



Application Notes:

101
102
007

• **Balanced-Force Design**

• **Hermetically sealed**

• **Meets the standards and requirements of**

MIL-PRF-6106

PRINCIPLE TECHNICAL CHARACTERISTICS

- **Contacts rated at** 28 Vdc and 115 Vac, and 115/200 Vac, 400 Hz, 3Ø
- **Weight** Dependent upon configuration
- **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	28 Vdc [3]	28 Vdc [7]	DELTA 115/200 Vac, 60 Hz
Resistive	50	145	145	120	200	60
Inductive [2]	30	145	145	80	-	60
Motor	30	90	90	80	-	60
Load transfer, resistive [6]	-	-	120	-	-	-

COIL CHARACTERISTICS (Vdc)

CODE	A	B	C	F Vac 400 Hz	N [5]	Y [8]	YN [8]
Nominal operating voltage	28	12	6	115	28	28	28
Maximum operating voltage	29	14.5	7.3	124	29	29	29
Maximum pick-up voltage							
- 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 Ohms $\pm 10\%$ at +25° C	113	28	7	-	113	-	-
Coil current Amp max. @ Nom. Volt. And +25° C	0.31	0.60	1.2	0.12	0.31	-	-

GENERAL CHARACTERISTICS

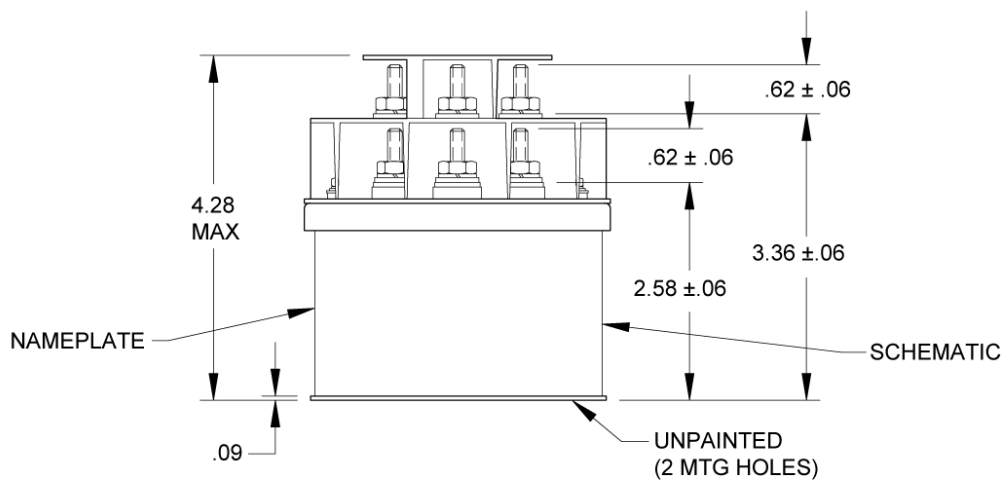
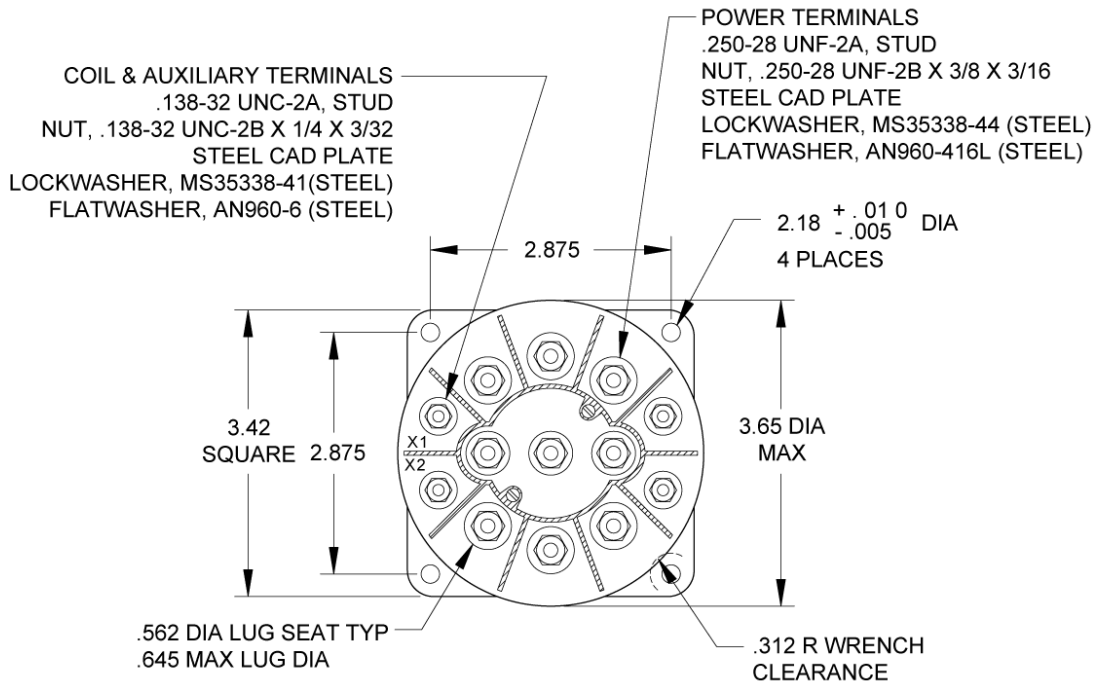
Temperature range	-55°C to +71°C
Minimum operating cycles (life) at rated load	50,000
Minimum operating cycles (life) at 25% rated load	100,000
Dielectric strength at sea level	
- All circuits to ground and circuit to circuit	1500 Vrms
- Coil to ground and Aux.contacts	1250 Vrms
Dielectric strength at 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 (55 to 1000 Hz)	10 G
Shock (10-12 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	125 ms mas
Release time at nominal voltage (Including bounce) : Economizer	
- DC	35 ms max
Contact bounce at nominal Voltage	4 ms max
Weight	Noted
Overload	1000 Amps @ 115/200 Vac, 400 Hz
Rupture	1400 Amps @ 115/200 Vac, 400 Hz
Altitude	50,000 Feet

