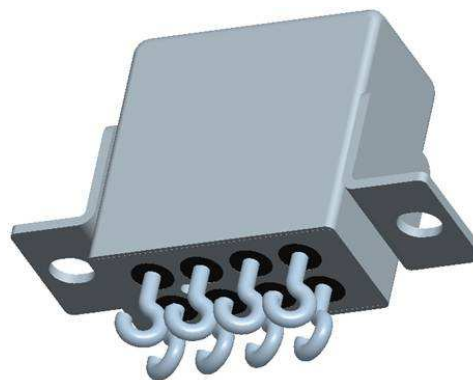
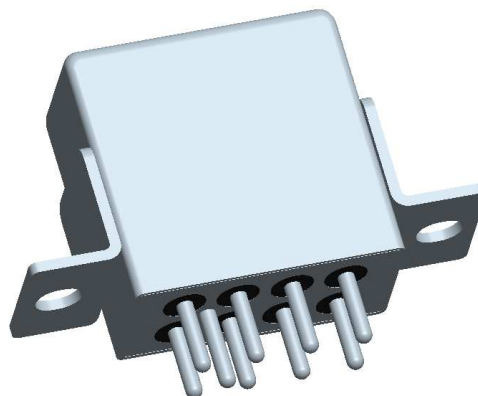


SERIES FCAV-210
RELAY-NONLATCH
5 Ampere/ 230VAC-400 Hz, 2PDT

*Contacts rated at 230 VAC for higher voltage systems on more electric aircraft.

PRODUCT FACTS:

- Non latching Hermetically Sealed Relay
- Balanced force design.
- Permanent Magnet drive. Polarized single side stable design.
- All welded construction
- Coils Available :
 DC: 6, 12 and 28VDC.
 AC: 28,115 VAC (50/400Hz).
- Contacts: Silver Cadmium Oxide with Gold plating.
- Designed and built in accordance with MIL- PRF-83536.
- Weight 45.4 grams (1.6 ounces) Max.



PRODUCTION DATA SHEET

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 Only. Specifications subject to change.

CAGE CODE

SCALE

NONE

SHEET

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GENERAL CHARACTERISTICS

Temperature range	-70°C to +125°C
Altitude	300,000 feet
Dielectric strength at sea level	
- All circuits to ground and circuit to circuit.	1250 Vrms
- Coil to ground	1000 Vrms
Dielectric strength at altitude 80,000 FEET	350Vrms
Insulation resistance: Initial at 500 Vdc	100 MΩ min.
After life or environmental test	50 MΩ min.
Vibration Sinusoidal:* Z, Y & X Enclosures	30G for 33 to 3000 Hz
W & M Enclosures (STUD MTG.)	20G for 33 to 3000 Hz
Vibration, Random:* Z, Y & X Enclosures	0.4 g ² /Hz 50-2000Hz
W & M Enclosures (STUD MTG.)	0.2 g ² /Hz 50-2000Hz
Shock:* Z, Y & X Enclosures	200g For 6 ms
W & M Enclosures (STUD MTG.)	100g For 6 ms
Operate time at nominal voltage : DC Relays	10 ms Max.
: AC Relays	15 ms Max.
Release time at nominal voltage : DC Relays	10 ms Max.
: AC Relays	50 ms Max.

*Max.contact opening under vibration or shock 10 microseconds.

COIL DATA:

Coil Code	Nominal Voltages	Freq. Hz	DC Res. AC AMPS(B)	Over Temperature Range		
				Pick up or Below Volts	Dropout or above Volts	Must Hold voltage(C)
1	6	DC	20Ω	4.5	0.3	2.5
2	12	DC	80Ω	9.0	0.75	4.5
3	28	DC	320Ω	18.0	1.5	7.0
4(A)	28	DC	320Ω	18.0	1.5	7.0
5	48	DC	920Ω	32.0	2.5	14.0
6	28 VAC	400 Hz	180 mA	22.0	1.25	10.0
7	28 VAC	50/400 Hz	100 mA	22.0	1.25	10.0
8	115 VAC	400 Hz	40 mA	90.0	5.0	40.0
9	115 VAC	50/400 Hz	30 mA	95.0	5.0	40.0

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- A. Code 4 coils have back EMF suppression to 42 Volts max.
- B. DC Coil Resistance $\pm 10\%$ at 25 degree C.
- C. Relay will stay in picked-up state down to Must Hold Voltages shown.
- D. Max Overvoltage: 6 & 12 VDC Coils 120% of Nominal; All others 110% of nominal.
- E. Coils available for other voltages and for AC 50/60 Hz.

