



APPLICATION NOTES:
101
102
007

Balanced-Force Design

Hermetically sealed

Designed to the performance standards of

MIL-PRF-6106

PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at 28 Vdc and 115 Vac, 400 Hz, 1 Ø
and 115/200 Vac, 400Hz, 3 Ø

Weight 4.50 lb max

Special units available upon request, including models with auxiliary contacts.

CONTACT ELECTRICAL CHARACTERISTICS

Contact rating per pole and load type	Load current in Amps		
	28 Vdc	115 Vac 400 Hz	115/200 Vac 400 Hz 3Ø
Resistive	100	250	250
Inductive [1]	75	250	250
Motor	75	125	125

COIL CHARACTERISTICS (Vdc)

CODE	A Vdc	F Vac 400Hz	N Suppressed [5] Vdc
Nominal operating voltage	28	115	28
Maximum operating voltage	29	124	29
Pick-up voltage, maximum			
- Nominal	18	90	18
- High temp test	20	95	20
- Continuous current test	22.5	100	22.5
Drop-out voltage, maximum	7	30	7
Coil resistance in Ohms \pm 20% at +25° C [4]	100	-	100
Coil current max. @ nom. Volt. and +25° C	-	.10 Amp	-

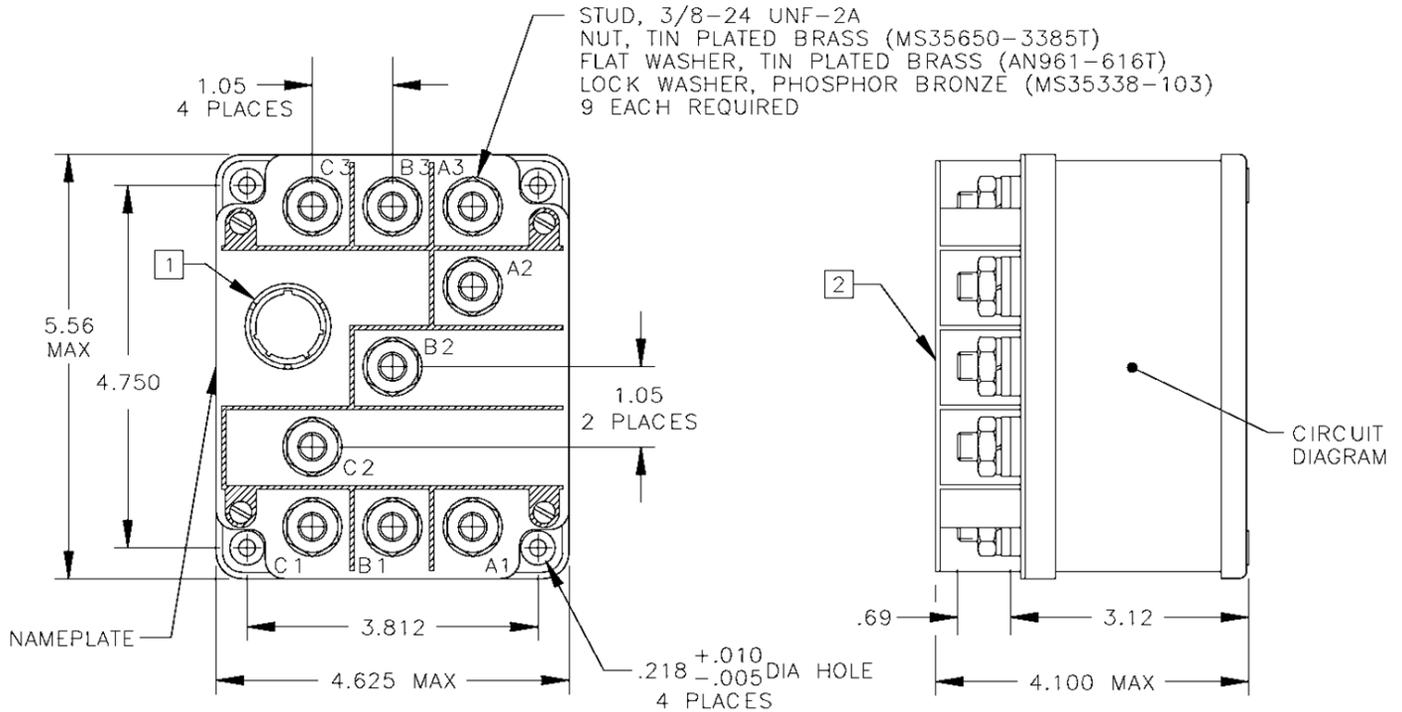
GENERAL CHARACTERISTICS

Temperature range	-55°C to 85°C
Minimum operating cycles (life) at rated load	50,000