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

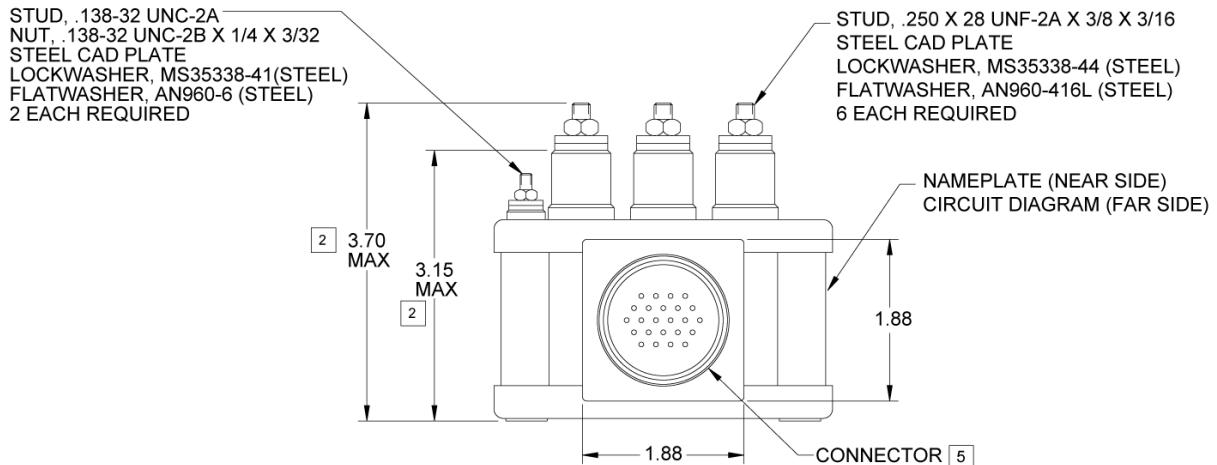
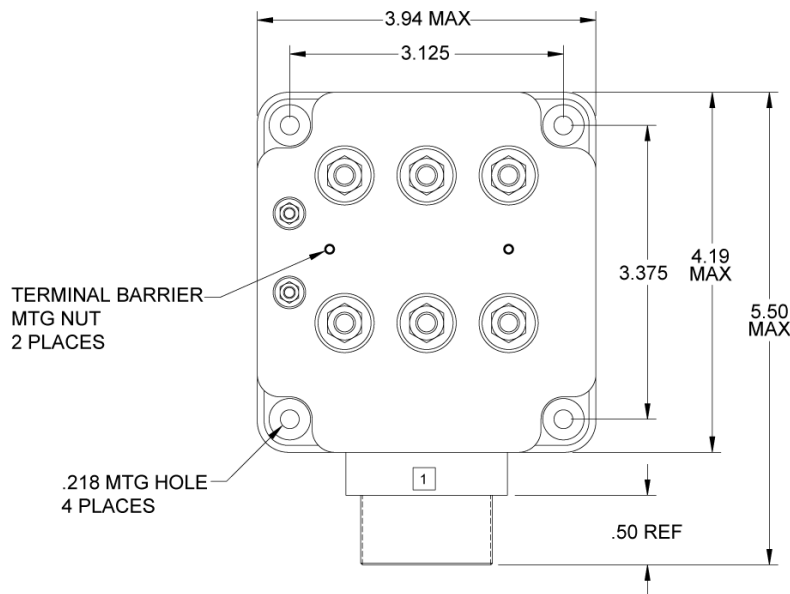
CONFIGURATION STYLES

