



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, 1Ø
and 115/200 Vac 400 Hz, 3Ø

Weight See Mounting

Auxiliary contact models available.
Special units available upon request.

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	28 Vdc [2]	DELTA 115/200 Vac 60 Hz
Resistive	50	100	100	120	60
Inductive [1]	30	100	100	80	60
Motor	30	60	60	80	40
Load transfer, resistive [7]	-	-	50	-	-

COIL CHARACTERISTICS (Vdc)

CODE	A	B	C	F Vac 400 Hz	N Suppressed [6]	Y [6]	YN [6]
Nominal operating voltage	28	12	6	115	28	28	28
Maximum operating voltage	29	14.5	7.2	124	29	29	29
Pick-up voltage, maximum							
- Nominal	18	9	4.5	90	18	18	18
- High temp test	20	10	5	95	20	20	20
- Continuous current test	22.5	11	5.7	100	22.5	22.5	22.5
Drop-out voltage, maximum	7	4.5	2.5	30	7	7	7
Coil resistance in Ohms \pm 20% at +25 °C	150	38	9.3	-	150	[8]	[8]
Coil current Amp max. @ Nom. Volt. and +25 °C	-	-	-	0.09	-	-	-

GENERAL CHARACTERISTICS

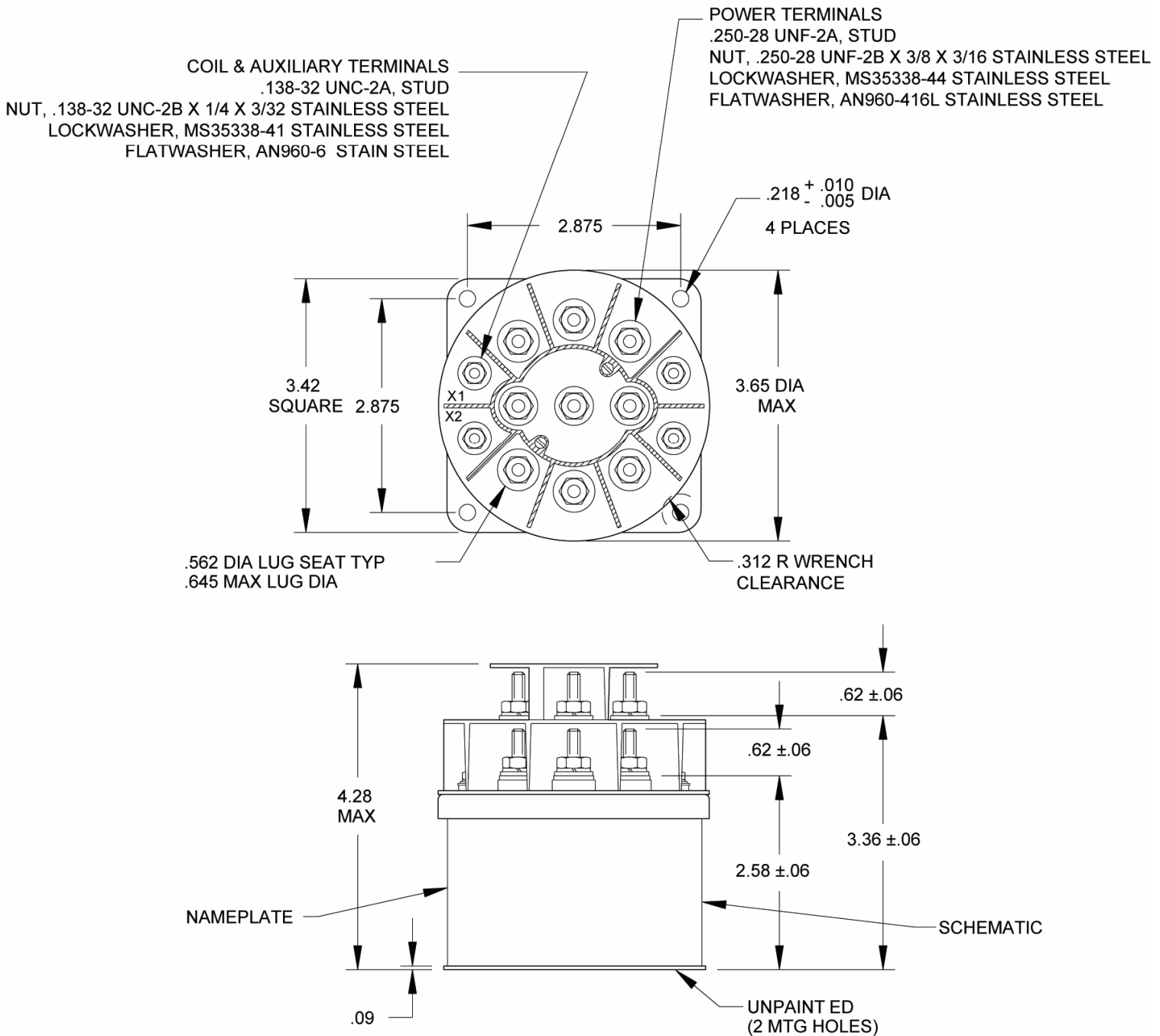
Temperature range	-55°C to +71°C
Minimum operating cycles (life) at rated load	50,000
Minimum operating cycles (life) at 25% rated load	100,000
Dielectric strength at sea level	
All circuits to ground and circuit to circuit	1,500 Vrms
Coil to ground and Aux. contacts	1,250 Vrms
Dielectric strength at altitude	700 Vrms (Main contacts) 500 Vrms (Coil and auxiliary contacts)
Insulation resistance	
Initial (500 Vdc)	100 M Ω min
After environmental tests (500 Vdc)	50 M Ω min
Sinusoidal vibration (70 to 500 Hz)	5 G
Shock (6 ms duration)	15 G
Maximum contact opening time under vibration and shock	10 μ s
Operate time at nominal voltage (Including bounce)	60 ms max 25 ms max (Economizer coil)
Release time at nominal voltage (Including bounce)	
DC	40 ms max
AC	80 ms mas
Release time at nominal voltage (Including bounce) : Economizer coil	
DC	25 ms max
AC	35 ms max
Contact bounce at nominal voltage	4 ms max
Overload	600 Amps @ 115/200 Vac, 400 Hz
Rupture	800 Amps @ 115/200 Vac, 400 Hz
Altitude	50,000 ft.

