

Applicable sockets:
SO-1058-8913

Application Notes:
101
102
103E
007

- Magnetic latch operation
- All weld construction

- Contact arrangement

3 PDT configuration in one inch cube

- Qualified to

MIL-PRF-6106

PRINCIPLE TECHNICAL CHARACTERISTICS

- **Contacts rated at** 28 Vdc; 115 Vac, 400 Hz, 1Ø and 115/200 Vac, 400 Hz 3Ø
- **Weight** 0.188 lb max
- **Dimensions** 1.01in x 1.01in x 1.00in
- **Hermetically sealed, corrosion resistant metal can**

CONTACT ELECTRICAL CHARACTERISTICS

Contact rating per pole and load type [1]	Load current in Amps			
	@28 Vdc	@115 Vac 400 Hz	@115/200 Vac 400 Hz, 3Ø	@115/200 Vac 60 Hz, 3Ø [2]
Resistive [2]	25	25	25	2.5
Inductive [3]	12	15	15	2.5
Motor	10	10	10	2
Lamp	5	5	5	1
Overload	50	80	80	N/A
Rupture	60	100	100	N/A

COIL CHARACTERISTICS (Vdc)

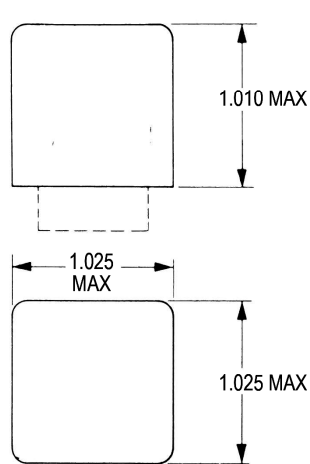
CODE	A	B	C	M	N [7]	R [7]	V [7]
Nominal operating voltage	28	12	6	48	28	12	6
Maximum operating voltage @ +125°C	29	14.5	7.3	59	29	14.5	7.3
Maximum pickup voltage							
- Cold coil @ +125° C	18	9	4.5	24	18	9	4.5
- During high temp test @ +125° C	19.8	9.9	5	34.5	19.8	9.9	5
- During continuous current test @ +125° C	22.5	11.25	5.7	42	22.5	11.25	5.7
Coil resistance $\Omega \pm 10\%$ at +25° C except types "C" & "V" +20%, -10%	450	112	28	1500	450	112	28

GENERAL CHARACTERISTICS

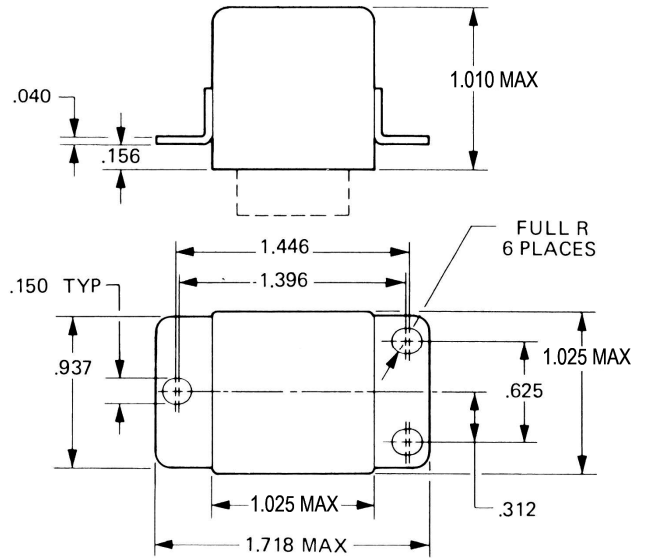
Temperature range	-70°C to +125°C
Minimum operating cycles (life) at rated load	50,000 [3]
Minimum operating cycles (life) at 25% rated load	200,000
Dielectric strength at sea level	
- All circuits to ground and circuit to circuit	1250 Vrms
- Coil to ground and coil to coil	1000 Vrms
Dielectric strength at altitude 80,000 ft	500 Vrms [4]
Insulation resistance	
- Initial (500 Vdc)	100 M Ω min
- After environmental tests (500 Vdc)	50 M Ω min
Sinusoidal vibration (A and D mounting)	0.12 d.a. / 10 to 70 Hz 30G / 70 to 3000 Hz
Sinusoidal vibration (J mounting)	0.12 d.a. / 10 to 57 Hz 20G / 57 to 3000 Hz
Random vibration	
- Applicable specification	MIL-STD-202
- Method	214
- Test condition - A and D mounting	1G (0.4G ² /Hz, 50 to 2000 Hz)
- Test condition - J mounting	1E (0.2G ² /Hz, 50 to 2000 Hz)
- Duration	15 minutes each plane
Shock (A and D mounting)	200G / 6 ms ± 1
Shock (J mounting)	100G / 6 ms ± 1
Operate time at nominal voltage@25°C	15 ms max
Release time at nominal voltage@25°C	15 ms max
Maximum contact opening time under vibration and shock@25°C	10 μ s
Contact make bounce at nominal voltage@25°C	1 ms max
Weight maximum	0.188 lb

Unless otherwise noted, the specified temperature range applies to all relay characteristics.