CONTACT ELECTRICAL CHARACTERISTICS

Type of Load	Life(Min.) Cycles X10 ³	28VDC	115VAC 400 Hz	230VAC 400Hz	115/200 VAC 3 ϕ	
					400Hz	60Hz*
Resistive	100	10	10	5	10	2.5
Inductive	20	8	8	-	8	2.5
Motor	100	4	4	-	4	2.0
Lamp	100	2	2	-	2	1

* 60 Hz Loads rated for 10000 operations

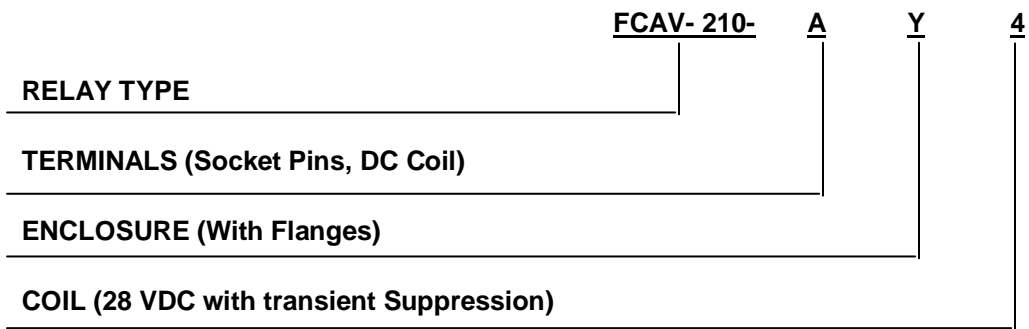
- A. Overload Current 40 Amps DC, 60 Amps 400 Hz.
- B. Rupture Current 50 Amps DC, 80 Amps 400 Hz.
- C. Contact Make Bounce 1 Millisecond at Nominal Voltage.
- D. Max. Contact drop at 10 Amps: initial 0.100 Volts.
- E. End of Life 0.125 Volts.

All endurance ratings are subject to validation - consult factory

PART NUMBERING SYSTEM

How to order-:

(Example)



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CAGE CODE

SCALE

NONE

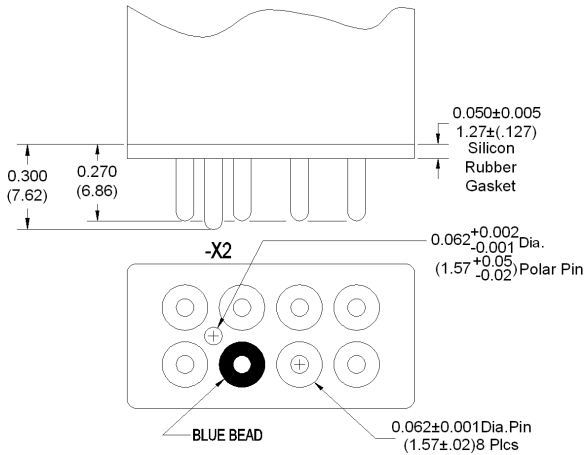
SHEET

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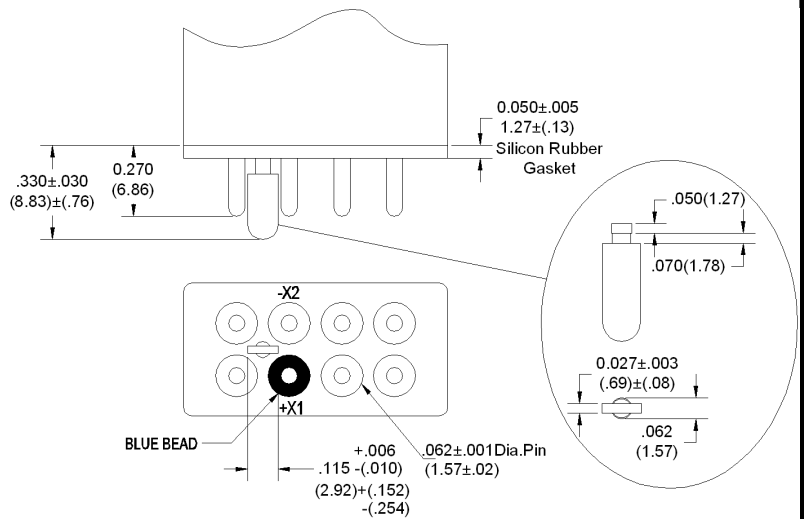


