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P	LTR	DESCRIPTION	DATE	DWN	APVD
	A	INITIAL RELEASE	28OCT2019	RV	MB

General Specifications

Temperature Rating —

-70°C TO +125°C

Altitude — 300,000 Feet

Shock* —

Z & Y Enclosures —

200 g for 6 mS

W, X & M Enclosures —

100 g for 6 mS

T Enclosure (In Track) —

50 g for 11 mS

Vibration, Sinusoidal* —

Z & Y Enclosures —

30 g 70-3000Hz

W, X & M Enclosures —

20 g 70-3000Hz

T Enclosure (Socket Mounted in Track) —

20 g 500-3000 Hz

Vibration, Random* —

Z & Y Enclosures —

0.4 g²/Hz 50-2000Hz

T, W, X & M Enclosures —

0.2 g²/Hz 50-2000Hz

Dielectric Strength —

At Sea Level —

All circuits to ground and circuit to circuit — 1000 V rms

Coil to ground — 1000 V rms

At 80,000 Feet — 250 V rms

Insulation Resistance —

Initial (500 VDC) — 100 MΩ Min.

After Life or Environmental Tests —

50 MΩ Min.

Operate Time at Nominal Voltage — 6 ms or less

Release Time at Nominal Voltage — 6 ms or less

Release Time at Nominal Voltage — 6 ms or less

* Max. contact opening under vibration or shock 10 microseconds

Coil Data

Coil Code	Nominal Voltages	Freq. Hz	DC Res. (B)	Over Temperature Range		
				Pickup or Below Volts	Dropout or Above Volts	Must Hold Voltage (C)
1	6	DC	25 Ω	4.5	0.3	2.5
2	12	DC	78 Ω	9.0	0.75	4.5
3	28	DC	400 Ω	18.0	1.5	7.0
4 (A)	28	DC	400 Ω	18.0	1.5	7.0
5	48	DC	1275 Ω	36.0	2.5	14.0

A. CODE 4 COILS HAVE BACK EMF SUPPRESSION TO 42 VOLTS MAX.

B. DC COIL RESISTANCE ± 10% AT 25°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.

Contact Rating — Amperes Ratings Are Continuous Duty

Type of Load	Life (Min.) Cycles x 10 ³	28 VDC	115VAC 400Hz	115/200VAC 400Hz-3Ø
Resistive	100	5	5	5
Inductive	20	3	5	5
Motor	100	2	3	3
Lamp	100	1	1	1

Low Level Switching Capability: With contacts operating a load of 10 to 50 microamperes at 10 to 50 millivolts, the contact resistance miss detection level shall be 100 ohms max. Cycling rate is 1 to 12 per second, for 100,000 operations.

Overload Current — 20 AMPS DC, 30 AMPS 400Hz

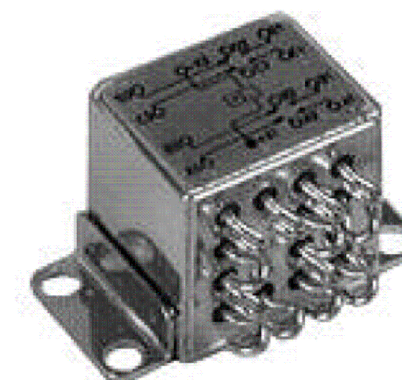
Rupture Current — 25 AMPS DC, 40 AMPS 400Hz

Contact Make Bounce — 1.0 MILLISECOND AT NOMINAL VOLTAGE

Max. Contact Drop at 5 Amps — INITIAL 0.100 VOLTS

End of Life — 0.125 VOLTS

The Series FCB-405 relay is a polarized single-side stable design, where the flux from a permanent magnet provides the armature holding force in the deactivated state, and its flux path is switched and combined with the coil flux in the operated state. This results in appreciably


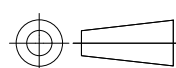


Product Facts

- Hermetically Sealed
- All Welded Construction
- Balanced Force
- Permanent Magnet Drive
- Contacts rated low level to 5 Amps 28 VDC and 115/200 VAC 400 Hz, 3 Phase
- Weight .93 ounces max. (26.4 grams)
- Qualified to M83536/5 & /6

increased contact pressure in both states over that of a spring return nonpolar design. We also manufacture other versions of this relay:

FCB-205 — 5 Amp DPDT Relay

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		CHK RV 28OCT2019			
DIMENSIONS: INCHES		APVD MB 28OCT2019	NAME C-FCB-405-SERIES		
		PRODUCT SPEC	-		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPLICATION SPEC	-		
0 PLC ± -		SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
1 PLC ± -		—	A3	—	—
2 PLC ± -		WEIGHT	—		
3 PLC ± -		CUSTOMER DRAWING			
4 PLC ± -		SCALE NTS SHEET 1 OF 2 REV A			
ANGLES ± -					
MATERIAL					
FINISH					

