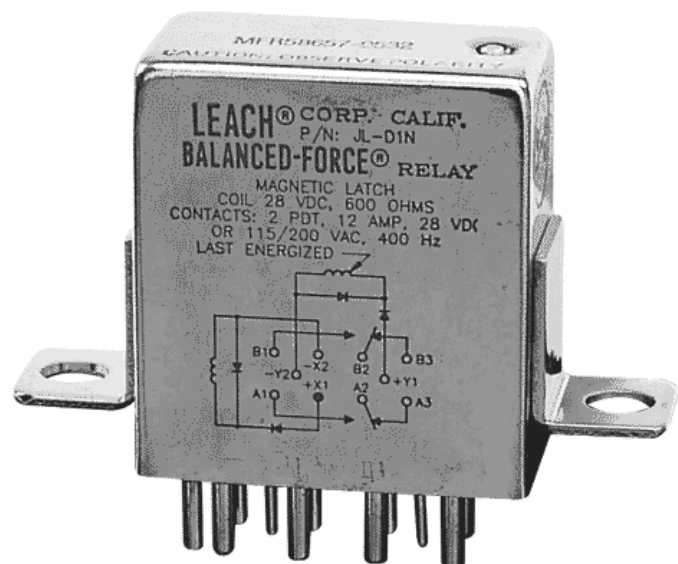


ENGINEERING DATA SHEET

SERIES JL

RELAY - LATCH
2 PDT, 12 AMP



APPLICATION NOTES:

- [101](#)
- [102](#)
- [103D](#)
- [007](#)
- [023](#)

APPLICABLE SOCKET:

[SO-1055-8690/10147](#)

Magnetic latch operation
All welded construction
Contact arrangement **2 PDT**
Designed to the performance standards of **MIL-PRF-83536**

PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at **28 Vdc; 115 Vac, 400 Hz, 1Ø and 115/200 Vac, 400 Hz 3Ø**
Weight **0.088lb max**
Dimensions **1.01in x .51in x 1.00in**

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 [6]
Resistive	12	12	12	2.5
Inductive [5]	8	8	8	2.5
Motor	4	4	4	2
Lamp	2	2	2	1
Overload	40	60	60	N/A
Rupture	50	80	80	N/A



Featuring **LEACH**® power and control solutions
www.esterline.com

AMERICAS
6900 Orangethorpe Ave.
P.O. Box 5032
Buena Park, CA 90622

Tel: (01) 714-736-7599
Fax: (01) 714-670-1145

EUROPE
2 Rue Goethe
57430 Sarralbe
France

Tel: (33) 3 87 97 31 01
Fax: (33) 3 87 97 96 86

ASIA
Units 602-603 6/F Lakeside 1
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 JL**

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
Coil resistance $\Omega \pm 10\%$ +25° C except types "C" & "V" +20%, -10%	600	150	38	1600	600	150	38

GENERAL CHARACTERISTICS

Temperature range	-70°C to +125°C
Minimum operating cycles (life) at rated load	100,000
Minimum operating cycles (life) at 25% rated load	400,000
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 [2]
Insulation resistance	
- Initial (500 Vdc)	100 M Ω min
- After environmental tests (500 Vdc)	50 M Ω min
Sinusoidal vibration (A, D and J mounting)	0.12DA / 10 to 70 Hz 30G / 70 to 3000 Hz
Sinusoidal vibration (G mounting)	0.12DA / 10 to 57 Hz 20G / 57 to 3000 Hz
Random vibration	
- Applicable specification	MIL-STD-202
- Method	214
- Test condition - A, D and J mounting	1G (0.4G ² /Hz, 50 to 2000 Hz)
- Test condition - G mounting	1E (0.2G ² /Hz, 50 to 2000 Hz)
- Duration	15 minutes each plane
Shock (A, D and J mounting)	200G / 6 ms
Shock (G mounting)	100G / 6 ms
Maximum contact opening time under vibration and shock@25°C	10 μ s
Operate time at nominal voltage (either coil)@25°C	10 ms max
Contact make bounce at nominal voltage@25°C	1 ms max
Weight maximum	0.088lb

- [1] Standard Intermediate current test applicable.
- [2] 500 Vrms with silicone gasket compressed, 350 Vrms all other conditions, except between "Y" coil pins and ground to be 250 Vrms 60 Hz.
- 3. Applicable military specification: MIL-PRF-83536.
- 4. Special models available: i.e. dry circuit capabilities, high reliability testing, etc. Please contact factory.
- [5] Inductive load life, 20,000 cycles.
- [6] 60 Hz load life, 10,000 cycles.
- [7] "N" R & V coils have back EMF suppression to - 5 volts maximum.
- 8. Relay will not be damaged by applying reverse voltage to the coil, although the relay may transfer.
- 9. Time current relay characteristics per MIL-PRF-83536.

NUMBERING SYSTEM

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

MOUNTING STYLES

MOUNTING STYLE A
 □ DIMENSION IS 1.125 ON SUPPRESSED UNITS

MOUNTING STYLE D
 □ DIMENSION IS 1.125 ON SUPPRESSED UNITS

MOUNTING STYLE G
 □ DIMENSION IS 1.125 ON SUPPRESSED UNITS

MOUNTING STYLE J
 □ DIMENSION IS 1.125 ON SUPPRESSED UNITS

MOUNTING STYLE W
 NOTE:
 FOR USE WITH
 TRACK MOUNT SYSTEM

