INDUSTRIAL RELAYS

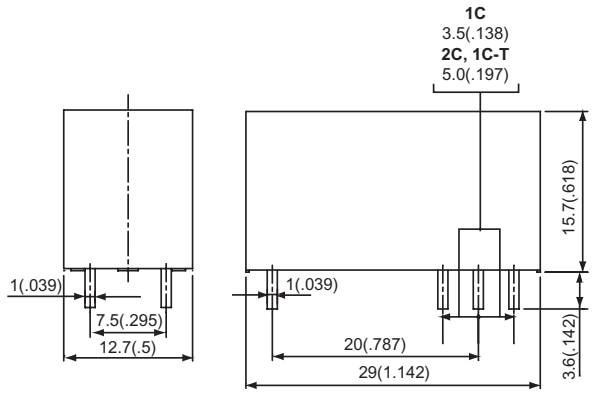
The RE Series has 16A switching capabilities as well as a sealed and unsealed type available. This WPI industrial relay has 1 & 2 pole configurations.

UL & CUL File #E245348

FEATURES

1. 16A switching capabilities.
2. 1 & 2 pole configurations.
3. 5KV dielectric coil to contacts.
4. Height is 15.7mm.
5. Sealed & unsealed type available.
6. Creepage distance 10mm.
7. Sensitive coil 250mW.

DIMENSIONS



Unit: mm(inch) Tolerance: ±0.2(.008)

ORDERING INFORMATION

RE	1A	-	12	H	S	T	F	P
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)

(1) Basic Designation
RE = RE Series

(2) Contact Arrangement
1A = 1 Form A (SPST-NO)
1C = 1 Form C (SPDT)
2A = 2 Form A (DPST-NO)
2C = 2 Form C (DPDT)

(3) Coil Voltage
5~110V

(4) Coil Sensitivity
Nil =Standard
H = High sensitivity

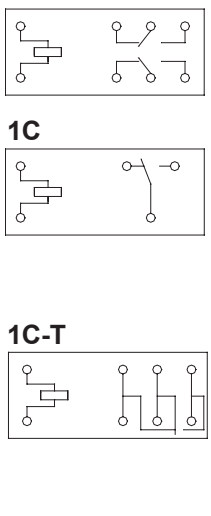
(5) Enclosure
Nil = Unsealed type
S = Sealed type

(6) Capacity
Nil = Standard
T = High Current

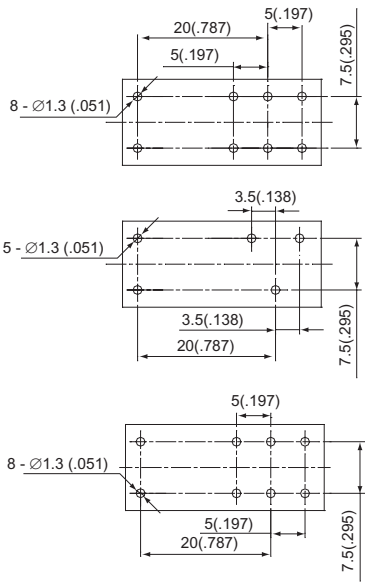
(7) Insulation
Nil = Class B
F = Class F

(8) RoHS Compliance
P = RoHS
Nil = Standard

SCHEMATICS (bottom view)



PCB LAYOUT (bottom view)



Unit: mm(inch)

COIL RATINGS (AT 20°C)

Coil Type	Coil Nominal Voltage (V)	Coil Resistance (Ω)	Pick-Up Voltage (V)	Drop-Out Voltage (V)	Nominal Current (mA)
DC Standard Coils	5	62 ± 10%	3.5	0.5	80.6
	6	90 ± 10%	4.2	0.6	66.7
	12	360 ± 10%	8.4	1.2	33.3
	24	1440 ± 10%	16.8	2.4	16.7
	48	5520 ± 10%	33.6	4.8	8.7
	110	26600 ± 12%	77	11.0	4.1
DC High Sensitivity Coils**	5	100 ± 10%	3.7	0.5	50
	6	144 ± 10%	4.5	0.6	41.7
	12	576 ± 10%	9.0	1.2	20.8
	24	2304 ± 10%	18.0	2.4	10.4
	48	9216 ± 10%	36.0	4.8	5.2

* Max continuous Voltage at 20°C: 130% of Coil Nominal Voltage.
** "T" High Current configuration is not available with a high sensitive coil.