Dimensions in inches
Tolerances, unless otherwise specified, XX ±.03; .XXX ±.010

CONFIGURATION STYLES

MOUNTING STYLE A

WEIGHT: 2 LB MAXIMUM
WEIGHT IS DEPENDENT UPON CONFIGURATION REQUIRED.
PLEASE CONSULT FACTORY.

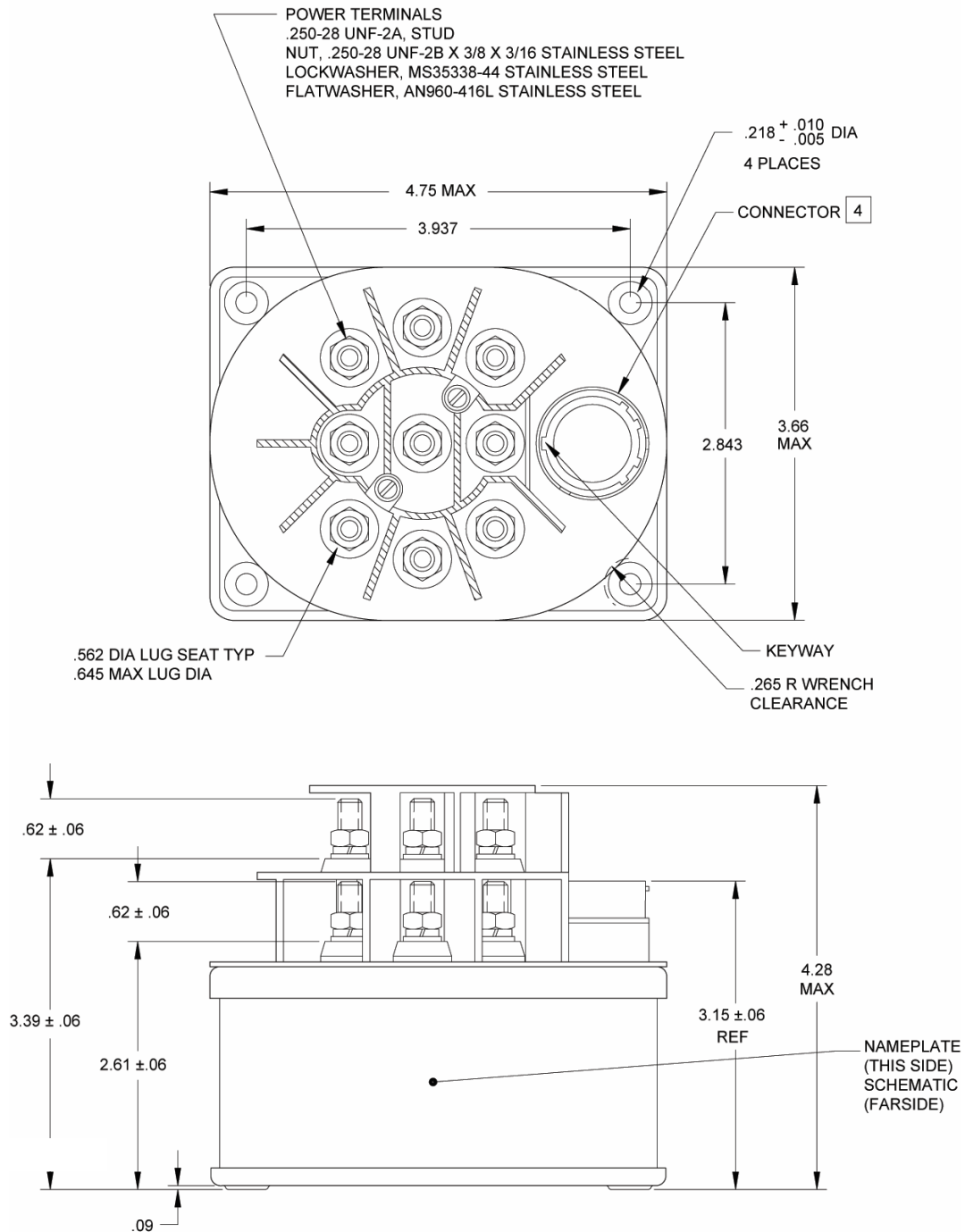


Dimensions in inches
Tolerances, unless otherwise specified, XX ±.03; .XXX ±.010

CONFIGURATION STYLES

MOUNTING STYLE B

WEIGHT: 2 LB 6 OZ MAXIMUM
WEIGHT IS DEPENDENT UPON CONFIGURATION REQUIRED.
PLEASE CONSULT FACTORY.