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

CONFIGURATION STYLES

MOUNTING STYLE H

WEIGHT: 2 LB 8 OZ MAXIMUM



[2] MAXIMUM DIMENSIONS CAN BE REDUCED BY .50 INCH.

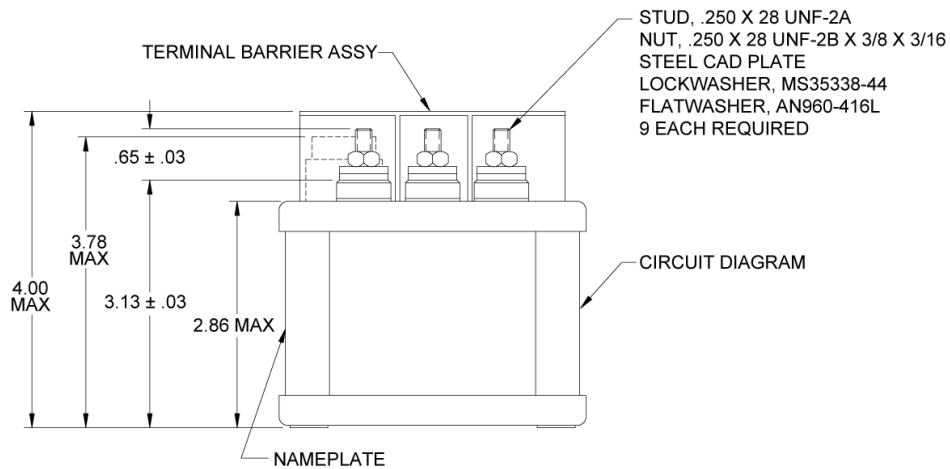
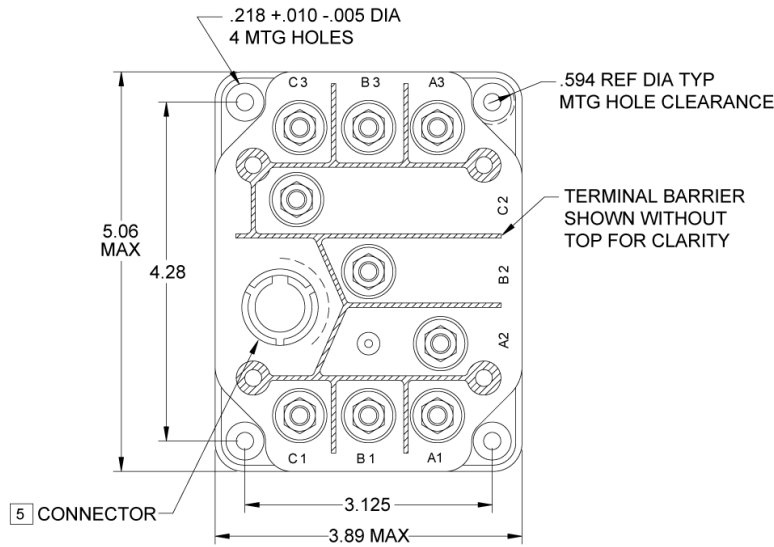
[5] CIRCULAR CONNECTOR MS-STYLE OR EQUIVALENT

