

INDUSTRIAL RELAYS

UL & CUL File #E223388, File#E256619

The RG Relay series offers 30A switching capacity. It also offers both PCB terminal and Quick Connect terminal types as well as open and sealed types.

FEATURES

1. Single contact RG series relay offers 30A switching capacity.
2. Up to 30A switching.
3. Nominal power 930mW.
4. Operating power 520mW.
5. Both PCB Terminal & Quick Connect Terminal.
6. Open type without dust cover or sealed cover types available.

ORDERING INFORMATION

RG 1A - 12 D C S F P
(1) (2) (3) (4) (5) (6) (7) (8)

- | | |
|---|--|
| <p>(1) Basic Designation
 RG = RG 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
 DC = 5~48V
 AC = 6~277V</p> <p>(4) Coil Type
 D = DC
 A = AC</p> | <p>(5) Terminals
 Nil = No Common
 C = Common Terminal
 A = Quick Connect</p> <p>(6) Enclosure
 Nil = Open type
 (Without Dust Cover)
 S = Sealed type</p> <p>(7) Insulation
 Nil = Class B
 F = Class F</p> <p>(8) RoHS Compliance
 P = RoHS
 Nil = Standard</p> |
|---|--|

COIL RATINGS (AT 20°C)

Coil Type	Coil Nominal Voltage (V)	Coil Resistance ($\Omega \pm 10\%$)	Pick-Up Voltage (V)	Drop-Out Voltage (V)	Nominal Current (mA)
DC Standard Coils	5	27	3.75	0.5	185
	6	40	4.5	0.6	150
	9	97	6.75	0.9	93
	12	155	9	1.2	77
	15	281	11.25	1.5	-
	24	660	18	2.4	36
	48	2560	36	4.8	19
AC	6	10	5.1	0.6	-
	12	43	10.2	1.2	-
	24	160	20.4	2.4	-
	110	3160	93.5	11	-
	220	13490	187	22	-
	277	19900	235.4	27.7	-

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

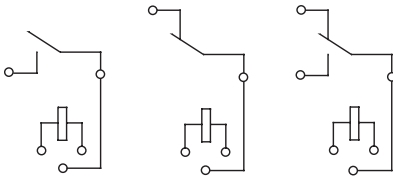
SCHEMATICS

Common Terminals (C)

1A

1B

1C

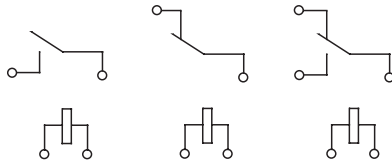


No Common (Nil)

1A

1B

1C

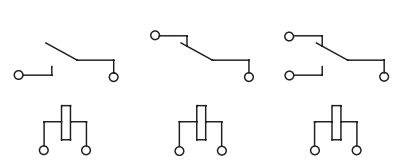


Quick Connect (A)

1A

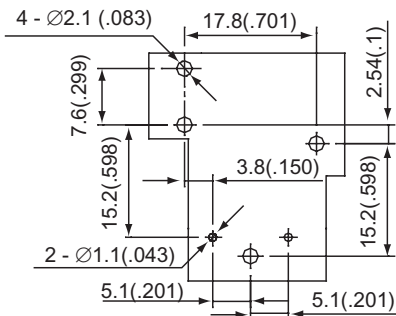
1B

1C

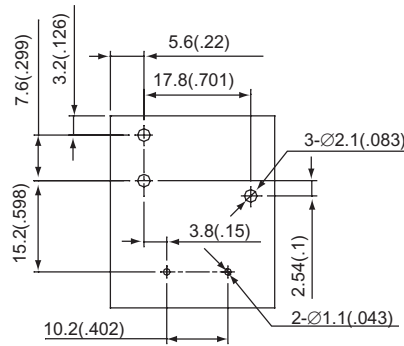


PCB LAYOUT
(bottom view)

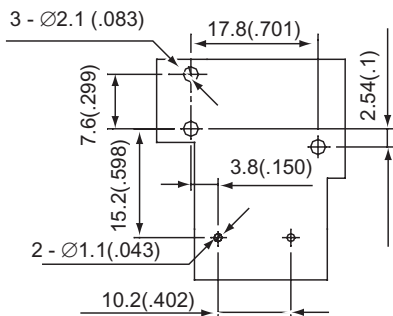
Common Terminals(C)