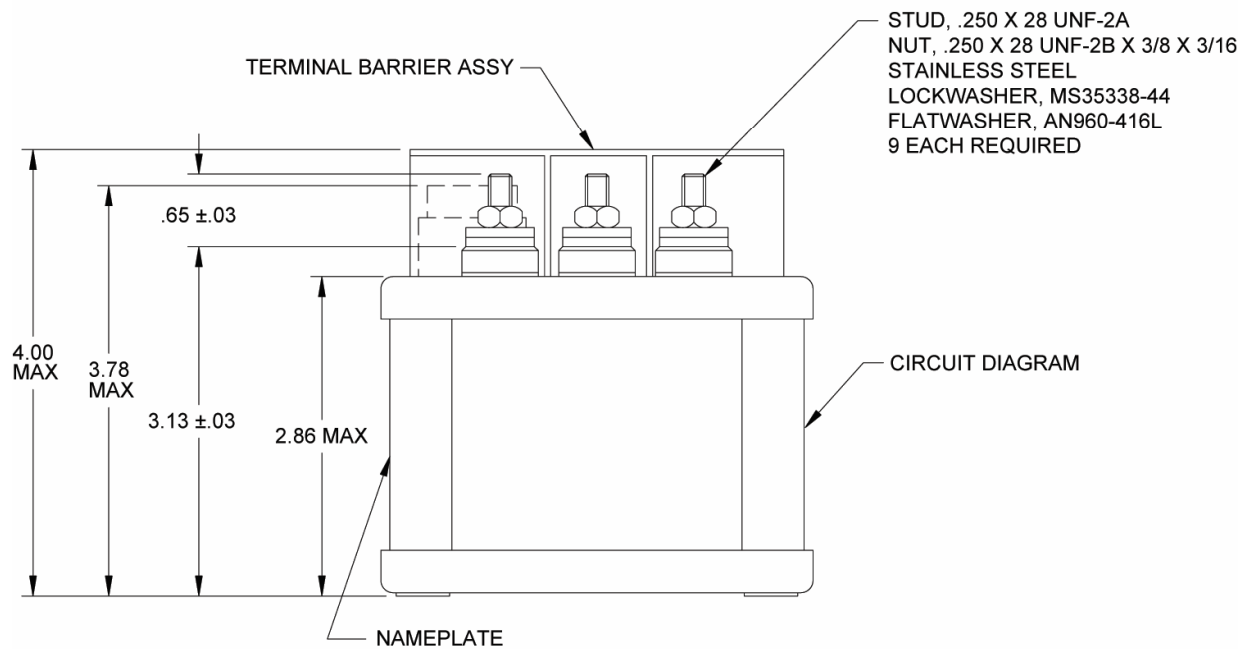
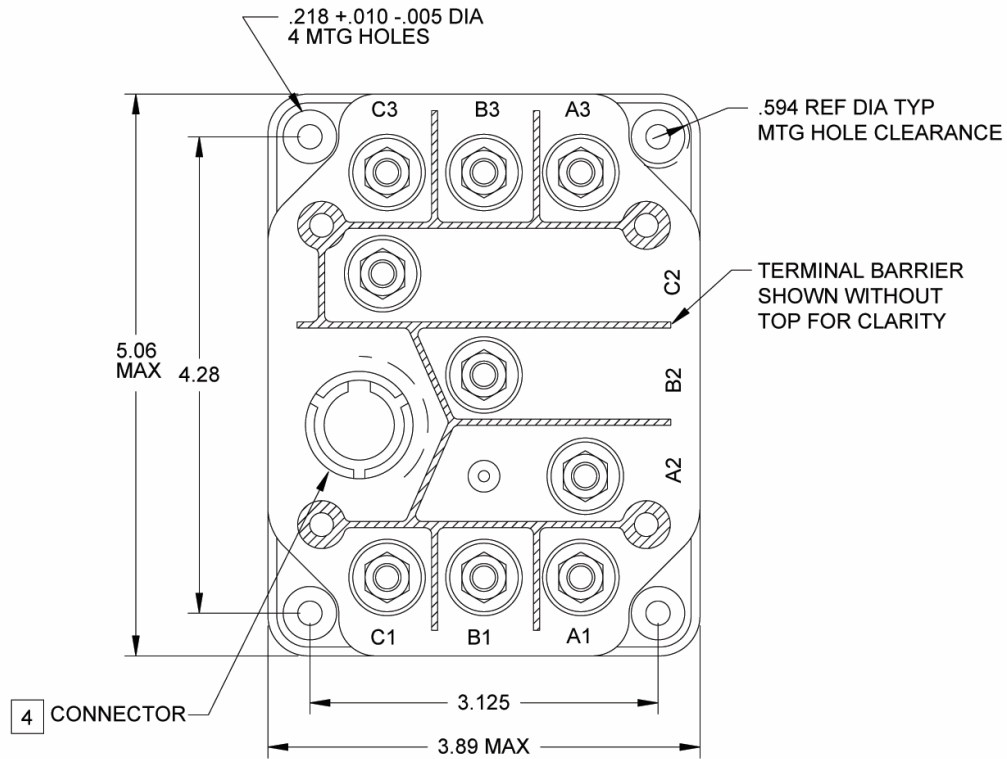


