

**INDUSTRIAL RELAYS**

The RM series has a switching current of 16A for 1 pole configurations and 10A for 2 pole configurations. This relay also offers lamp options with push button or diode options.

UL & CUL File #E223388

**FEATURES**

- 1 Pole and 2 Pole types are available with switching current of 16A (1Pole) and 10A (2 Pole).
- PCB terminal and Socket terminal are selectable, and for direct panel mount, flange case type is available.
- Nominal power DC 900mW & AC 1.2VA.
- Operating power DC 510mW.
- Either with or without lamp is optional for AC& DC coil.
- Low coil power consumption with high response time.

**ORDERING INFORMATION**

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

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| <p>(1) <b>Basic Designation</b><br/>RM = RM Series</p> <p>(2) <b>Contact Arrangement</b><br/>1A = 1 Form A (SPST-NO)<br/>1B = 1 Form B (SPST-NC)<br/>1C = 1 Form C (SPDT)<br/>2C = 2 Form C (DPDT)</p> <p>(3) <b>Coil Voltage</b><br/>DC = 5~48V<br/>AC = 6~277V</p> <p>(4) <b>Coil Type</b><br/>D = DC<br/>A = AC</p> <p>(5) <b>Terminal Type</b><br/>Nil = Socket<br/>P = P.C.B.</p> | <p>(6) <b>Cover Type</b><br/>Nil = Standard<br/>M = Flange Top</p> <p>(7) <b>Option</b><br/>Nil = Standard<br/>L = With Lamp and Diode (DC Coil type only)<br/>N = With Lamp<br/>B = With Push Button<br/>T = With Lamp and Push Button<br/>K = With Lamp and Diode and Push Button (DC Coil type only)</p> <p>(8) <b>Insulation</b><br/>Nil = Class B<br/>F = Class F</p> <p>(9) <b>RoHS Compliance</b><br/>P = RoHS<br/>Nil = Standard</p> |
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**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	-

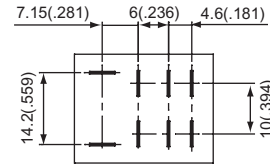
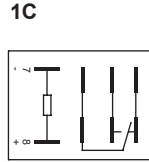
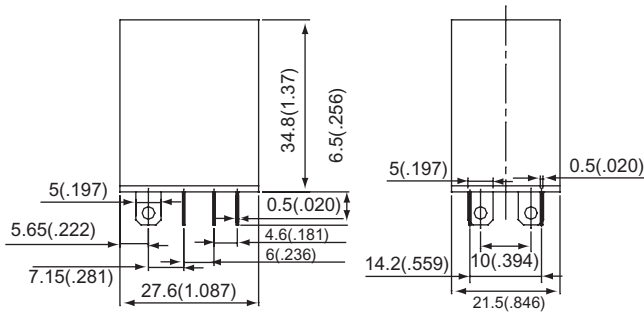
\* Max continuous Voltage at 20°C: 130% of Coil Nominal Voltage.

**DIMENSIONS**

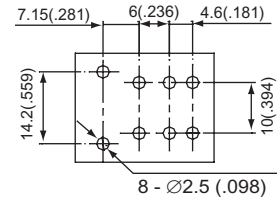
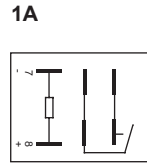
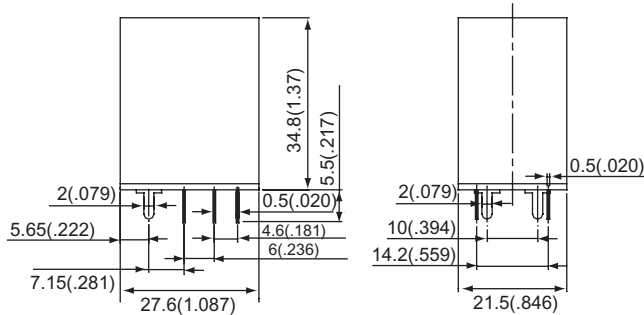
**SCHEMATICS**  
(bottom view)