Minimum operating cycles (life) at 25% rated resistive load	100,000
Dielectric strength at sea level	
All circuits to ground and circuit to circuit	1,500 Vrms
Coil to ground and aux. contacts	1,250 Vrms
Dielectric strength at altitude:	
Main contacts	700 Vrms
Coil and aux. contacts	500 Vrms
Insulation resistance	
Initial (500 Vdc)	100 M Ω min
After environmental tests (500 Vdc)	50 M Ω min
Sinusoidal vibration	10G / 60 to 2,000 Hz
Shock (6 ms duration)	20G
Maximum contact opening time under vibration and shock	10 μ s
Operate time at nominal voltage (Including bounce)	60 ms max
Release time at nominal voltage (Including bounce)	
DC	40 ms max [3]
AC	80 ms max
Contact bounce at nominal voltage	4 ms max
Weight	4.50 lb max
Overload	1,250 Amperes
Rupture	1,750 Amperes
Altitude	80,000 ft.

Dimensions in inches
Tolerances, unless otherwise specified
XX ± 0.03 in
XXX ± .010 in

CONFIGURATION STYLES

MOUNTING STYLE A



[1] CIRCULAR CONNECTOR MS-STYLE OR EQUIVALENT

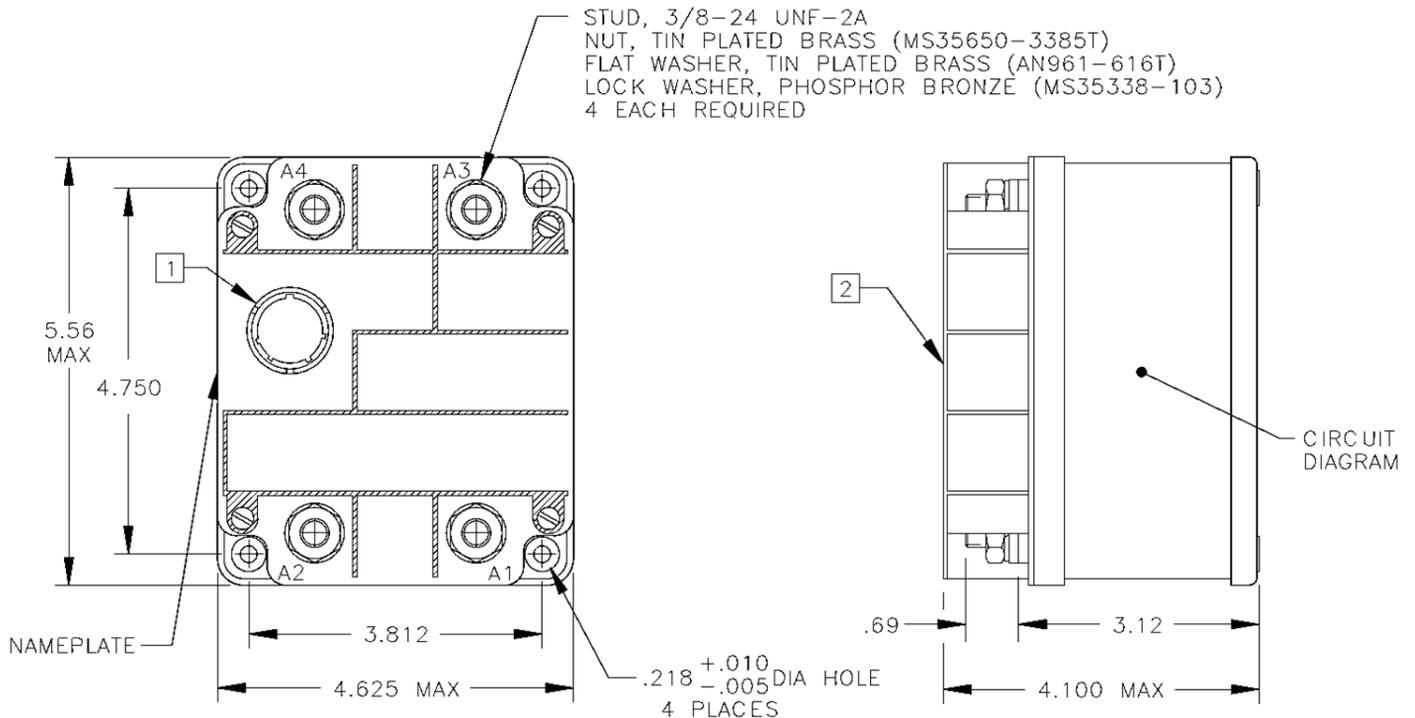
[2] TERMINAL BARRIER (SHOWN WITHOUT COVER IN TOP VIEW, FOR CLARITY).