Dimensions in inches
Tolerances, unless otherwise specified, XX ±.03; .XXX ±.010

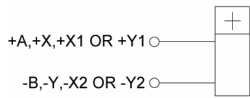
CONFIGURATION STYLES

MOUNTING STYLE K

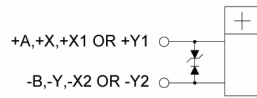
WEIGHT: 2 LB 13 OZ MAXIMUM



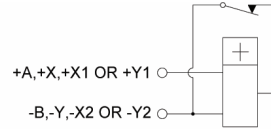
COIL CIRCUIT CONFIGURATION [3]



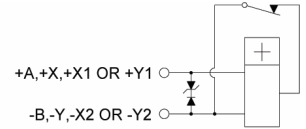
STANDARD
"A, B, C & F" COIL



STANDARD
WITH COIL SUPPRESSION
"N" COIL



ECONOMIZER COIL
"Y" COIL

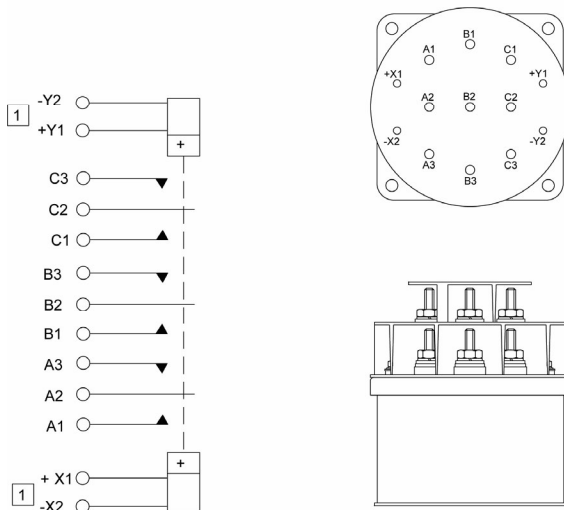


ECONOMIZER COIL
WITH COIL SUPPRESSION
"YN" COIL

TERMINAL CONFIGURATION AND CIRCUIT DIAGRAMS

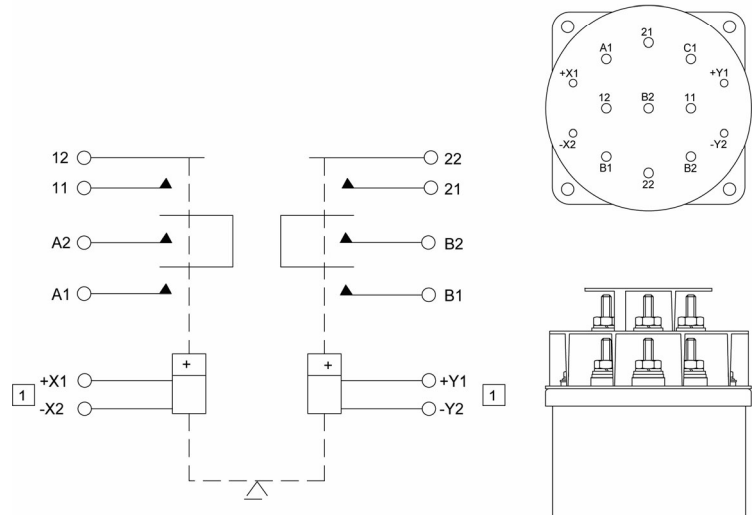
TERMINAL TYPE 1

3 PDT



TERMINAL TYPE 2

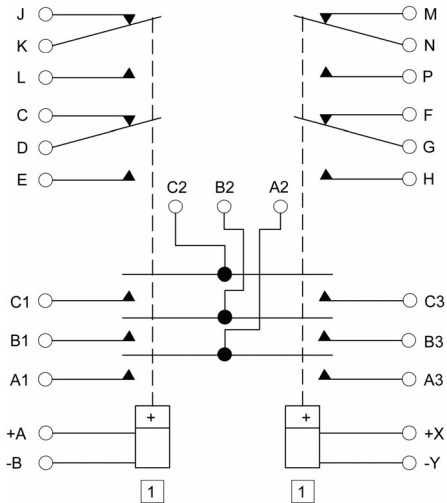
SPDT WITH 2 PST-N.O.
AUXILIARY CONTACTS [2]



