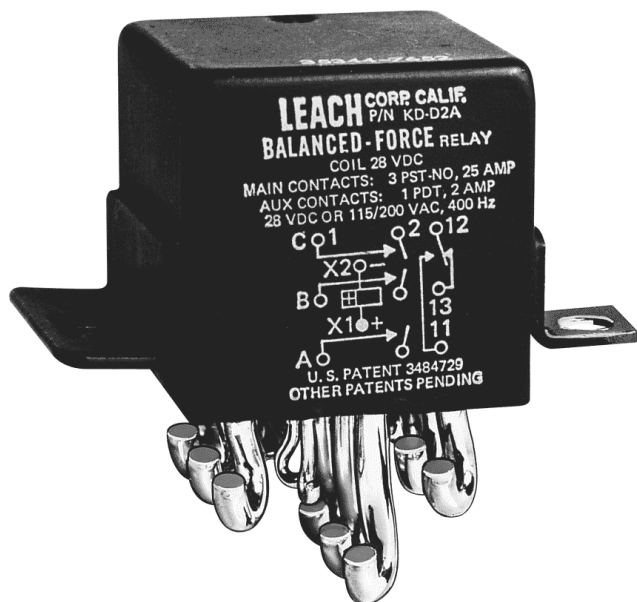


ENGINEERING DATA SHEET

SERIES KD

RELAY - NONLATCH
3 PST/NO +AUX, 25 AMP



APPLICATION NOTES:

- [101](#)
- [002](#)
- [103E](#)
- [007](#)

APPLICABLE SOCKET:

[SO-1059-8914](#)

All welded construction

Contact arrangement **3 PST configuration with 1 PDT, 2 Amp auxiliary contacts in one inch cube**

Qualified to **MIL-PRF-6106**

PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at **28 Vdc and 115/200 Vac, 400 Hz, 3Ø**

Weight **0.188lb 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 [10]	
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	
Contact rating of auxiliary contacts at 28 Vdc or 115 Vac, 400 Hz			Resistive 2 Amp	Inductive 1 Amp	Lamp 0.5 Amp



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No.8 Science Park West Avenue
Phase Two, Hong Kong Science Park
Pak Shek Kok, Tai Po, N.T.
Hong Kong

Tel: (852) 2 191 3830
Fax: (852) 2 389 5803

Data sheets are for initial product selection and comparison. Contact Esterline Power Systems prior to choosing a component.

COIL CHARACTERISTICS (Vdc)**SERIES KD**

CODE	A	B	C	M	N [8]	R [8]	V [8]
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" & "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 and coil auxiliary contact gap	1000 Vrms [4]
Dielectric strength at altitude 80,000 ft	500 Vrms [5]
Insulation resistance	
- Initial (500 Vdc)	100 M Ω min
- After environmental tests (500 Vdc)	50 M Ω min
Sinusoidal vibration (A and D mounting)	0.12DA / 10 to 70 Hz 30G / 70 to 3000 Hz
Sinusoidal vibration (J mounting)	0.12DA / 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, D and W mounting)	200G / 6 ms
Shock (J mounting)	100G / 6 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	
- Power contacts@25°C	1 ms max
- Auxiliary contacts@25°C	4 ms max
Contact release break bounce at nominal voltage@25°C - Power contacts	0.1 ms max [9]
Weight maximum	0.188lb

NOTES

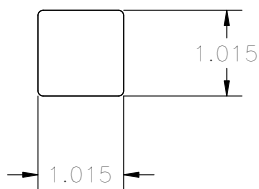
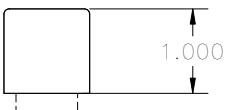
SERIES KD

- [1] Standard Intermediate current test applicable.
- [2] 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.
- [3] DC inductive load 10,000 cycles, AC inductive load 20,000 cycles.
- [4] Dielectric of auxiliary contact gap after life tests: 750 Vrms, 60 Hz.
- [5] 500 Vrms with silicone gasket compressed, 350 Vrms all other conditions.
- 6. Applicable military specification: MIL-PRF-6106 and M6106/13.
- 7. Special models available: Dry circuit, high reliability testing, etc.
- [8] "N, R & V" coils have back EMF suppression to 42 volts maximum.
- [9] Applies to "N, R & V" coils and main contacts only.
- [10] 60 Hz load life, 10,000 cycles.
- 11. Time current relay characteristics per MIL-PRF-6106.
- 12. Relay will not operate, but will not be damaged by application of reverse polarity to coil.