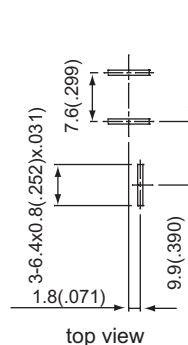
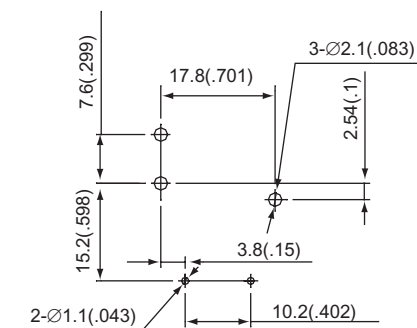
Quick Connect- Sealed Type



No Common (Nil)



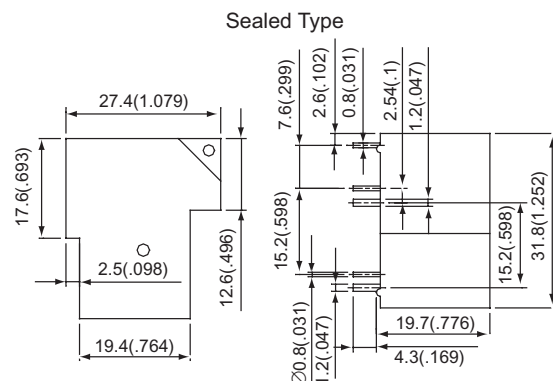
Quick Connect- Open Type



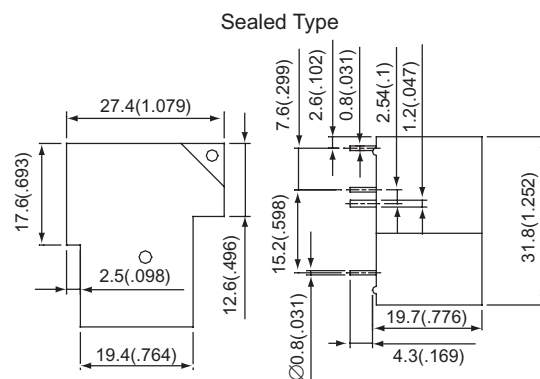
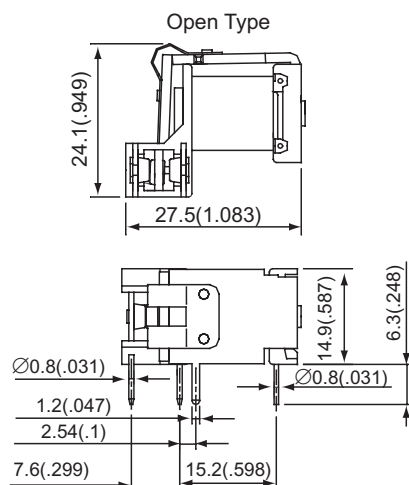
top view

Unit: mm(inch)

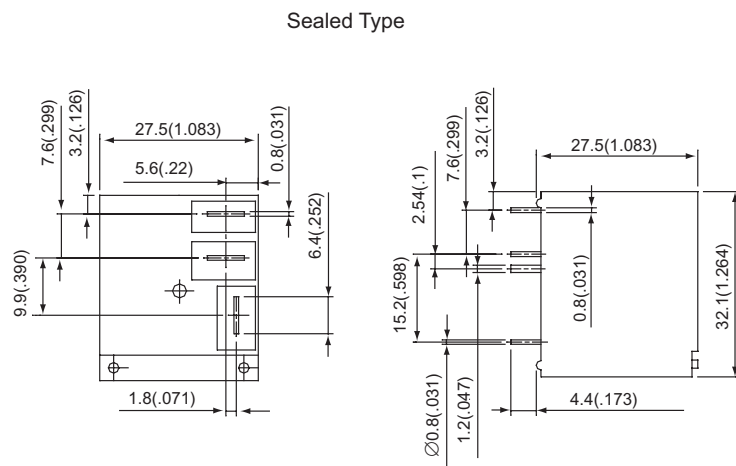
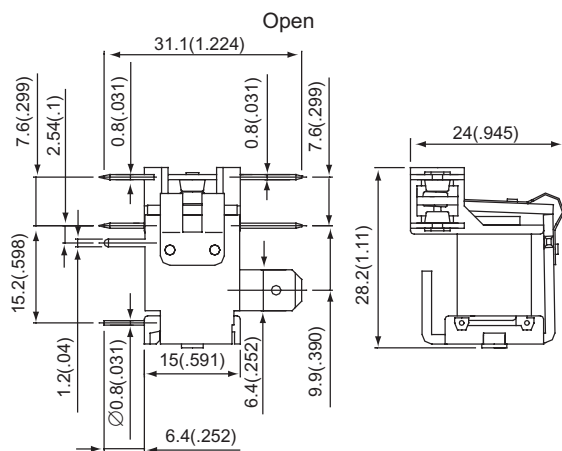
Common Terminals (C)