[3] COIL TERMINALS MAY BE IDENTIFIED AS A-B OR X-Y.

Dimensions in inches
Tolerances, unless otherwise specified
XX ± 0.03 in
XXX ± .010 in

CONFIGURATION STYLES

MOUNTING STYLE C



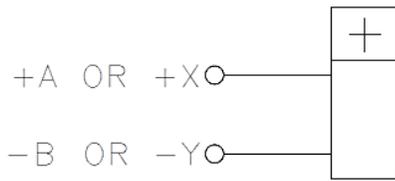
[1] CIRCULAR CONNECTOR MS-STYLE OR EQUIVALENT

[2] TERMINAL BARRIER (SHOWN WITHOUT COVER IN TOP VIEW, FOR CLARITY).

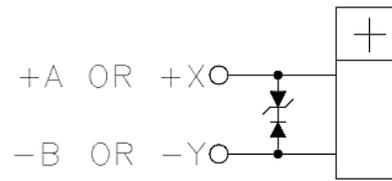
[3] COIL TERMINALS MAY BE IDENTIFIED AS A-B OR X-Y.

CIRCUIT DIAGRAMS

COIL CIRCUIT CONFIGURATION 3



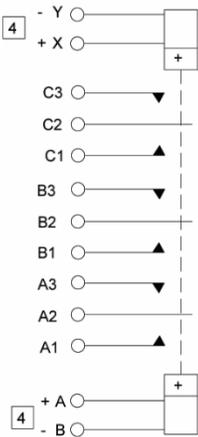
STANDARD
"A & F" COIL



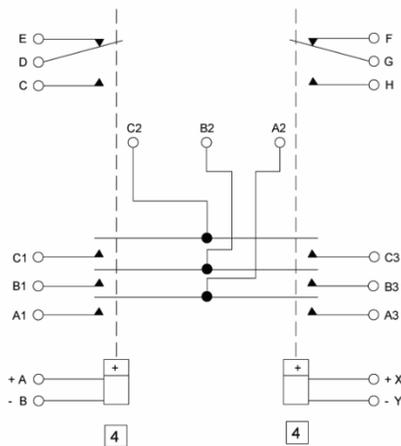
STANDARD
WITH
COIL SUPPRESSION
"N" COIL

TERMINAL CONFIGURATION AND CIRCUIT DIAGRAMS

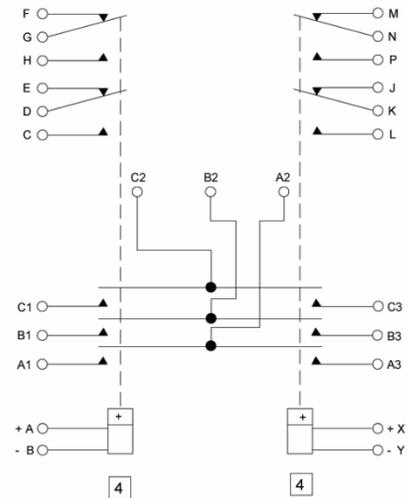
TERMINAL TYPE 1
3 PDT



TERMINAL TYPE 2
3 PDT WITH 2 PDT
AUXILIARY CONTACTS 5

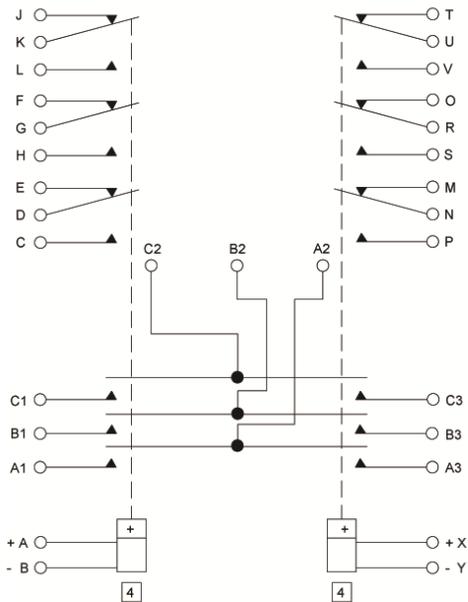


TERMINAL TYPE 3
3 PDT WITH 4 PDT
AUXILIARY CONTACTS 5

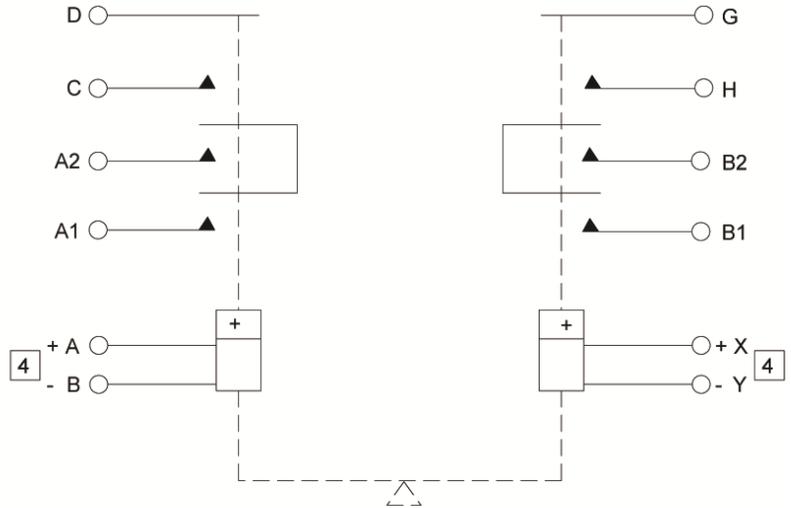


TERMINAL CONFIGURATION AND CIRCUIT DIAGRAMS (Continued)