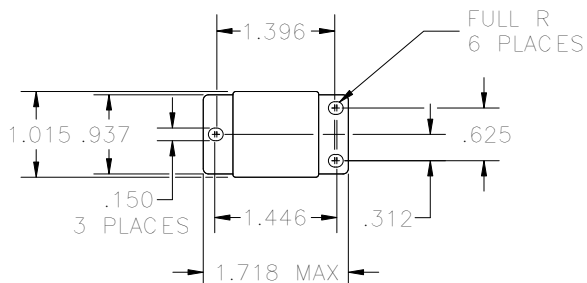
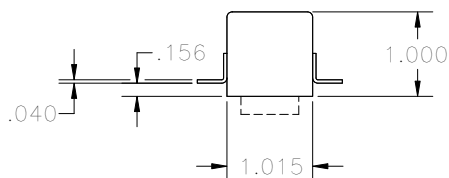
NUMBERING SYSTEM

	KD	-	A	4	A
Basic series designation _____					
1-Mounting Style (A,D,J,W) _____					
2-Terminal Types (1,2,4) _____					
3-Coil Voltage see coil characteristics (A,B,C,M,N,R or V) _____					

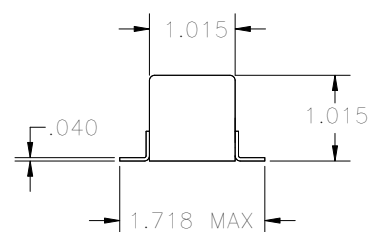
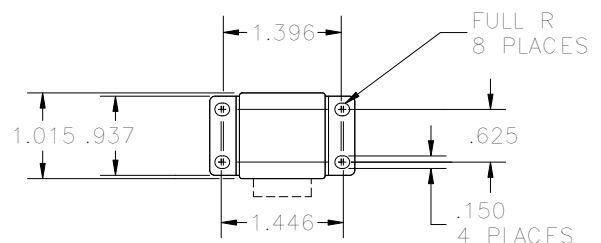
MOUNTING STYLES