TERMINALS

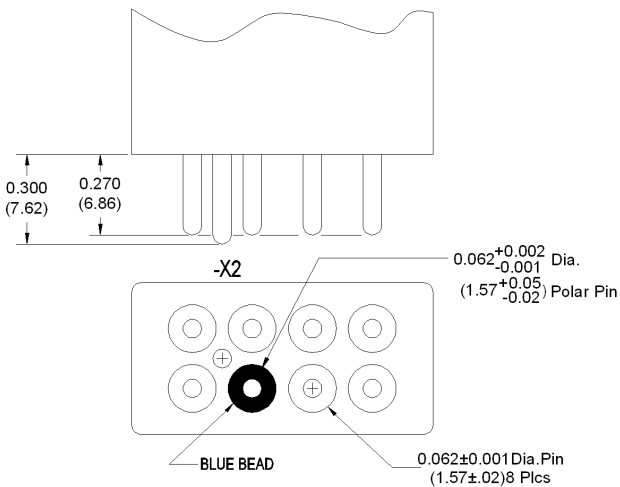
CODE "A" Socket Pins, Gold Plated – All DC Coils.



CODE "D" Socket Pins – 115 VAC

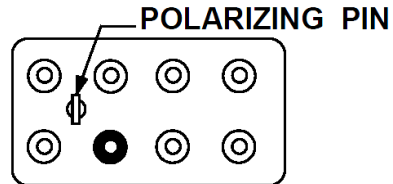


CODE "B" Circuit Board Pins, Tin/Lead Plated

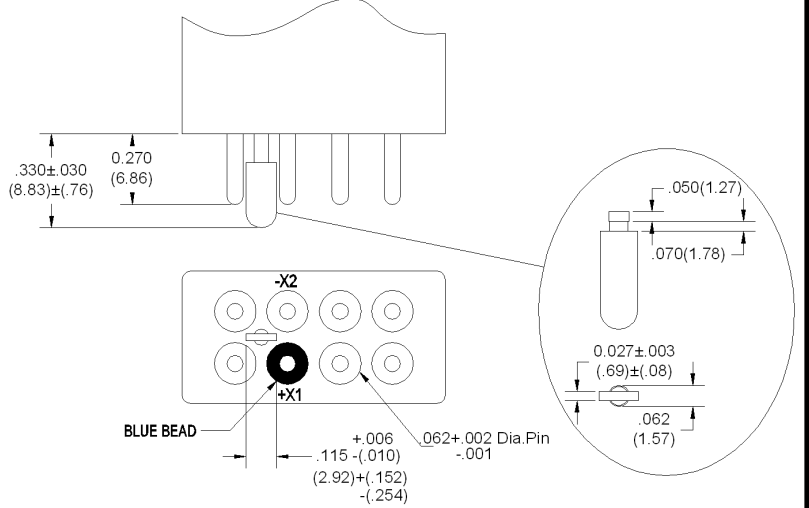


CODE "E" Socket Pins – 28 VAC Coils

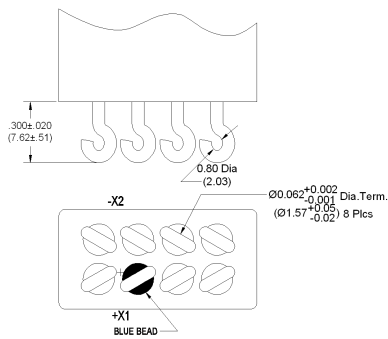
Same as Code "D" except polarizing Pin turned 90° to this plane.



CODE "F" Circuit Board Pins 115 VAC Coils



CODE "C" Solder Hook Terminals (Hook TERMINALS TIN/LEAD PLATED).



Dimensions are shown in inches ± .010 and (Millimeters ± .25).



