



INDUSTRIAL RELAYS

UL & CUL File #E256619

FEATURES

1. Ultra-miniature size with universal terminal footprint
2. High contact capacity : 12A
3. Sealed types available
4. Low coil power consumption

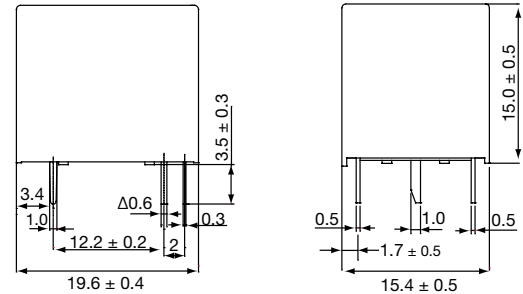
ORDERING INFORMATION

RD 1A - 12 S F
(1) (2) (3) (4) (5)

- | | |
|--|--|
| <p>(1) Basic Designation
RD = RD Series</p> <p>(2) Contact Arrangement
1A = 1 Form A (SPST-NO)
1B = 1 Form B (SPST-NC)
1C = 1 Form C (SPDT)</p> <p>(3) Coil Voltage
3~48V</p> | <p>(4) Enclosure
Nil = Unsealed type
S = Sealed type</p> <p>(5) Insulation System
Nil = Standard
F = Class F</p> |
|--|--|

DIMENSIONS

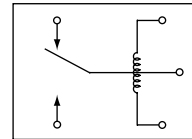
Unit: mm



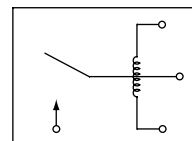
SCHEMATICS

Bottom view

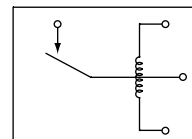
1C



1A



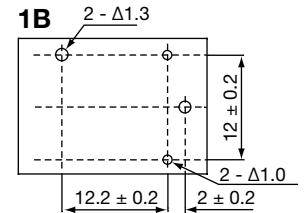
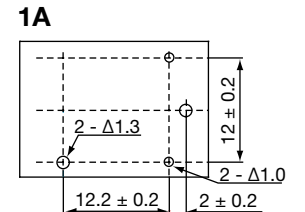
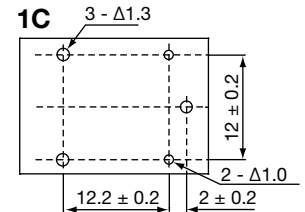
1B



PCB LAYOUT

Bottom view

Unit: mm



COIL RATINGS (AT 20°C)

Coil Nominal Voltage (VDC)	Coil Resistance $\Omega(\pm 10\%)$	Pick-Up Voltage (VDC) max.	Drop-Out Voltage (VDC) min.	Nominal Operating Power (W)	Max. Allowable Voltage
3	25	2.25	0.15	0.36	130% of nominal voltage
5	69	3.75	0.25		
6	100	4.50	0.30		
9	225	6.75	0.45		
12	400	9.00	0.60		
18	900	13.5	0.90		
24	1600	18.0	1.20		
48	6400	36.0	2.40		





CONTACT RATINGS

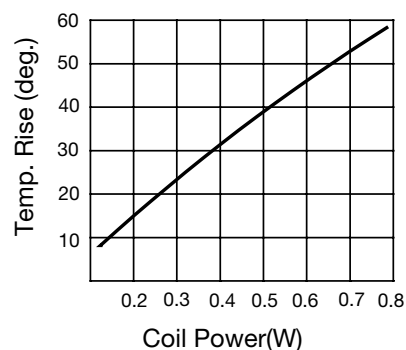
Contact Arrangement	1C; 1A ; 1B
Max. Switching Power	1250VA 280W
Max. Switching Voltage	250VAC 125VDC
Max. Switching Current	12A
Contact Resistance (By voltage drop 6V 1A)	50mΩ max.
UL/ C-UL Resistive Load (cos Ø = 1)	12A / 125VAC 15A /125VAC(NO) 10A / 250VAC(NO)
Inductive Load (cos Ø = 0.75 ~ 0.8) 1A Arrangement only	10A / 28VDC 7A / 250VAC 3A / 125VAC
Contact Material	silver alloy

CHARACTERISTICS

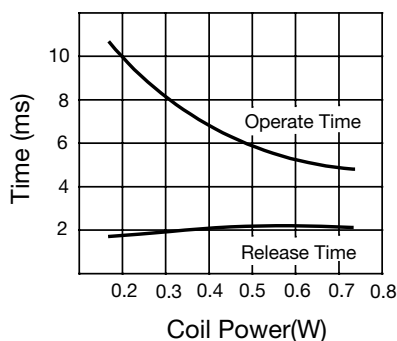
Electrical Life (at 20cpm)	1 x 10 ⁵
Mechanical Life (at 180 cpm)	1 x 10 ⁷
Initial Insulation Resistance	Min. 100MΩ 500VDC
Operate Time	8ms max.
Release Time	5ms max.
Initial Breakdown Voltage	50/60Hz 750VAC 1 min. (between open contacts) 50/60Hz 1500VAC 1 min. (between coil & contact)
Vibration Resistance	Functional: 10 to 55Hz at double Amplitude of 1.5mm Destruction: 10 to 55Hz at double Amplitude of 1.5mm
Shock Resistance	Functional: Min. 10G Destruction: Min. 100G
Ambient Temperature	-40°C ~ +85°C
Ambient Temperature (F Class)	-40°C ~ +105°C
Temperature Rise (max.)	65°
Operating Humidity	45 to 85% RH
Unit Weight	Approx. 9g

REFERENCE DATA

Coil Temperature Rise



Operate Time/ Release Time



Life Expectancy

