

REVISIONS					
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 g<sup>2</sup>/Hz 50-2000Hz  
T, W, X & M Enclosures —  
0.2 g<sup>2</sup>/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

\* 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

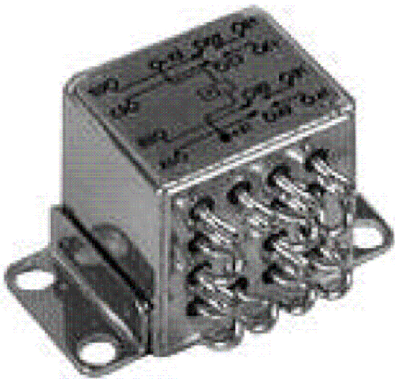
- A. CODE 4 COILS HAVE BACK EMF SUPPRESSION TO 42 VOLTS MAX.  
B. DC COIL RESISTANCE ± 10% AT 25°C  
C. RELAY WILL STAY IN PICKED-UP STATE DOWN TO MUST HOLD VOLTAGES SHOWN.  
D. MAX. OVERVOLTAGE: 6 & 12 VDC COILS 120% OF NOMINAL; ALL OTHERS 110% OF NOMINAL.

Contact Rating — Amperes  
Ratings Are Continuous Duty

Type of Load	Life (Min.) Cycles x 10 <sup>3</sup>	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




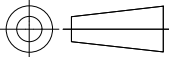
Product Facts

- 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:

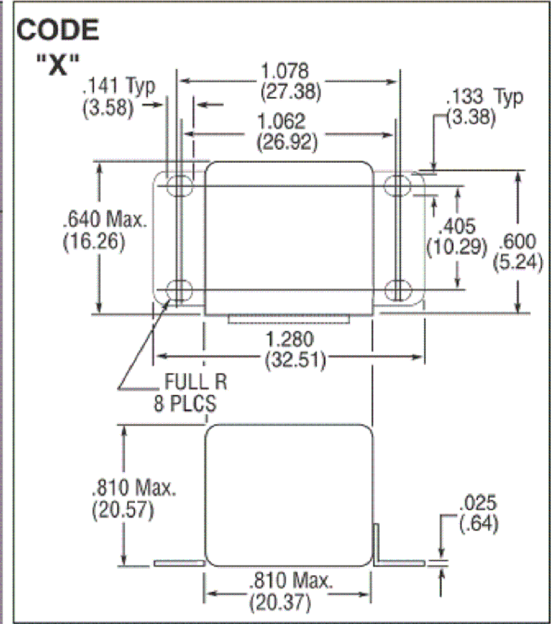
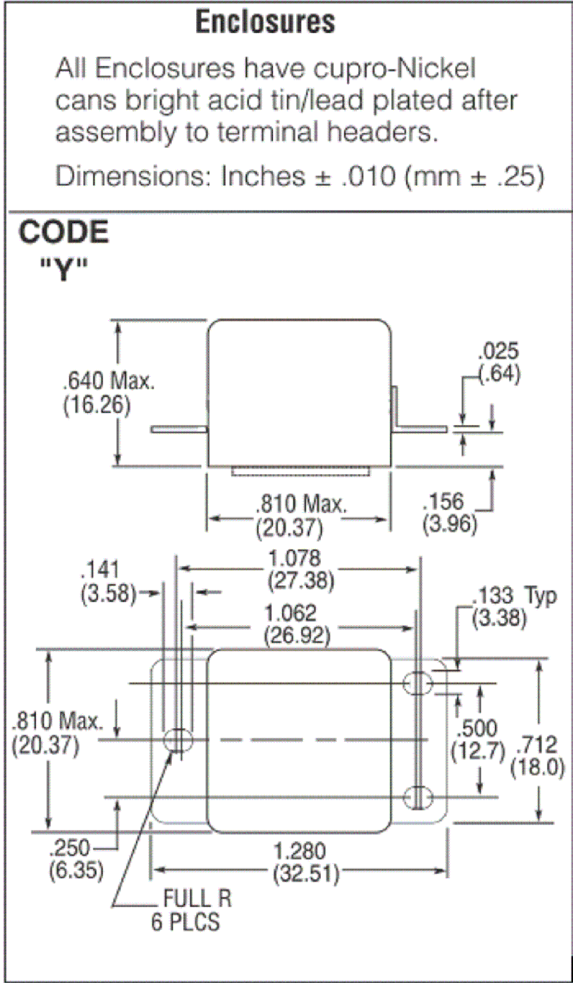
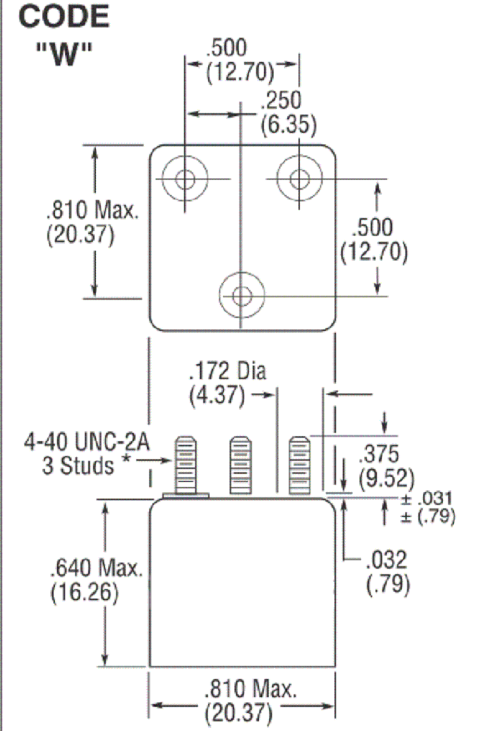
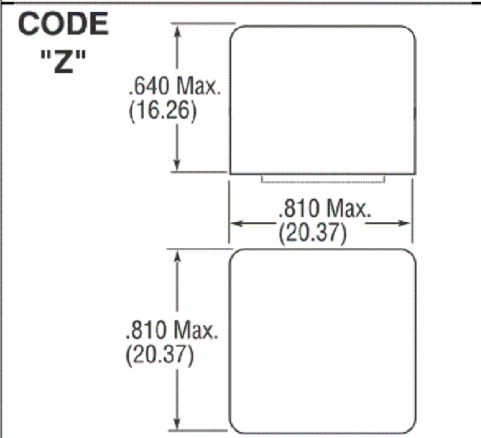
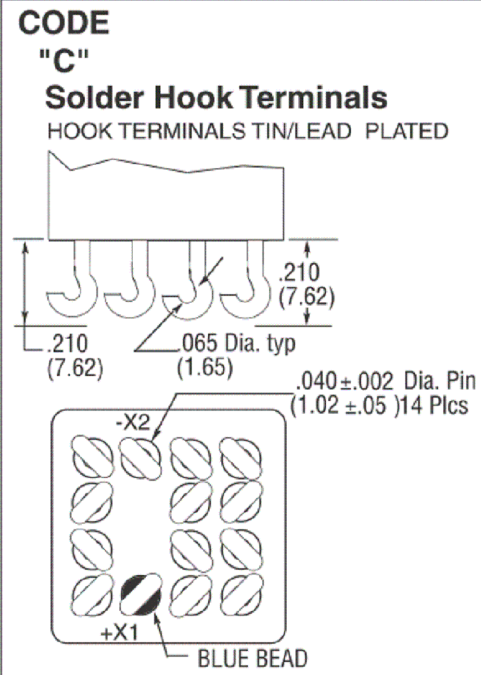
**FCB-205** — 5 Amp DPDT Relay