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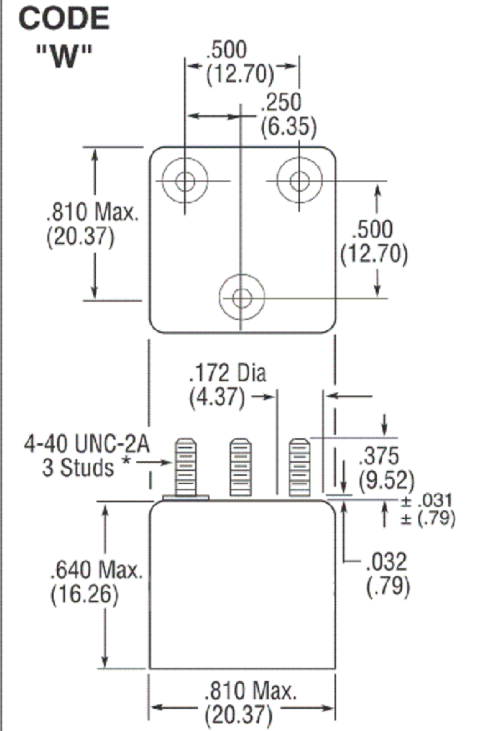
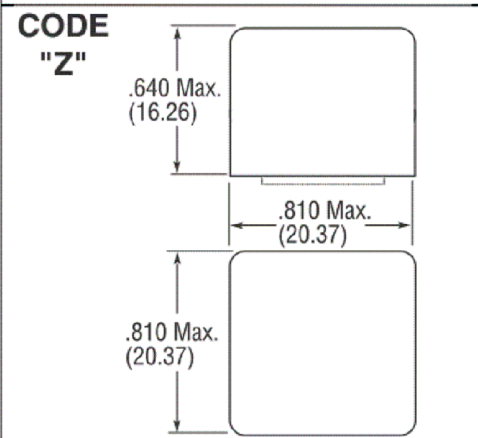
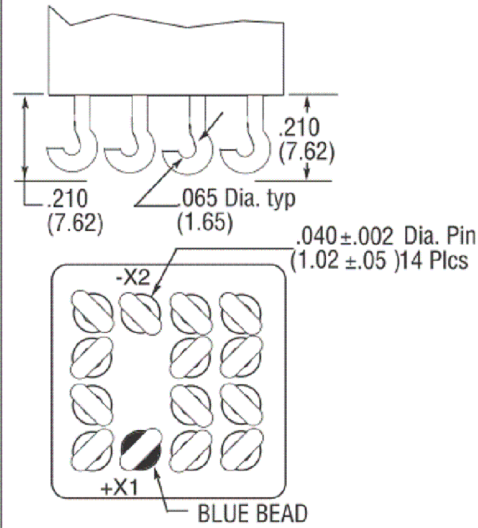
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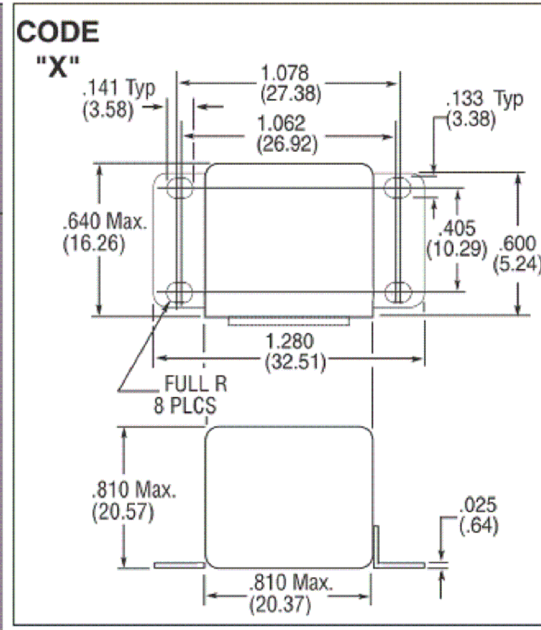
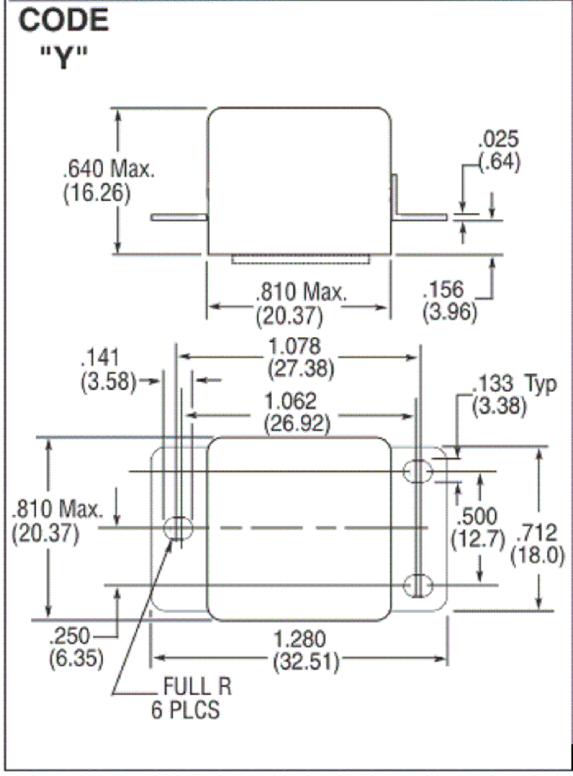
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P	LTR	DESCRIPTION	DATE	DWN	APVD
-	-	SEE SHEET 1	-	-	-

