



• All welded construction

• Contact arrangement 3 PDT configuration in one inch cube

• Qualified to MIL-PRF-83536

Applicable sockets:
SO-1057-8912

Application Notes:
101
102
103E
007

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. Detail specifications and ordering data appear on the following pages.	

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 [9]
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	40	80	80	N/A
Rupture	60	100	100	N/A
Circuit Breaker	-	-	-	
Compatible [10]				

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	29	14.5	7.3	50	29	14.5	7.3
Maximum pickup voltage							
- Cold coil at +125° C	18	9	4.5	36	18	9	4.5
- During high temp test at +125° C	19.8	9.9	5	38	19.8	9.9	5
- During continuous current test at +125° C	22.5	11.25	5.7	42	22.5	11.25	5.7
Maximum drop-out voltage	7	4.5	2.5	14	7	4.5	2.5
Coil resistance $\Omega \pm 10\%$ at +25° C except types "C" and "V" +20%, -10%	290	70	18	890	290	70	18

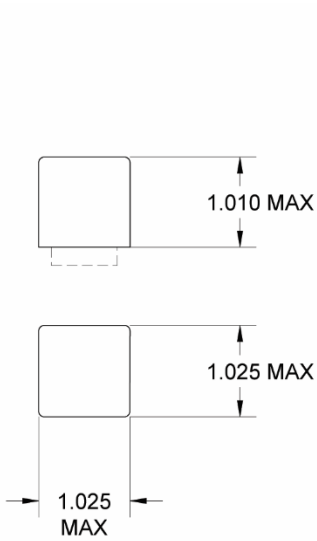
GENERAL CHARACTERISTICS

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	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 – G and J mounting	1E (0.2G ² /Hz, 50 to 2000 Hz)
- Duration	15 minutes each plane
Shock (A, D and W mounting)	200G / 6 \pm 1 ms
Shock (J mounting)	100G / 6 \pm 1 ms
Maximum contact opening time under vibration and shock	10 μ s
Operate time at nominal voltage @25°C	15 ms max
Release time at nominal voltage @25°C	15 ms max
Contact make bounce at nominal voltage @25°C	1 ms max
Contact release break bounce at nominal voltage @25°C	0.1 ms max [8]

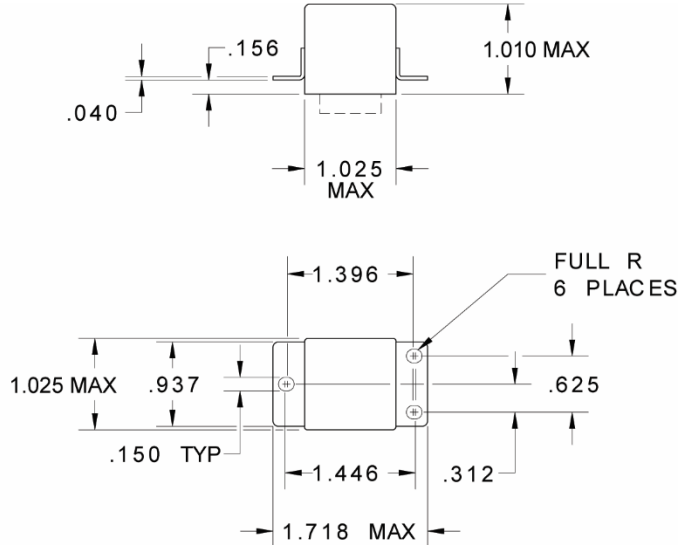
Unless otherwise noted, the specified temperature range applies to all relay characteristics.