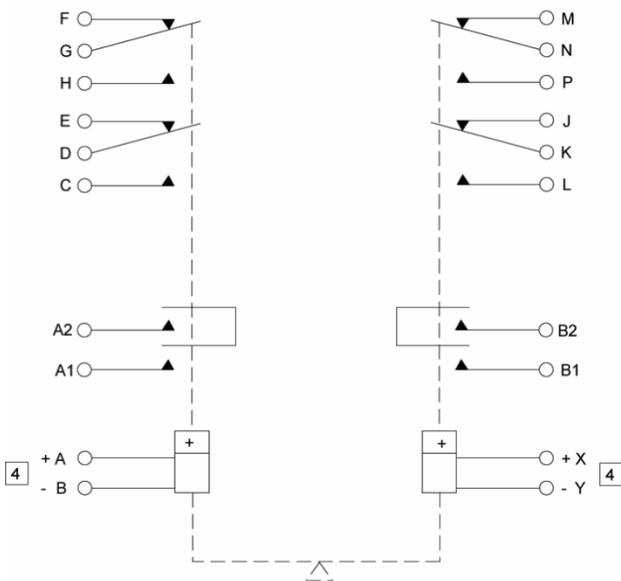
TERMINAL TYPE 4
3 PDT WITH 6 PDT
AUXILIARY CONTACTS [5]



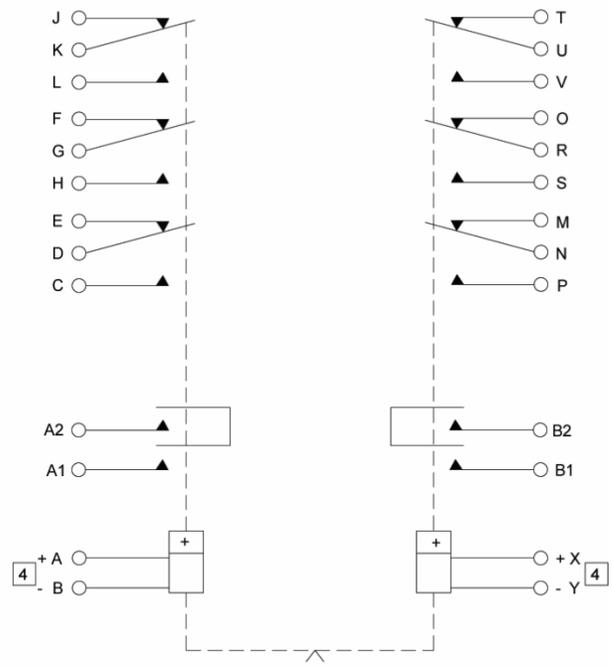
TERMINAL TYPE 5
SPDT DOUBLE MAKE WITH 2 PST-N.O.
AUXILIARY CONTACTS [5]



TERMINAL TYPE 6
SPDT DOUBLE MAKE WITH
4 PDT AUXILIARY CONTACTS [5]



TERMINAL TYPE 7
SPDT DOUBLE MAKE WITH
4 PDT AUXILIARY CONTACTS [5]



TERMINAL CONFIGURATION AND CIRCUIT DIAGRAMS (Continued)

TERMINAL TYPE 9

IS A GENERAL CATEGORY USED FOR ALL TERMINAL TYPES NOT ILLUSTRATED. FOR OTHER VARIATIONS OF TERMINAL CONFIGURATIONS PLEASE CONTACT FACTORY.

[4] POLARITY INDICATION APPLIES TO D.C. COILS ONLY

[5] AUXILIARY CONTACT RATING: 28 VDC OR 115 VAC

RESISTIVE: **8 AMP**

INDUCTIVE: **5 AMP**

LAMP: **3 AMP**

BOUNCE AT NOMINAL VOLTAGE: **.004 SEC MAX**

OTHER AUXILIARY CONTACT FORMS AVAILABLE, INCLUDING LOW LEVEL CAPACITY

NUMBERING SYSTEM



NOTES

1. Inductive load life: 20,000 cycles.
2. Alternate contact configurations and other special models available upon request. Please contact factory.
3. Greater values for suppressed coils.
4. Terminal strength per para. 3.4.8.2.1 of MIL-R-6106.
5. Suppressed "N" coil has back EMF suppression to 62 volts max.
6. This series drawing is for general use only. Please consult factory for special requirements.

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