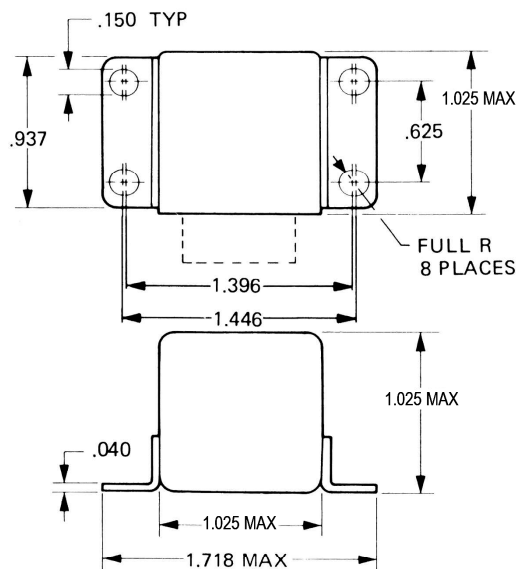
MOUNTING STYLES



MOUNTING STYLE A



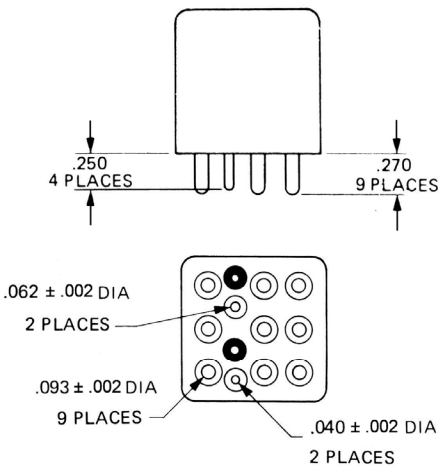
MOUNTING STYLE D



MOUNTING STYLE J

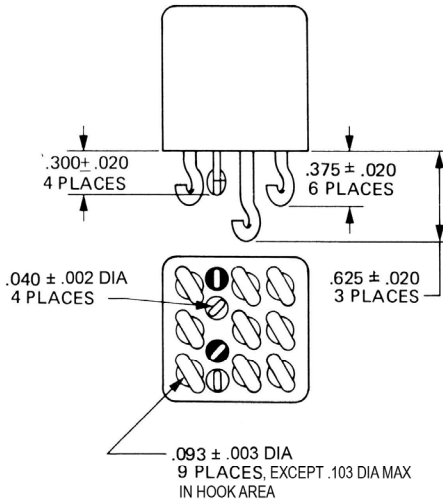
TERMINAL TYPES

FINISH: CASE – PAINTED (optional) / UNPAINTED
TERMINALS – TIN/LEAD PLATED



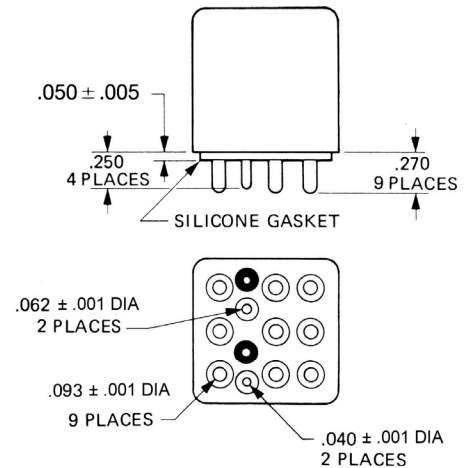
TERMINAL TYPE 1

FINISH: CASE – PAINTED (optional) / UNPAINTED
TERMINALS – TIN/LEAD PLATED



TERMINAL TYPE 2

FINISH: CASE – PAINTED (optional) / UNPAINTED
TERMINALS – GOLD PLATED

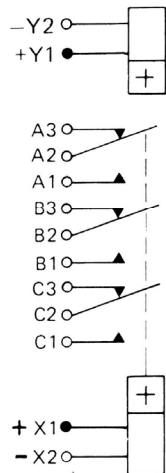


TERMINAL TYPE 4

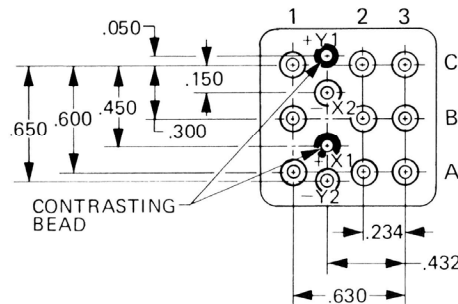
Standard Tolerance: .xx ± .03; .xxx ± .010

DIAGRAMS

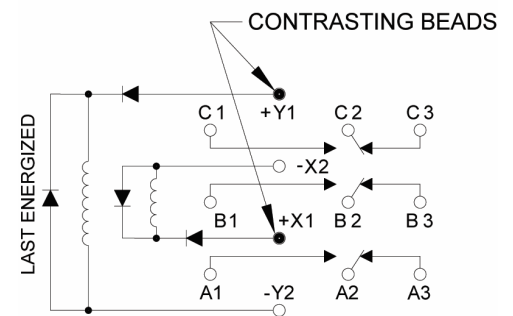
SCHEMATIC DIAGRAM



STANDARD TERMINAL LAYOUT



WIRING DIAGRAM



NUMBERING SYSTEM

KCL - A 4 A - XXX

Basic series designation _____

1. Mounting styles (A, D, J) _____

2. Terminal types (1, 2, 4,) _____

3. Coil voltage, see coil characteristics (A, B, C, M, N, R or V) _____

4. XXX Designators _____

NOTES

- Standard Intermediate current test applicable.
- For full rated load, max. temp. and altitude use no. 12 wire or larger. Relays to be mounted to limit mounting bracket temp. to 135° C.
- DC inductive load 10,000 cycles, AC inductive load 20,000 cycles.
- 500 Vrms with silicone gasket compressed, 350 Vrms all other conditions.
- Applicable military specification: MIL-PRF-6106 and MS27742.
- Special models available: Dry circuit, established reliability testing, etc.
- "N, R & V" coils have back EMF suppression to - 5 volts maximum.
- Relay will not be damaged by applying reverse voltage to the coil, although the relay may transfer.
- 60 Hz load life, 10,000 cycles.
- Time current relay characteristics per MIL-PRF-6106.

For any inquiries, please contact your local sales representative: leachcorp.com