Dimensions in inch
 Tolerances, unless otherwise specified
 XXX ± 0.010 in
 XX ± 0.03 in

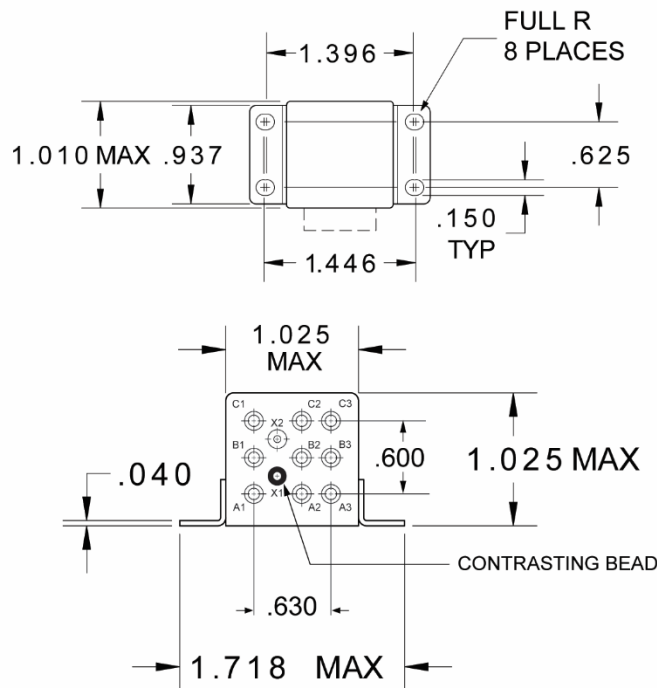
MOUNTING STYLES



MOUNTING STYLE A



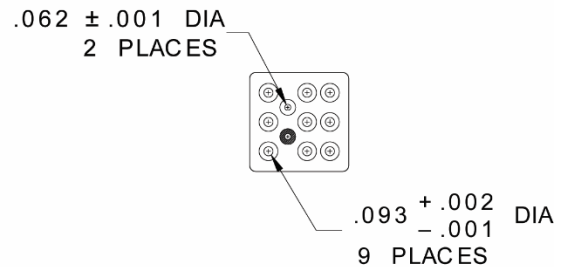
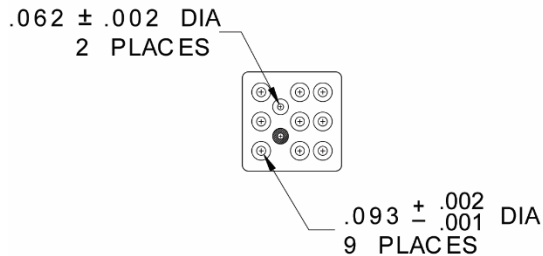
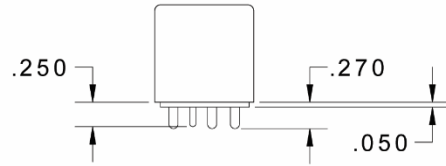
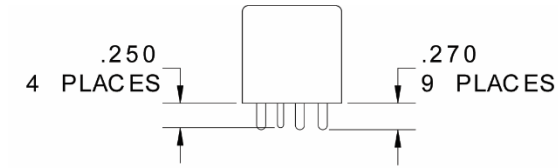
MOUNTING STYLE D



MOUNTING STYLE J

TERMINAL TYPES

Dimensions in inch
Tolerances, unless otherwise specified
XXX ± 0.010 in
XX ± 0.03 in



TERMINAL TYPE 1

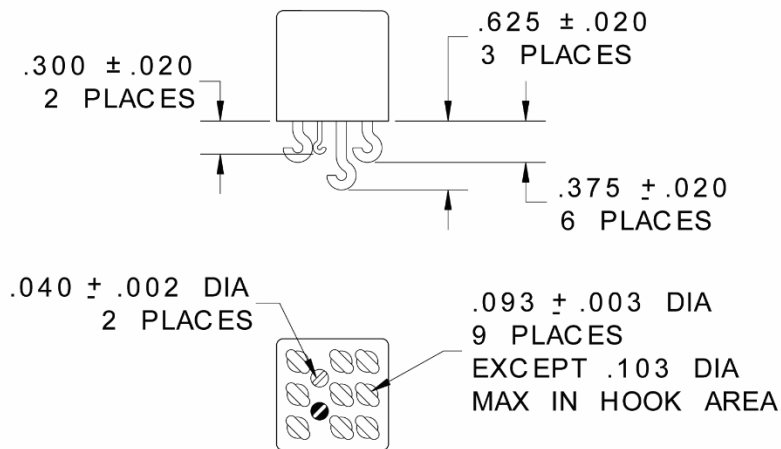
FINISH:
CASE: TIN/LEAD (All M83536 qualified relays)
BLUE PAINT UPON REQUEST