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

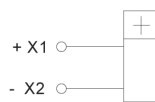
CONFIGURATION STYLES

MOUNTING STYLE K

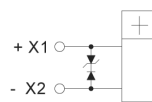
WEIGHT: 2 LB 13 OZ MAXIMUM



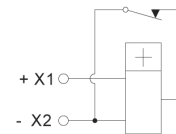
COIL CIRCUIT CONFIGURATION 3 4



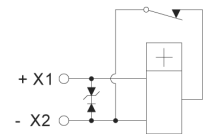
STANDARD
"A, B, C & F" COIL



STANDARD WITH
COIL SUPPRESSION
"N" COIL



ECONOMIZER COIL
"Y" COIL



ECONOMIZER COIL
WITH COIL SUPPRESSION
"YN" COIL

3 POLARITY INDICATION APPLIES TO D.C. COILS ONLY.

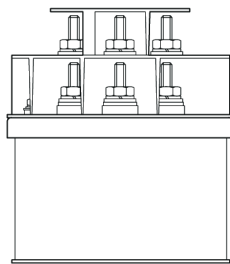
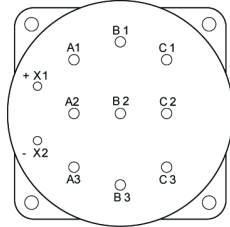
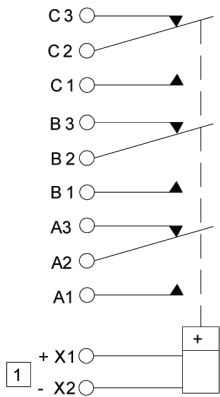
4 COIL TERMINALS MAY BE IDENTIFIED AS A-B OR X1-X2.

5 CIRCULAR CONNECTOR MS-STYLE OR EQUIVALENT

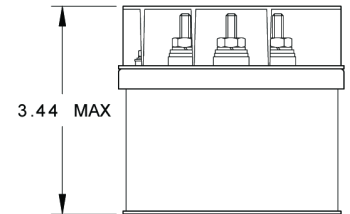
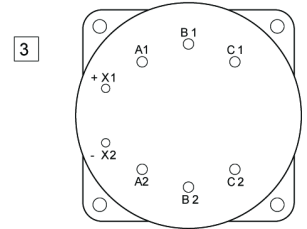
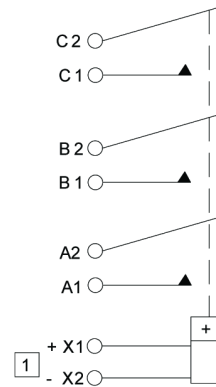
TERMINAL CONFIGURATION AND CIRCUIT DIAGRAMS

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

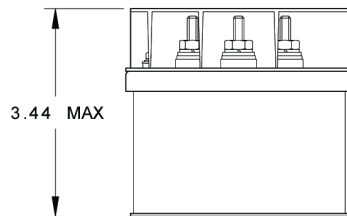
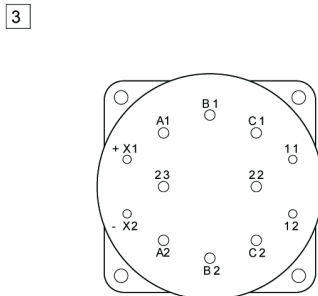
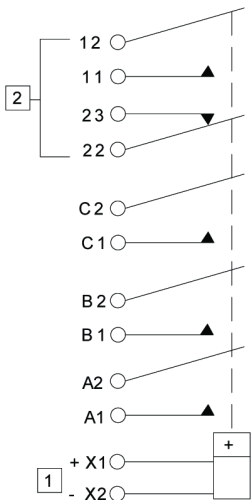
TERMINAL TYPE 1 3 PDT



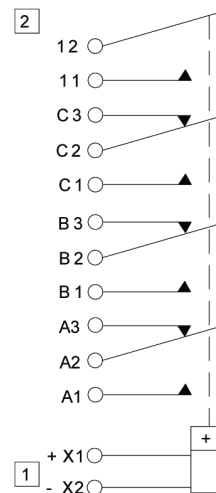
TERMINAL TYPE 2 3 PST-N.O.



TERMINAL TYPE 3 3 PST-N.O. WITH SPST-N.O. & SPST-N.C. AUXILIARY CONTACTS



TERMINAL TYPE 4 3 PDT WITH SPST-N.O. AUXILIARY CONTACT



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

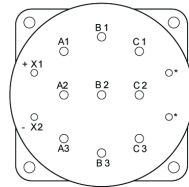
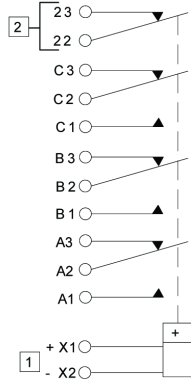
OTHER AUXILIARY CONTACT FORMS AVAILABLE,
INCLUDING LOW LEVEL CAPACITY

3 AVAILABLE IN "A" AND "H" MOUNTING

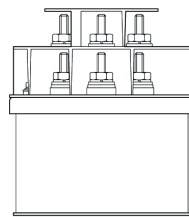
Dimensions in inches
Tolerances, unless otherwise specified,
XX ±.03
XXX ±.010