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CAGE CODE

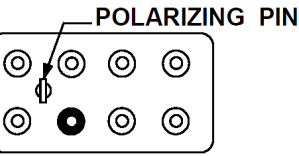
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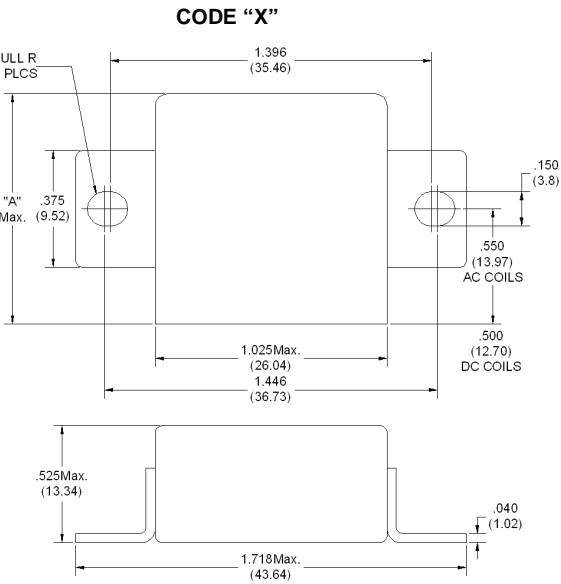
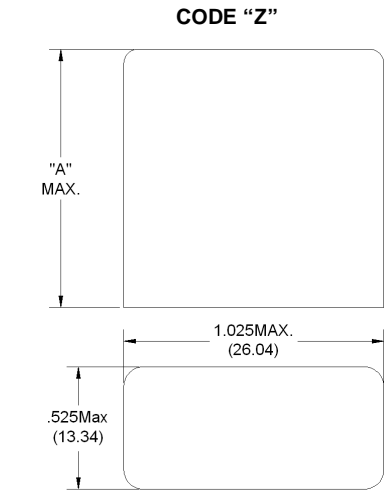
SHEET

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CODE "G" Circuit Board Pins 28 VAC Coils
 Same as Code "F" except polarizing Pin turned 90°
 To this plane.

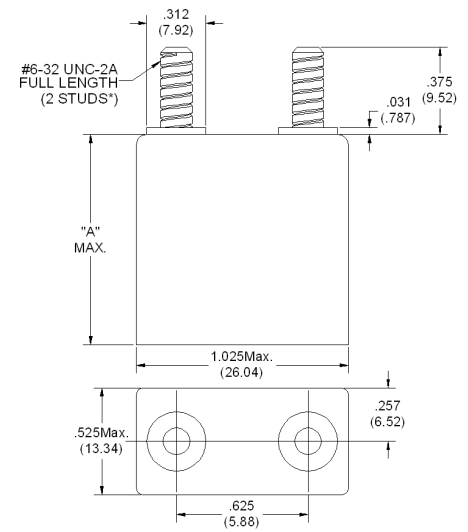
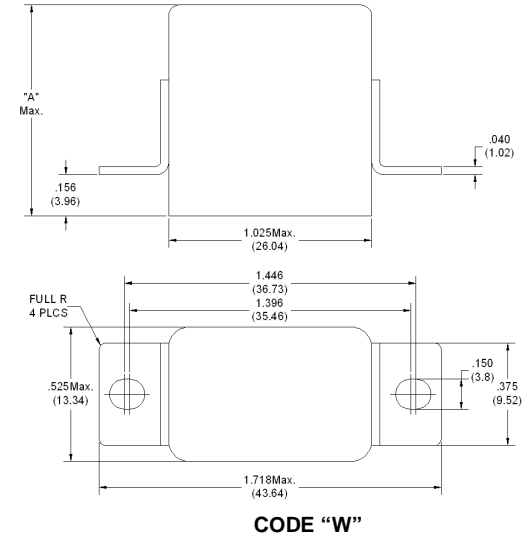
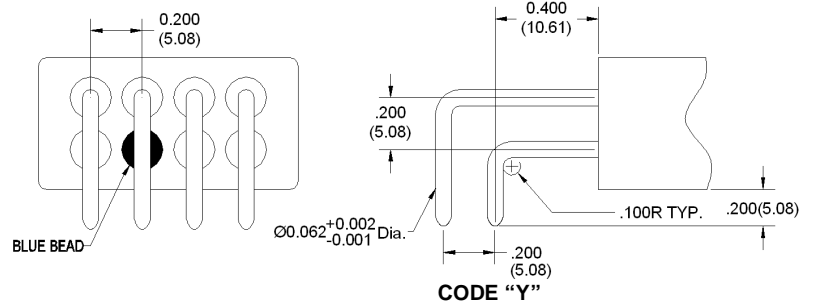


