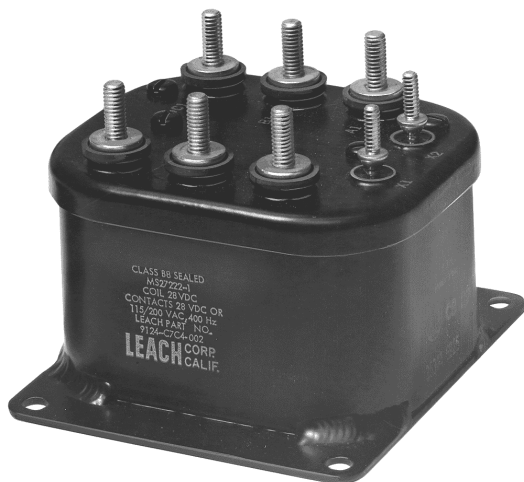


# ENGINEERING DATA SHEET

# SERIES 9124

CONTACTOR  
3 PST, 50 AMP



Balanced armature design  
Hermetically sealed  
Contact arrangement **3 PST**  
Designed to the performance standards of **MIL-PRF-6106**

## PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at **28 Vdc; 115 Vac, 400 Hz, 1 Ø**  
**115/200 Vac, 400 Hz, 3 Ø**  
Weight **1.25 lb max**  
Dimensions **3.31in x 3.73in x 2.44in**  
Special units available upon request, including models with auxiliary contacts.

### APPLICATION NOTES:

- [101](#)
- [102](#)
- [103F](#)
- [007](#)

## 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 Vac 60 Hz [5]	440 Vac 60 Hz [5] DELTA
Resistive	50	50	50	30	15
Inductive [6]	50	50	50	30	15
Motor	50	50	50	15	12
Intermediate current	5	5	5	15	-



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 9124**

CODE	Vdc	115 Vac 60/400 Hz	Suppressed Vdc [2]
Nominal operating voltage	28	115	28
Maximum operating voltage	29	124	29
Pick-up voltage, max			
- Nominal	18	90	18
- High temp test	21	100	21
- Continuous current test	22.5	104	22.5
Drop-out voltage, max	7	40	7
Coil resistance Ohms $\pm 10\%$ at +25° C	50	-	50
Coil current max. mA at +25° C	-	200	-

**GENERAL CHARACTERISTICS**

Temperature range	-70°C to +125°C
Minimum operating cycles (life) at rated load	50,000
Minimum operating cycles (life) at 25% rated load	100,000
Dielectric strength at sea level	
- Coil to case	DC 1250 Vrms AC 1500 Vrms
- Auxiliary contacts	DC 1250 Vrms AC 1500 Vrms
- All other points	DC 1250 Vrms AC 1800 Vrms
Dielectric strength at altitude 80,000 ft	700 Vrms
Insulation resistance (at 500 Vdc) minimum	100 M $\Omega$ min
Sinusoidal vibration (55-1500 Hz)	15 G
Shock (6-9 ms duration)	50 G
Maximum contact opening time under shock or vibration	2 ms
Operate time at nominal voltage	
- DC	25 ms max
- AC	30 ms max
Release time at nominal voltage	
- DC	10 ms max
- AC	50 ms max
Contact bounce at nominal voltage	2 ms max [1]
Weight maximum	1.25 lb max.