TERMINAL CONFIGURATION AND CIRCUIT DIAGRAMS

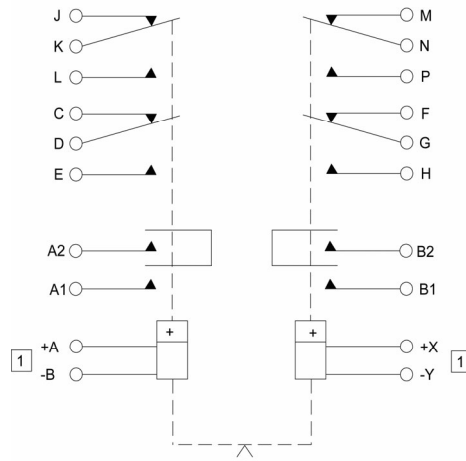
TERMINAL TYPE 3

3 PDT WITH 4 PDT
AUXILIARY CONTACTS 2



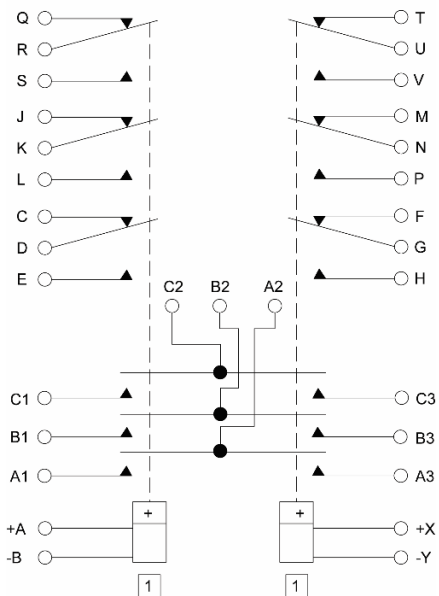
TERMINAL TYPE 4

SPDT DOUBLE MAKE
WITH 4 PDT AUXILIARY CONTACTS 2



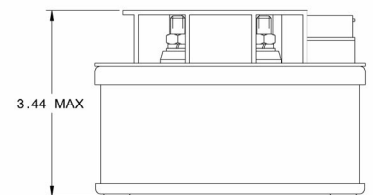
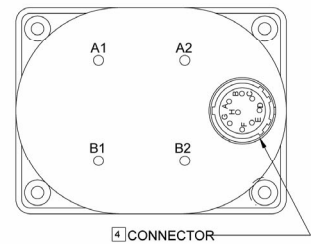
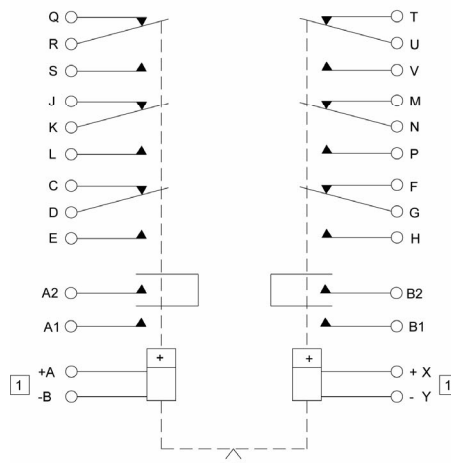
TERMINAL TYPE 5

