x 10 ⁷
Initial Insulation Resistance	Min. 100MΩ 500VDC
Contact Resistance (Initial)	≤100mΩ
Operate Time	≤20ms
Release Time	≤10ms
Initial Breakdown Voltage	50/60Hz 500VAC 1 min. (between open contacts) 50/60Hz 1500VAC 1 min. (between contact sets) 50/60Hz 1500VAC 1 min. (between all conductors)
Vibration Resistance	Malfunction: 10 to 55Hz at double Amplitude of 1.5mm Destructive: 10 to 55Hz at double Amplitude of 1.5mm
Shock Resistance	Malfunction: Min. 10G (11ms) Destructive: Min. 100G (6ms)
Ambient Temperature	-25°C ~ +55°C
Relative Humidity	85% at 40°C
Unit Weight	Approx. 35g

REFERENCE DATA

Timing



Coil Temperature Rise



Life Curves