**RELAY NUMBERING SYSTEM**

**SERIES 9124**

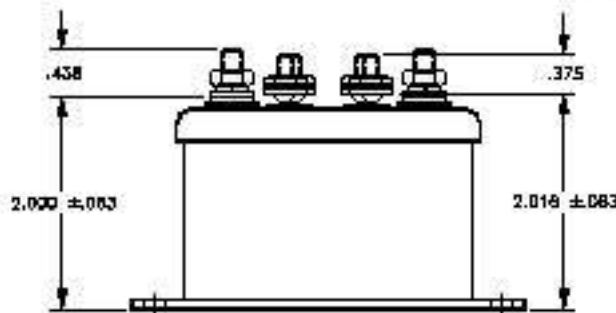
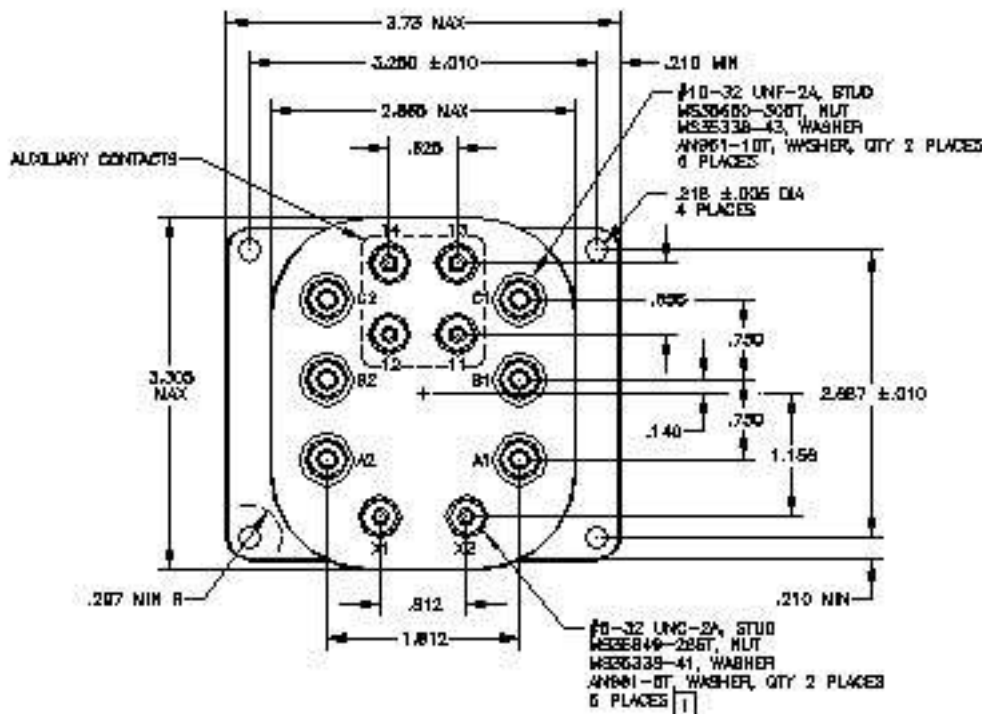
LEACH PART NO.	DESCRIPTION	MS NUMBER	MOUNTING STYLE [4]	SCHEMATIC DIAGRAM [4]
9124-C7C4-002	3 PST, 50 AMP, DC COIL	MS27222-1	1	1
9124-C7D3-002	3 PST, 50 AMP, AC COIL 60/400 Hz	MS27222-3	1	1
9124-1Z-C7C4-002	3 PST, 50 AMP, DC COIL, AUX CONTACT	MS27222-2	1	2
9124-1Z-C7D3-002	3 PST, 50 AMP, AC COIL, AUX CONTACT 60/400 Hz	MS27222-4	1	2
9124-10278	3 PST, 50 AMP, AC COIL 60/400 Hz	MS27222-5	1	1
9124-10279	3 PST, 50 AMP, AC COIL, AUX CONTACT, 60/400 Hz	MS27222-6	1	2
9124-10280	3 PST, 50 AMP, DC COIL WITH SUPPRESSION, AUX CONTACT	MS27222-7	1	4
9124-8073	3 PST, 50 AMP, DC COIL	MS24376-D1 [3]	2	1
9124-8074	3 PST, 50 AMP, AC COIL, 60/400 Hz	MS24376-A1 [3]	2	1
9124-8075	3 PST, 50 AMP, DC COIL, AUX CONTACT	MS24376-D2 [3]	2	2
9124-8076	3 PST, 50 AMP, AC COIL, AUX CONTACT 60/400 Hz	MS24376-A2 [3]	2	2
9124-10398	3 PST-NO, 50 AMP, DC SUPPRESSED COIL	-	1	3
9124-10399	3 PST-NO, 50 AMP, DC SUPPRESSED COIL, AUX CONTACTS	-	1	4
9124-10400	3 PST-NO, 50 AMP, DC SUPPRESSED COIL	-	2	3
9124-10401	3 PST-NO, 50 AMP, DC SUPPRESSED COIL, AUX CONTACTS	-	2	4

Special Models available upon request, please contact factory.

**NOTES**

- [1] Auxiliary contact rating:  
 Resistive and inductive: (28 Vdc or 115 Vac) 5 Amp  
  
 Lamp: (28 Vdc or 115 Vac) 1 Amp  
  
 Bounce at nominal voltage maximum: .004 sec max
- [2] Suppressed coils have back EMF suppression to 42 Vdc.
- [3] MS numbers are for reference only. Relays are electrically and mechanically interchangeable, except the height is less on the Leach relays similar to MS24376.
- [4] See the following pages for mounting styles and schematic diagram.
- [5] Ratings are beyond MS requirements.
- [6] Inductive load life is 20 percent of rated resistive load life.