TERMINALS: TIN/LEAD PLATE

TERMINAL TYPE 4

FINISH:
CASE: TIN/LEAD (All M83536 qualified relays)
BLUE PAINT UPON REQUEST

TERMINALS: GOLD PLATE



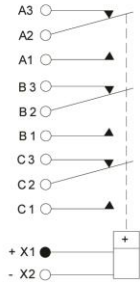
TERMINAL TYPE 2

FINISH:
CASE: TIN/LEAD (All M83536 qualified relays)
BLUE PAINT UPON REQUEST

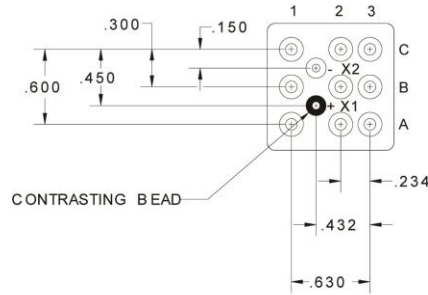
TERMINALS: TIN/LEAD PLATE

DIAGRAMS

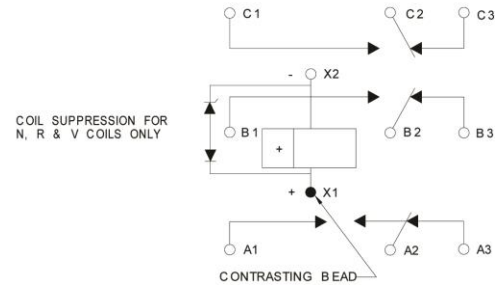
SCHEMATIC DIAGRAM



STANDARD TERMINAL LAYOUT



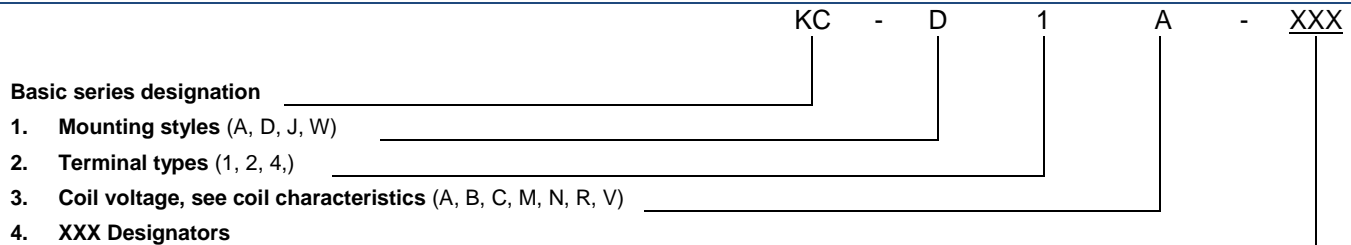
WIRING DIAGRAM



With EMF Suppression [7]

TOL: .XX ±.03; .XXX ±.010

NUMBERING SYSTEM



NOTES

- Standard Intermediate current test applicable
- For full rated load, max. temp. and altitude use no. 12 wire or larger.
Solder hook relays to be mounted to limit mounting bracket temp. to 160° 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-83536.
- Special models available: Dry circuit, high reliability testing, etc.
- "N, R & V" coils have back EMF suppression to - 42 volts maximum.
- Applies to "N, R & V" coils only
- 60 Hz load life, 10,000 cycles.
- Time current relay characteristics per MIL-PRF-83536
- Relay will not operate, but will not be damaged by application of reverse polarity to coil.

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