**PCB LAYOUT**  
(bottom view)

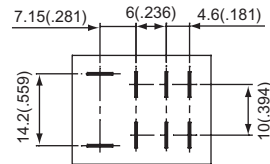
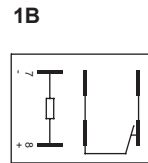
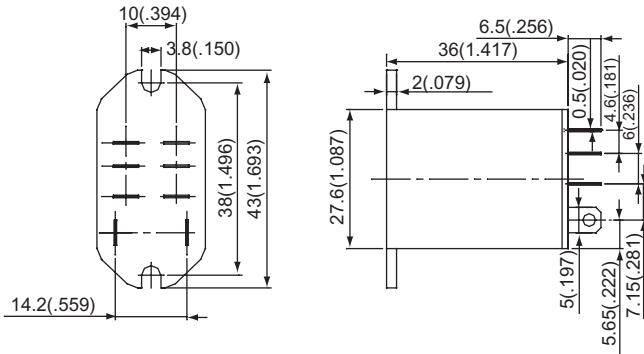
**General Type**



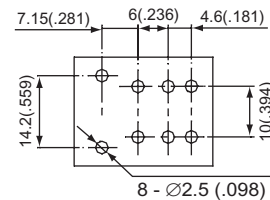
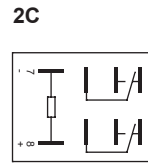
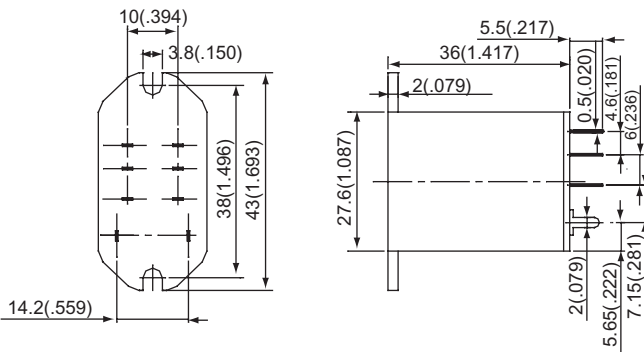
**PCB**



**Outline Connect**



**Outline Connect PCB Type**



Unit: mm(inch)

Tolerance: ±0.2(.008)

Note: The polarity of coil is only applied for DL, DN, DPL, DPN type.

**CONTACT RATINGS**

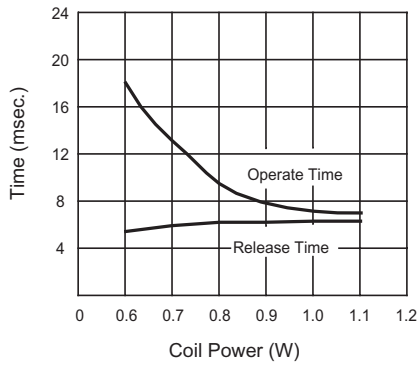
Contact Arrangement	1A (SPST-NO)	1B (SPST-NC)	1C (SPDT)	2C (DPDT)
Max. Switching Power	5000VA 480W	4000VA 480W		2500VA 300W
Max. Switching Voltage	250VAC 30VDC			
Max. Switching Current	20A	16A		10A
Contact Resistance	≤100mΩ			
Rating Load	20A / 250VAC 16A / 30VDC	16A / 250VAC 16A / 30VDC		10A / 250VAC 10A / 30VDC
Contact Material	silver alloy			

**CHARACTERISTICS**

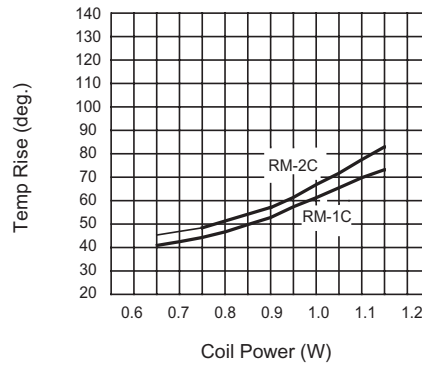
Electrical Life	1 x 10 <sup>5</sup> min.
Mechanical Life	1 x 10 <sup>7</sup> min.
Initial Insulation Resistance	Min. 100MΩ 500VDC
Contact Resistance (Initial)	≤100mΩ
Operate Time	≤20ms max.
Release Time	≤10ms max.
Initial Breakdown Voltage	50/60Hz 500VAC 1 min. (between open contacts) 50/60Hz 1500VAC 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**

