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^2/Hz 50-2000Hz
T, W, X & M Enclosures —
0.2 g^2/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 10^3	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

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**

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 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

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: INCHES

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ± –
1 PLC ± –
2 PLC ± –
3 PLC ± –
4 PLC ± –
ANGLES ± –

MATERIAL –
FINISH –

DWN	RV	28OCT2019
CHK	RV	28OCT2019
APVD	MB	28OCT2019
PRODUCT SPEC	–	
APPLICATION SPEC	–	
WEIGHT	–	

TE Connectivity

NAME C–FCB–405–SERIES – –

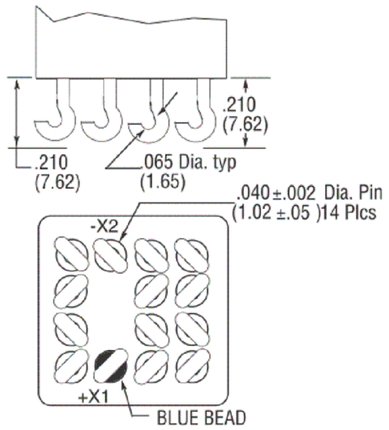
SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A3	–	C–FCB–405–SERIES	–

CUSTOMER DRAWING | SCALE NTS | SHEET 1 OF 2 | REV A

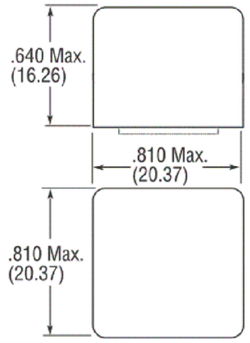
REVISIONS					
P	LTR	DESCRIPTION	DATE	DWN	APVD
	–	SEE SHEET 1	–	—	—

CODE "C" Solder Hook Terminals

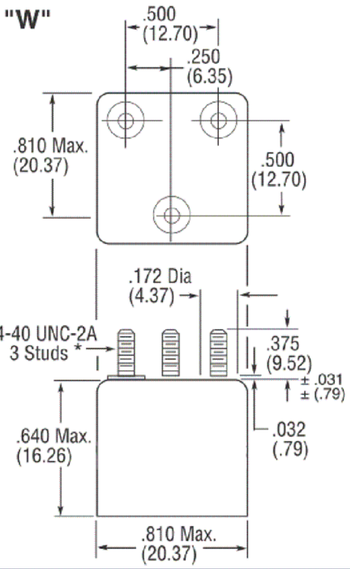
HOOK TERMINALS TIN/LEAD PLATED



CODE "Z"



CODE "W"

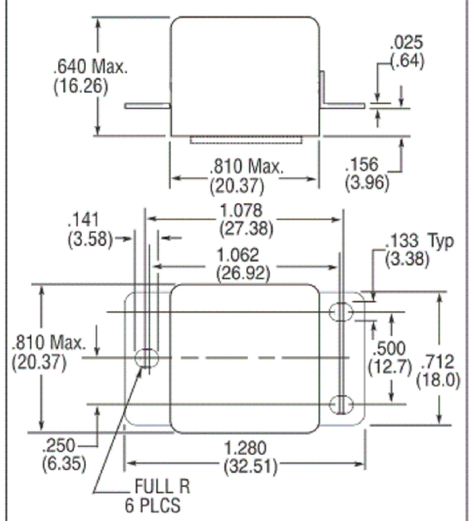


Enclosures

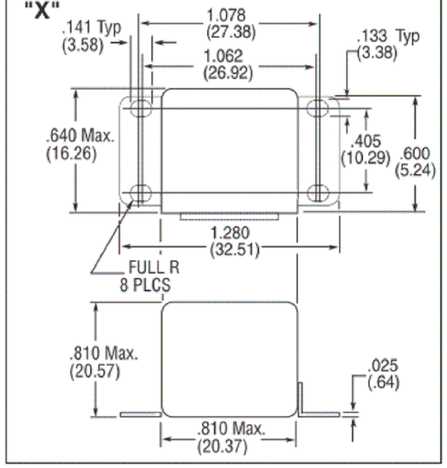
All Enclosures have cupro-Nickel cans bright acid tin/lead plated after assembly to terminal headers.

Dimensions: Inches ± .010 (mm ± .25)

CODE "Y"



CODE "X"



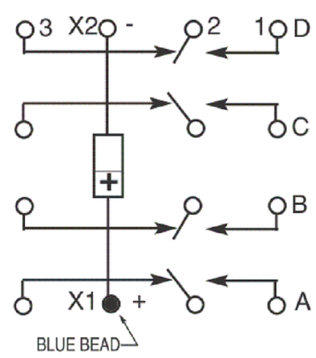
NOTE: Polarity must be observed with DC coil supply. Relay is polarized with a permanent magnet and will not operate or be damaged by reverse polarity.

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.

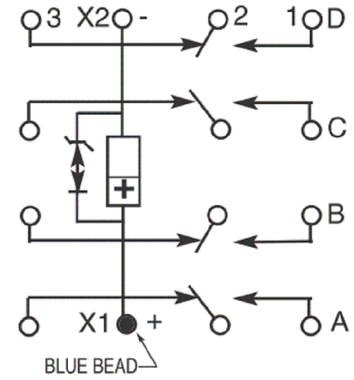
Terminal designations are for reference only and do not appear on the header.

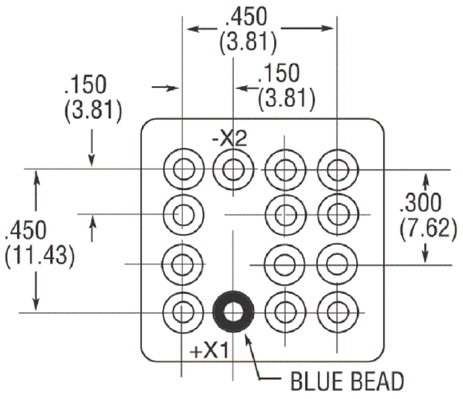
Terminal Wiring

DC Coils



DC Coils with Transient Suppression





TERMINAL VIEW

HOW TO ORDER

FCB-405-A Y 4

- **RELAY TYPE**
- **SOLDER HOOKS, DC COIL**
- **ENCLOSURE** (With Flanges)
- **COIL** (28 VDC With Transient Suppression).

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DIMENSIONS: INCHES

TOLERANCES UNLESS OTHERWISE SPECIFIED:

0 PLC	± –
1 PLC	± –
2 PLC	± –
3 PLC	± –
4 PLC	± –
ANGLES	± –

MATERIAL: –

FINISH: –

DWN	RV	28OCT2019
CHK	RV	28OCT2019
APVD	MB	28OCT2019
PRODUCT SPEC	—	
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WEIGHT	–	

TE Connectivity

NAME: C–FCB–405–SERIES – –

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A3	–	C–FCB–405–SERIES	—

CUSTOMER DRAWING

SCALE	SHEET	REV
NTS	2 OF 2	A

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity:

1-1617787-4