3 PDT WITH 6 PDT
AUXILIARY CONTACTS 2



TERMINAL TYPE 6

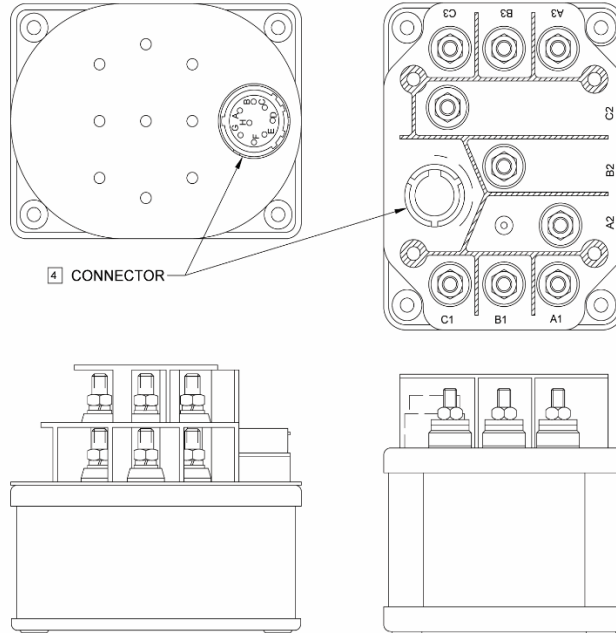
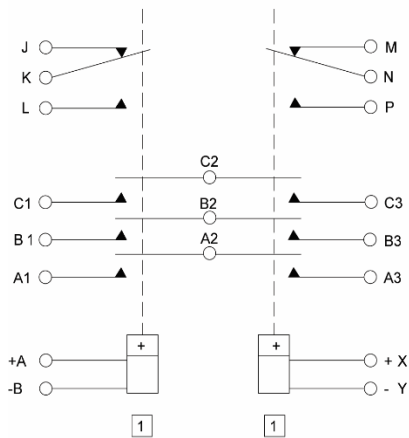
SPDT DOUBLE MAKE
WITH 6 PDT
AUXILIARY CONTACTS 2



TERMINAL CONFIGURATION AND CIRCUIT DIAGRAMS

TERMINAL TYPE 7

3 PDT WITH 2 PDT
AUXILIARY CONTACTS 2



TERMINAL TYPE 9

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

1 POLARITY INDICATION APPLIES TO D.C. COILS ONLY

2 AUXILIARY CONTACT RATING 28 VDC OR 115 VAC

RESISTIVE 5 AMP

INDUCTIVE 3 AMP

LAMP 1 AMP

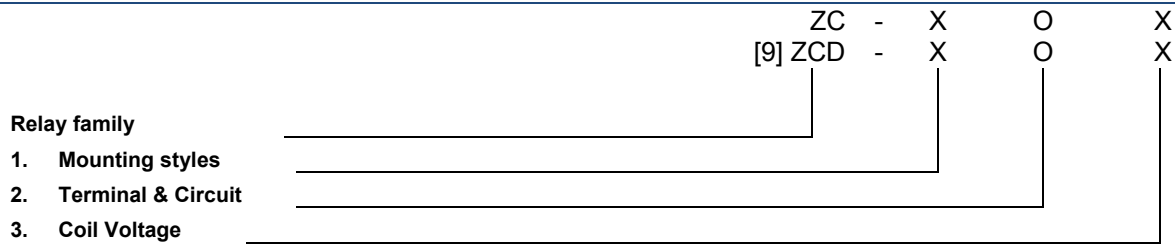
BOUNCE AT NOMINAL VOLTAGE .004 SEC MAX

3 COIL TERMINALS MAY BE IDENTIFIED AS
A-B, X1-X2, Y1-Y2 OR X-Y.

OTHER AUXILIARY CONTACT FORMS AVAILABLE,
PLEASE CONTACT FACTORY.

4 CIRCULAR CONNECTOR MS-STYLE OR EQUIVALENT

NUMBERING SYSTEM



NOTES

1. Inductive load life, 20,000 cycles.
2. Ratings are for double make terminal type 2, 4 & 6.
3. Alternate contact configurations and other special models available upon request. Please contact factory.
4. Greater values for suppressed coils.
5. Terminal strength per para. 3,4,8,2,1 of MIL-R-6106.
6. Suppressed "N & YN" coils have back EMF suppression to 62 Volts max.
7. Suitable for transfer between unsynchronized power sources at rating shown.
8. Economizer coils have a lower resistance primary coil for faster operate time. Once relay operates, the coil switches to a higher resistance for lower power drain. Do not ramp up voltage on these coils.
9. Non hermetic gasket sealed version.
10. 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