No Common (Nil)



Quick Connect (A)



Tolerance: $\pm 0.2(.008)$

CONTACT RATINGS

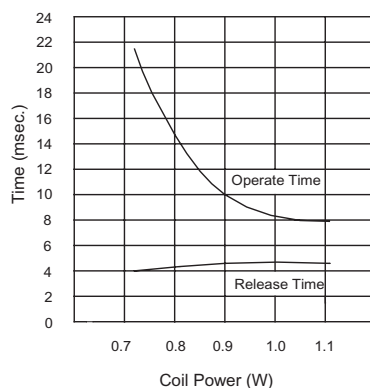
Contact Arrangement	1 Form A (SPST-NO)	1 Form B (SPST-NC)	1 Form C (SPDT)
Max. Switching Power	7500VA 600W	5000VA 300W	7500VA 600W
Max. Switching Voltage	277VAC 30VDC		
Max. Switching Current	30A	20A	30A
Contact Resistance	≤50mΩ		
Resistive Load	20A / 277VAC 19.8A / 277VAC 30A / 250VDC 20A / 30VDC	15A / 277VAC 10A / 30VDC	NO: 20A / 277VAC 20A / 30VDC
			NC: 15A / 277VAC 10A / 30VDC
General Purpose Load	10A / 277VAC	8A / 277VAC	NO: 10A / 277VAC
			NC: 8A / 277VAC
Horse Power Load (Cos φ : 0.4~0.5)	2HP / 250VAC 1HP / 125VAC	1/2HP / 250VAC 1/4HP / 125VAC	NO: 2HP / 250VAC 1HP / 125VAC
			NC: 1/2HP 250VAC 1/4HP / 125VAC
Motor Load	FLA 10.3 LRA 61.8 / 277VAC FLA 11.2 LRA 67.2 / 250VAC FLA 12 / 250VAC FLA 16 LRA 96 /240VAC FLA 16 LRA 96 /120VAC FLA 16 /125VAC	FLA 4.9 / 250VAC FLA 5.8 /125VAC	NO: FLA 12 / 250VAC FLA 16 / 125VAC
			NC: FLA 4.9 / 250VAC FLA 5.8 / 125VAC
Ballast	20A / 277VAC		NO: 20A / 277VAC
			NC:
Contact Material	silver alloy	silver alloy	silver alloy

CHARACTERISTICS

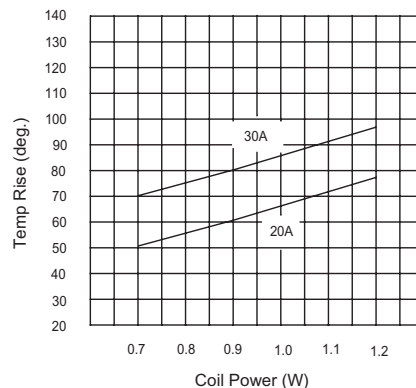
Electrical Life	1 x 10 ⁵
Mechanical Life	1 x 10 ⁷
Initial Insulation Resistance	Min. 500MΩ 500VDC
Contact Resistance (Initial)	≤50mΩ
Operate Time	≤15ms
Release Time	≤15ms
Initial Dielectric Strength	50/60Hz 2500VAC 1 min. (between all conductors) (For No Common Terminal (Nil)) 50/60Hz 2500VAC 1 min. (between all conductors) (For Common Terminals (C)) 50/60Hz 1500VAC 1 min. (between open contact)
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: 10G(11ms) Destructive: 100G(6ms)
Ambient Temperature	-55°C ~ +85°C
Relative Humidity	85% at 40°C
Unit Weight	Quick Connect: Approx. 30g Open and Sealed Types: Approx. 25g

REFERENCE DATA

Timing



Coil Temperature Rise



Life Curves