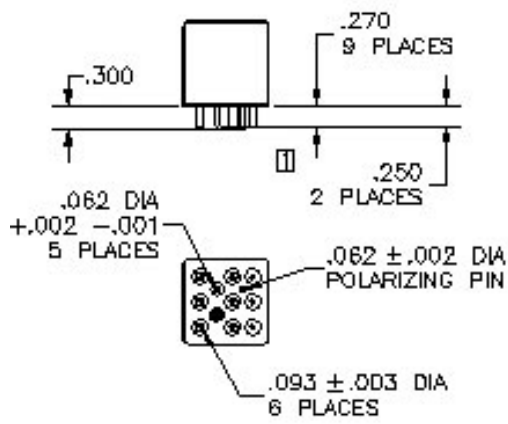
MOUNTING STYLE A



MOUNTING STYLE D

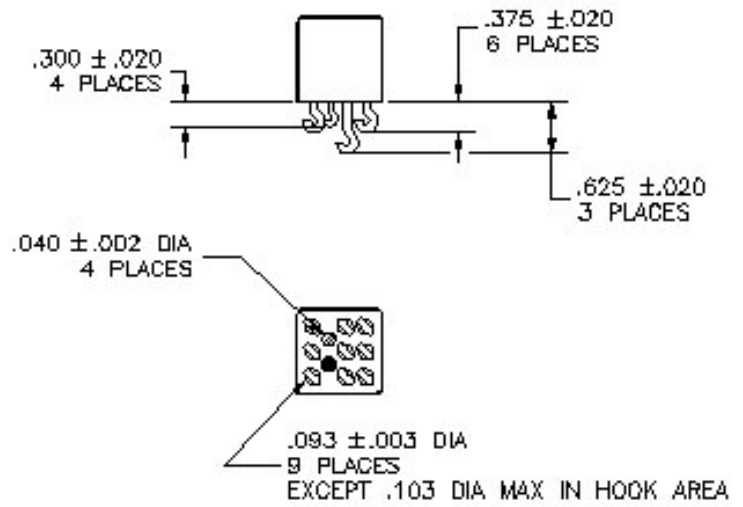


MOUNTING STYLE J



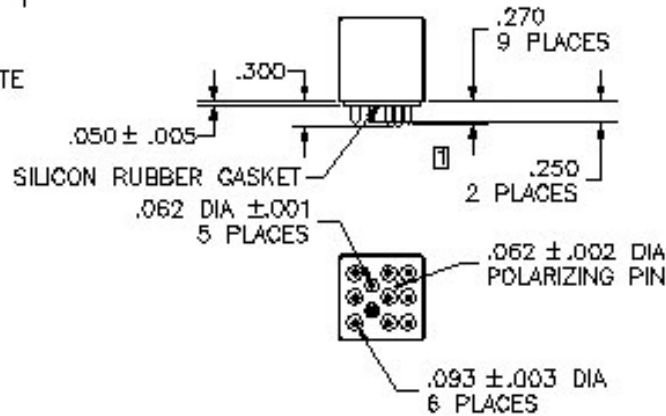
TERMINAL TYPE 1

FINISH:
BODY: LEACH BLUE
TERMINALS: TIN/LEAD PLATE



TERMINAL TYPE 2

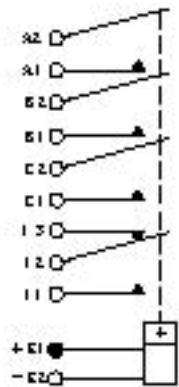
FINISH:
BODY: LEACH BLUE
TERMINALS: TIN/LEAD PLATE



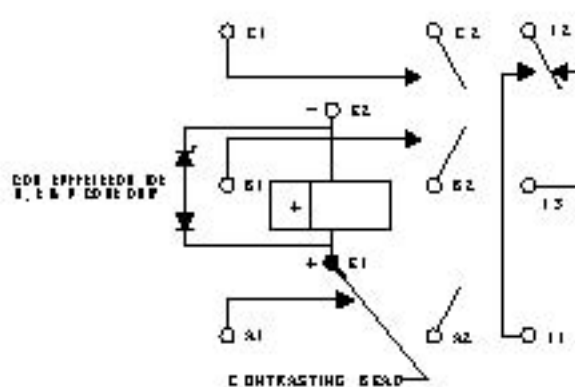
TERMINAL TYPE 4

FINISH:
BODY: LEACH BLUE
TERMINALS: GOLD PLATE
POLARIZING PIN: TIN/LEAD PLATE

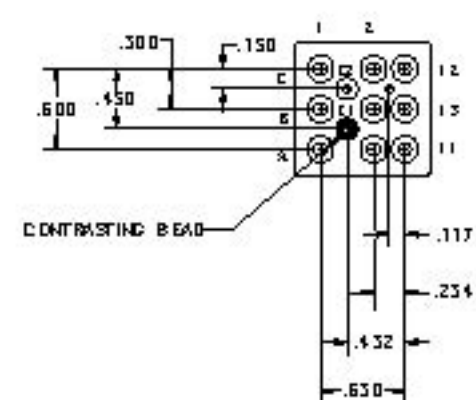
SCHEMATIC DIAGRAM



WIRING DIAGRAM



STANDARD TERMINAL LAYOUT



STANDARD TOLERANCE: .XX ±.03; .XXX ±.010