CONTACT RATINGS

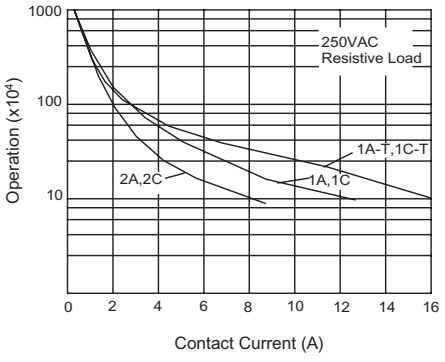
Contact Arrangement	RE High Current (T) 1 Form A (SPST-NO) 1 Form C (SPDT)	RE Standard Current (Nil) 1 Form A (SPDT-NO) 1 Form C (SPDT)	RE High Sensitivity (H) 1 Form A (SPST-NO) 1 Form C (SPDT)	RE Standard Current (Nil) 2 Form A (DPST-NO) 2 Form C (DPDT)
Max. Swittching Power	4000VA 480W	3000VA 360W	2500VA 300W	2000V 240W
Mac. Switching Voltage	250VAC 30VDC	250VAC 30VDC	250VAC 30VDC	250VAC 30VDC
Max. Switching Current	20A	12A	10A	8A
Contact Resistance	≤100mW	≤100mW	≤100mW	≤100mW
Resistive Load	16A / 250VAC 20A / 125VAC 16A / 30VDC	12A / 250VAC 12A / 30VDC	10A / 250VAC 10A / 30VDC	8A / 250VAC 8A / 30VDC
Inductive Load **(Cos Φ = 0.4, L/R = 7ms)**	8A / 250VAC 8A / 30VDC	6A / 250VAC 6A / 30VDC	5A / 250VAC 5A / 30VDC	2A / 250VAC 2A / 30VDC
Motor Load **(Cos Φ = 0.6)**	1HP / 240VAC 1/2HP / 120VAC	1/2HP / 240VAC 1/3HP / 120VAC	1/2HP / 240VAC 1/3HP / 120VAC	1/2HP / 240VAC 1/4HP / 120VAC
Pilot Duty Load	720VA / 240VAC (Form A Only)	720VA / 240VAC (Form A Only)	720VA / 240VAC (Form A Only)	360VA / 240VAC (Form A Only)
TV Rating	TV-8	TV-5	TV-5	TV-3
Contact Material	silver alloy	silver alloy	silver alloy	silver alloy

CHARACTERISTICS

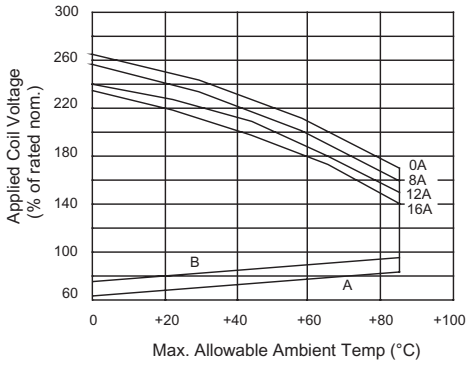
Electrical Life	1 x 10^5
Mechanical Life	1 x 10^7
Initial Insulation Resistance	Min. 1000MΩ 500VDC
Contact Resistance (Initial)	≤100mΩ
Operate Time	≤7ms(excluding bounce) typical, 15ms max at nominal voltage
Release Time	≤3ms(excluding bounce) typical, 5ms max at nominal voltage
Initial Dielectric Strength	50/60Hz 1000VAC 1 min. (between open contact) 50/60Hz 2500VAC 1 min. (between all conductors) 50/60Hz 5000VAC 1 min. (between contact and coil)
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: 10G(6ms)
Ambient Temperature	-40°C ~ +85°C
Relative Humidity	85% at 40°C
Unit Weight	Approx. 13g

REFERENCE DATA

Life Curves



Max. Ambient Temperature vs. Coil Voltage



A: Coil temperature = Ambient temperature.
B: 110% of nominal coil voltage at rated contact load

Max. DC Load Breaking Capicity