ENCLOSURES



****Dim. "A" -AC Coils 1.125 in. (28.57) Max.**
-DC Coils 1.010 in. (25.65) Max.

CODE "H" 90°Solder Pins
 All pins Bright Acid Tin/lead



* Metric threads available, To specify use M in place of W

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SCALE

NONE

SHEET

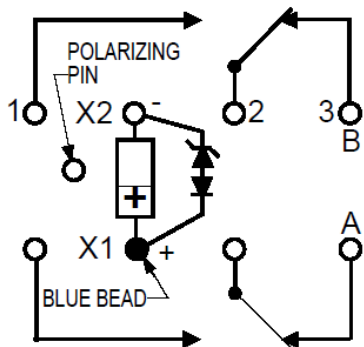
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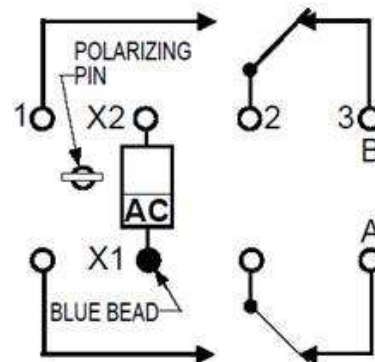
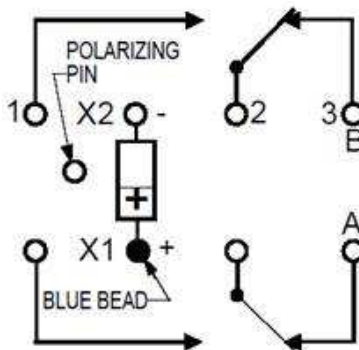
TERMINAL WIRING DIAGRAM

AC COILS
115 VAC

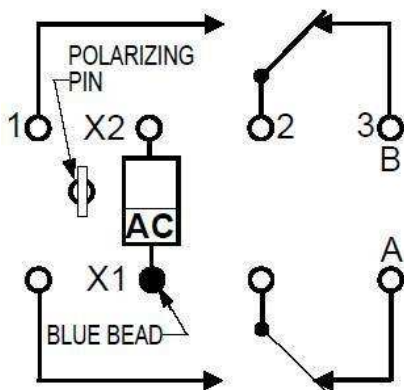
DC COILS WITH TRANSIENT SUPPRESSION



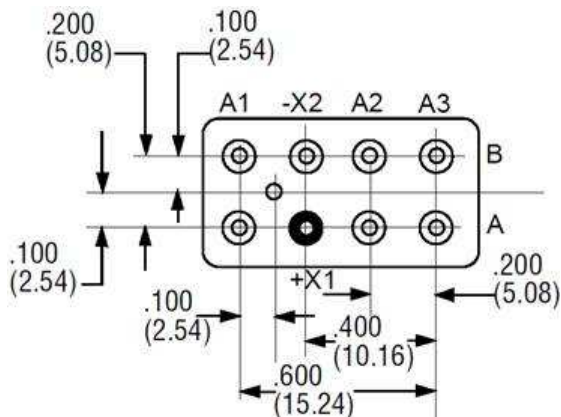
DC COILS



AC COILS
28 VAC



TERMINAL LAYOUT



NOTES:

1. POLARITY MUST BE OBSERVED WITH DC COIL SUPPLY. RELAY IS POLARIZED AND WILL NOT OPERATE OR BE DAMAGED BY REVERSE POLARITY.
2. DIODES USED IN TRANSIENT SUPPRESSION AND IN AC RECTIFIER CIRCUITS HAVE PEAK INVERSE VOLTAGE RATING OF 600 VDC MIN. ZENER DIODES HAVE MIN. RATING OF 1 WATT.
3. TERMINAL DESIGNATIONS ARE FOR REFERENCE ONLY & DO NOT APPEAR ON THE HEADER.



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