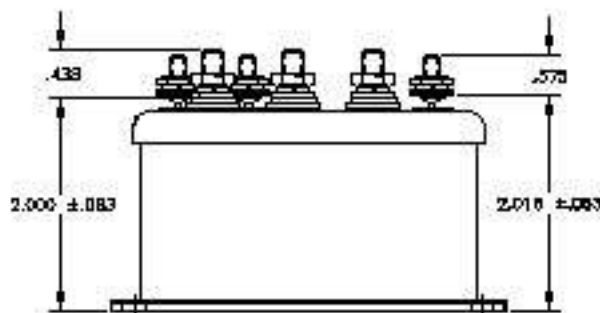
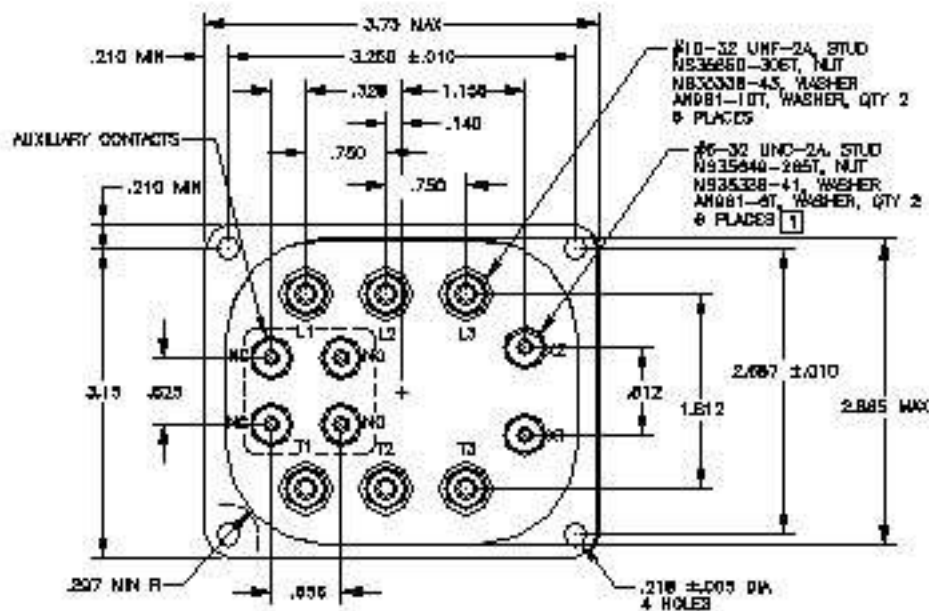
MOUNTING STYLE 1



MODEL NUMBER	WEIGHT
9124-0704-002	1.15 LB
9124-0703-002	1.25 LB
9124-10278	1.25 LB
9124-10368	1.18 LB
AUXILIARY CONTACT MODELS	
9124-12-C7C4-002	1.15 LB
9124-12-C7C5-002	1.18 LB
9124-10278	1.25 LB
9124-10280	1.25 LB
9124-10368	1.25 LB

1 2 PLACES, FOR NON-AUXILIARY MODELS

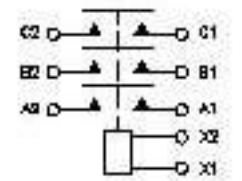
MOUNTING STYLE 2



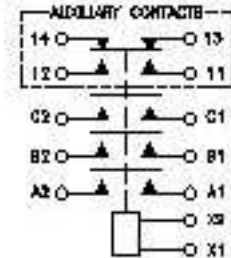
MODEL NUMBER	WEIGHT
9124-8073	1.09 LB
9124-8074	1.12 LB
9124-10400	1.18 LB
AUXILIARY CONTACT MODELS	
9124-8073	1.17 LB
9124-8076	1.18 LB
9124-10401	1.25 LB