CODE "C"
Solder Hook Terminals
 HOOK TERMINALS TIN/LEAD PLATED



Enclosures
 All Enclosures have cupro-Nickel cans bright acid tin/lead plated after assembly to terminal headers.
 Dimensions: Inches ± .010 (mm ± .25)

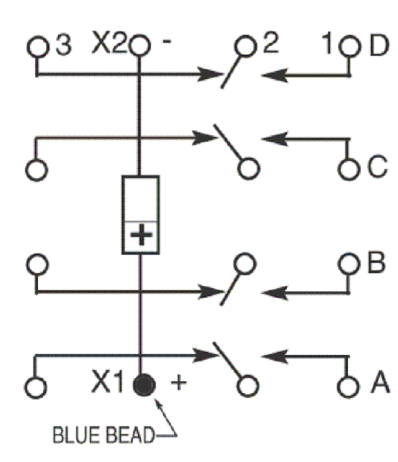


NOTE: Polarity must be observed with DC coil supply. Relay is polarized with a permanent magnet and will not operate or be damaged by reverse polarity.

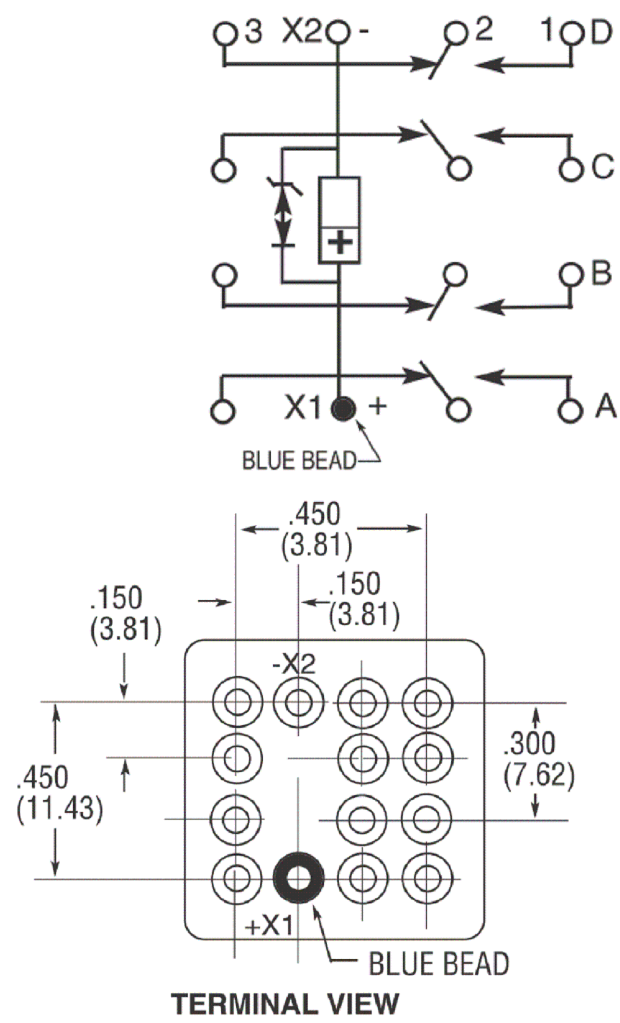
Diodes used in transient suppression and in AC rectifier circuits have peak inverse voltage rating of 600 VDC minimum. Zener diodes have a minimum rating of 1 watt.

Terminal designations are for reference only and do not appear on the header.

Terminal Wiring
DC Coils



DC Coils with Transient Suppression



HOW TO ORDER

RELAY TYPE _____

SOLDER HOOKS, DC COIL _____

ENCLOSURE (With Flanges) _____

COIL (28 VDC With Transient Suppression). _____

TERMINAL VIEW
FCB-405-A Y 4

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0 PLC ± -		PRODUCT SPEC	C-FCB-405-SERIES			
1 PLC ± -		APPLICATION SPEC	-			
2 PLC ± -		WEIGHT	SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
3 PLC ± -		-	A3	-	C-FCB-405-SERIES	-
4 PLC ± -		MATERIAL	CUSTOMER DRAWING		SCALE	SHEET
ANGLES ± -		FINISH	SCALE NTS		SHEET 2 OF 2	REV A

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