



INDUSTRIAL RELAYS

UL & CUL File #E256619

FEATURES

1. Small size (10.2 x 20.6 x 15.3mm) at 10A switching capacity.
2. Surge resistiveness of 5000V.
3. Sealed or unsealed types available.

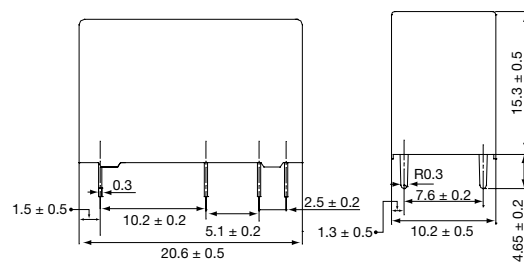
ORDERING INFORMATION

RK 1C - 12 H S F
(1) (2) (3) (4) (5) (6)

- | | |
|--|--|
| <p>(1) Basic Designation
RK = RK Series</p> <p>(2) Contact Arrangement
1A = 1 Form A (SPST-NO)
1C = 1 Form C (SPDT)</p> <p>(3) Coil Voltage
3~48V</p> | <p>(4) Coil Sensitivity
Nil = 0.45W
H = 0.20W</p> <p>(5) Enclosure
Nil = Unsealed type
S = Sealed type</p> <p>(6) Insulation
Nil = Standard
B = Class B
F = Class F</p> |
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DIMENSIONS

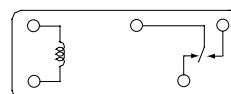
Unit: mm



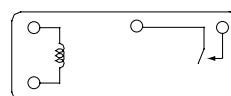
SCHEMATICS

Bottom view

1C



1A

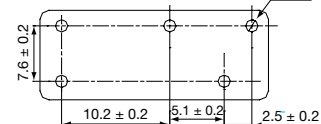


PCB LAYOUT

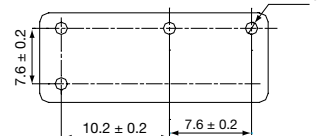
Bottom view

Unit: mm

1C



1A



COIL RATINGS (AT 20°C)

Power Consumption/ Coil Sensitivity	Coil Nominal Voltage (VDC)	Coil Resistance Ω(± 10%)	Pick-Up Voltage (VDC) max.	Nominal Current (mA)	Drop-Out Voltage (VDC) min.	Max. Allowable Voltage
Coil Sensitivity Nil = 0.45W	3	20.0	75%	150	5%	130% of nominal voltage
	5	55.0		91		
	6	80.0		75		
	9	180		50		
	12	320		37.5		
	18	720		25.0		
	24	1280		18.8		
	48	5120		9.4		
Coil Sensitivity H = 0.20W	3	45.0	75%	66.7	5%	130% of nominal voltage
	5	125		40		
	6	180		33.3		
	9	405		22.2		
	12	720		16.7		
	18	1620		11.1		
	24	2880		8.3		
	48	11520		4.2		





CONTACT RATINGS

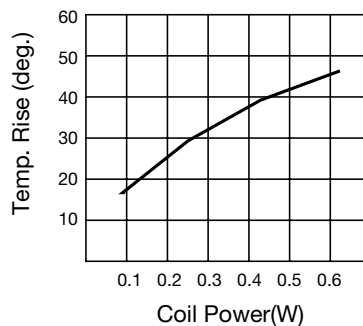
Coil Sensitivity / Nominal Operating Power	Nil = 0.45W	H = 0.20W
Contact Arrangement	1C:1A	
Max. Switching Power	1250VA 150W	600VA 90W
Max. Switching Voltage	265VAC 30VDC	
Max. Switching Current	10A	5A
Contact Resistance (By voltage drop 6V 1A)	50mΩ max.	
UL/ C-UL Rating	1A	1A
Resistive Load (cos Ø = 1)	10A / 120VAC 5A / 250VAC 5A / 30VDC	3A / 250VAC 3A / 30VDC
	1C	
	NC: 3A / 250VAC 3A / 30VDC NO: 5A / 250VAC 5A / 30VDC	
Inductive Load (cos Ø = 0.75 ~ 0.8)	1.5A / 250VAC 1.5A / 30VDC	1A / 250VAC 1A / 30VDC
Contact Material	silver alloy	

CHARACTERISTICS

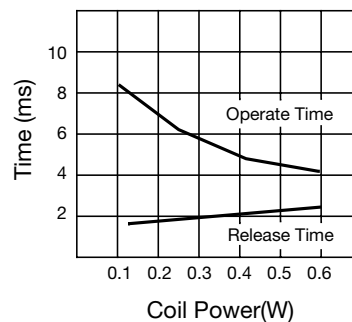
Electrical Life (at 20cpm)	1 x 10 ⁵
Mechanical Life (at 120cpm)	1 x 10 ⁷
Initial Insulation Resistance	Min. 1000MΩ 500VDC
Operate Time	0.45W = 10ms max., 0.20W = 15ms max.
Release Time	4ms max.
Initial Breakdown Voltage	50/60Hz 1000VAC 1 min. (between open contacts) 50/60Hz 5000VAC 1 min. (between coil & contact)
Vibration Resistance	Functional: 10 to 55Hz at double Amplitude of 1.5mm Destructive: 10 to 55Hz at double Amplitude of 1.5mm
Shock Resistance	Functional: Min. 10G Destructive: Min. 100G
Insulation Withstand Voltage	5000V 1.2 x 50ms (between coil and contacts)
Ambient Temperature	-40°C ~ +85°C
Operating Humidity	45 to 85% RH
Unit Weight	Approx. 9.5 g

REFERENCE DATA

Coil Temperature Rise



Operate Time/ Release Time



Life Expectancy