1 2 PLACES, FOR NON-AUXILIARY MODELS

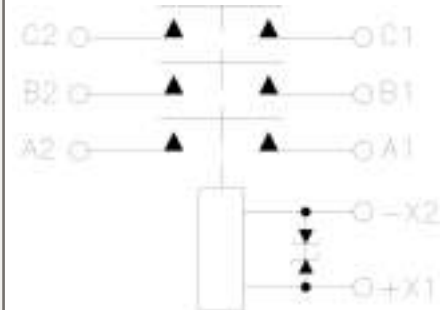
SCHEMATIC DIAGRAM NO 1



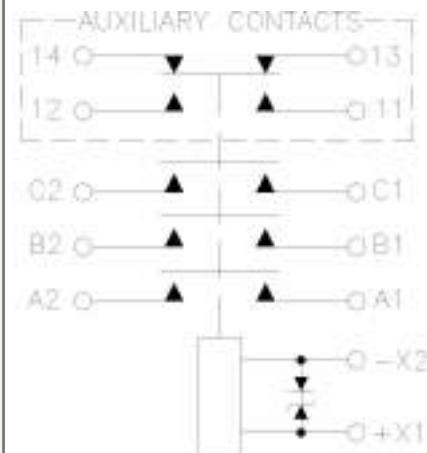
SCHEMATIC DIAGRAM NO 2



SCHEMATIC DIAGRAM NO 3

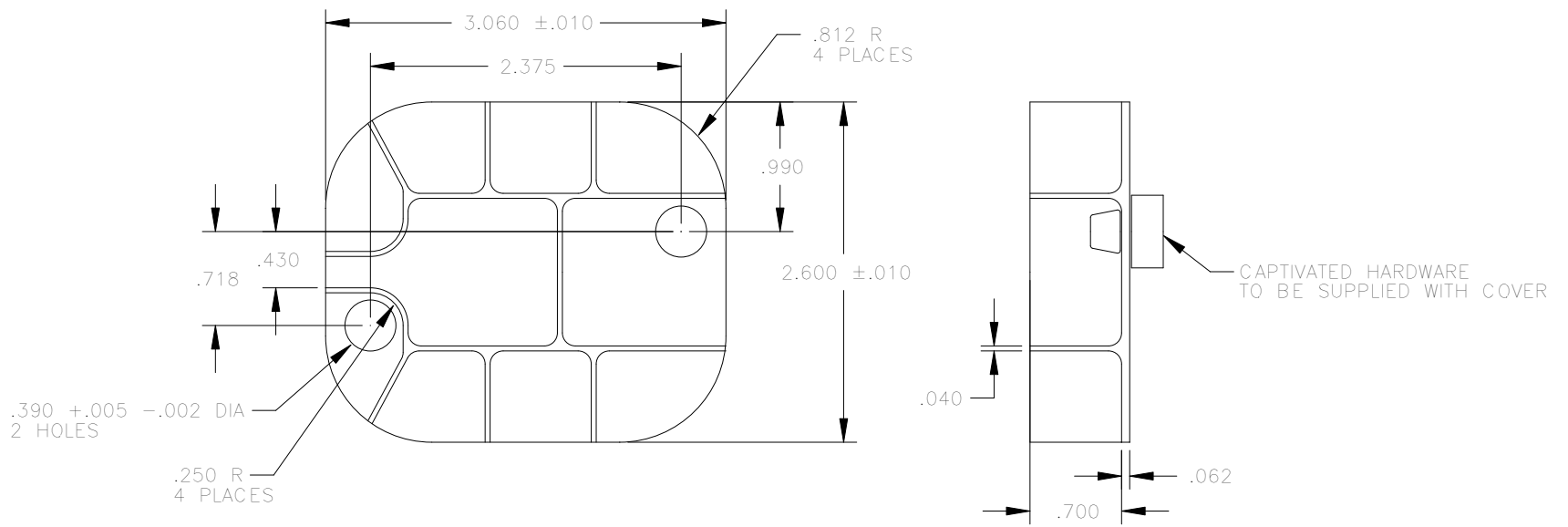


SCHEMATIC DIAGRAM NO 4



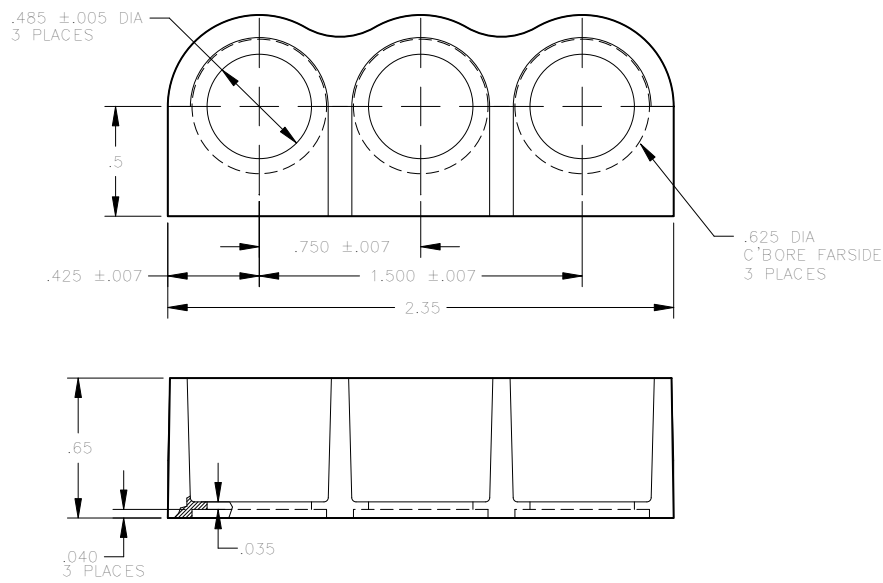
STANDARD. TOLERANCE: .XXX ± .031

PART NUMBER: 001-8708-000



1. MATERIAL: 30% GLASS FILLED NYLON  
COLOR, BLACK. MEETS OR EXCEEDS  
FED SPEC NO. LP-395.

PART NUMBER: 001-1908-000



1. MATERIALS: DIALL FS-80 (BLACK)
2. TWO EACH REQUIRED