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

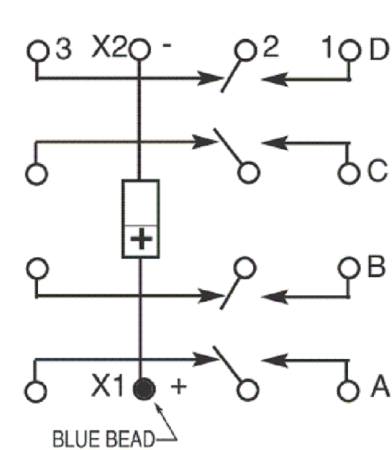
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN RV 28OCT2019	<div>TE Connectivity</div>					
		CHK RV 28OCT2019						
DIMENSIONS: INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED:  0 PLC ± — 1 PLC ± — 2 PLC ± — 3 PLC ± — 4 PLC ± — ANGLES ± —	APVD MB 28OCT2019	NAME  C-FCB-405-SERIES  —  —					
		PRODUCT SPEC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



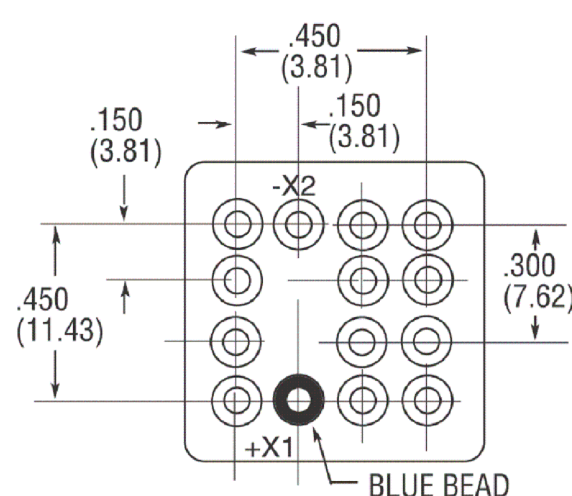
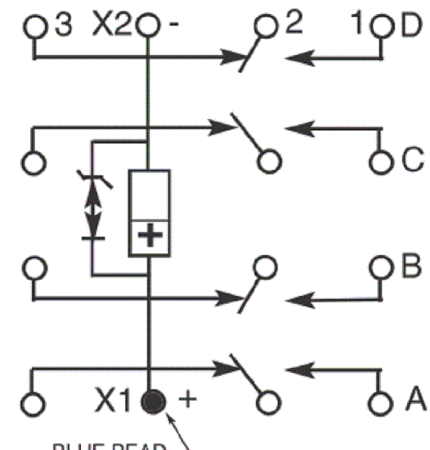
REVISIONS					
P	LTR	DESCRIPTION	DATE	DWN	APVD
	—	SEE SHEET 1	—	—	—



**Terminal Wiring**  
**DC Coils**



**DC Coils with Transient Suppression**



**TERMINAL VIEW**  
**FCB-405-A Y 4**

**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.

**HOW TO ORDER**

**RELAY TYPE** \_\_\_\_\_

**SOLDER HOOKS, DC COIL** \_\_\_\_\_

**ENCLOSURE** (With Flanges) \_\_\_\_\_

**COIL** (28 VDC With Transient Suppression). \_\_\_\_\_

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN RV 28OCT2019	TE Connectivity		
		CHK RV 28OCT2019			
		APVD MB 28OCT2019	NAME		
		PRODUCT SPEC	C-FCB-405-SERIES		
		APPLICATION SPEC	—		
		WEIGHT	—		
		CUSTOMER DRAWING	—		
		SCALE	NTS		
		SHEET	2 of 2		
		REV	A		

# Mouser Electronics

Authorized Distributor

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[M83536/5-029M](#)