TERMINAL CONFIGURATION AND CIRCUIT DIAGRAMS

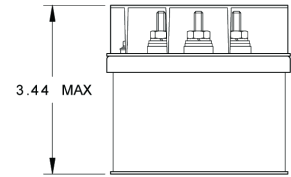
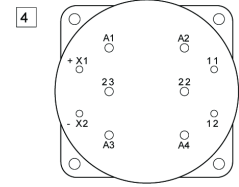
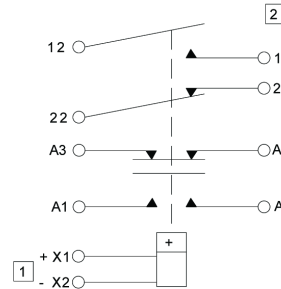
TERMINAL TYPE 5
3 PDT WITH SPST-N.C.
AUXILIARY CONTACT



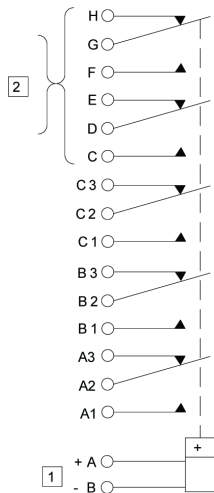
*SEE CIRCUIT DIAGRAM FOR AUX



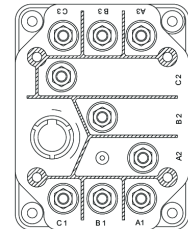
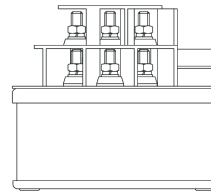
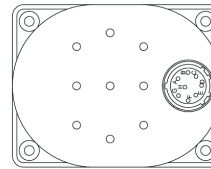
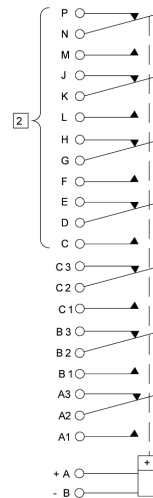
TERMINAL TYPE 6
SPDT-DOUBLE BREAK/MAKE
WITH SPST-N.O. & SPST-N.C.
AUXILIARY CONTACTS



TERMINAL TYPE 7
3 PDT WITH 2 PDT
AUXILIARY CONTACTS



TERMINAL TYPE 8
3 PDT WITH 4 PDT
AUXILIARY CONTACTS



TERMINAL TYPE 9
IS A GENERAL CATEGORY USED FOR ALL TERMINAL
TYPES NOT ILLUSTRATED. FOR OTHER VARIATIONS OF
TERMINAL CONFIGURATIONS-PLEASE CONTACT FACTORY.

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2 AUXILIARY CONTACT RATING 28 VDC OR 115 VAC

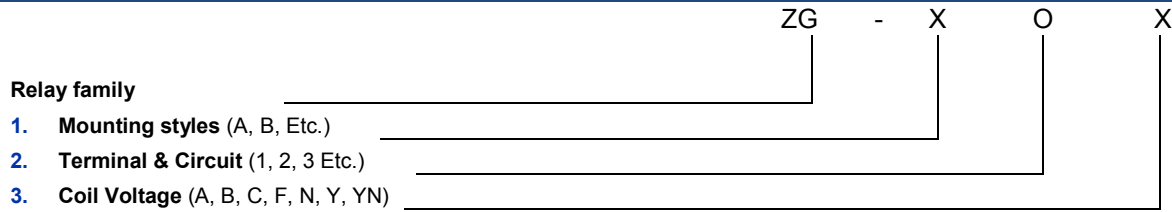
RESISTIVE	5 AMP
INDUCTIVE	3 AMP
LAMP	1 AMP
BOUNCE AT NOMINAL VOLTAGE	.004 SEC MAX

OTHER AUXILIARY CONTACT FORMS AVAILABLE,
INCLUDING LOW LEVEL CAPACITY

3 AVAILABLE IN "A" AND "H" MOUNTING

4 AVAILABLE IN "A" AND "B" MOUNTING

NUMBERING SYSTEM



NOTES

1. Auxiliary contact rating - see page 8, note [2].
2. Inductive load life, 20,000 cycles.
3. Ratings are for double break/make terminal type 6.
4. Alternate contact configurations and other special models available upon request. Please contact factory.
5. Back EMF suppression to 62 Volts Max.
6. Suitable for transfer between unsynchronized AC power sources at rating shown.
7. 200 Amps resistive, 25,000 cycles only, terminal style 6.
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. 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