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P	LTR	DESCRIPTION	DATE	DWN	APVD
	A	INITIAL DRAWN	25OCT2019	RV	MB

### General Specifications

#### Temperature Rating —

-70°C TO + 125°C

#### Altitude — 300,000 Feet

#### Shock\* —

Z, Y, & V Enclosures —

200 g for 6 mS

W, X & M Enclosures —

100 g for 6 mS

#### Vibration, Sinusoidal\* —

Z, Y, & V Enclosures —

30 g 33-3000Hz

W, X & M Enclosures —

20 g 33-3000Hz

#### Vibration, Random\* —

Z, Y, & V Enclosures —

0.4 g<sup>2</sup>/Hz 50-2000Hz

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 — 1250 V rms

Coil to ground — 1000 V rms

At 80,000 Feet — 350 V rms

#### Insulation Resistance —

Initial (500 VDC) — 100 MΩ Min.

After Life or Environmental Tests — 50 MΩ Min.

#### Operate Time at Nominal Voltage —

DC Relays — 15 ms or less

AC Relays — 10 ms or less

#### Release Time at Nominal Voltage —

DC Relays — 15 ms or less

AC Relays — 50 ms or less

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

### Contact Rating — Amperes Ratings Are Continuous Duty

Type of Load	Life (Min.) Cycles x10 <sup>3</sup>	28 VDC		115VAC 400Hz		115/200VAC	115/200VAC
		Main	Aux.	Main	Aux.	400Hz-3Ø	60Hz-3Ø*
Resistive	50	25	2	25	2	25	2.5
Inductive	10	12	1	—	—	—	2.5
Inductive	20	—	—	15	1	15	—
Motor	50	10	—	10	—	10	2.0
Lamp	50	5	.5	5	.5	.5	1.0

\*60 Hz loads rated for 10,000 operations

**Overload Current** — 50 AMPS DC, 80 AMPS 400Hz

**Rupture Current** — 60 AMPS DC, 100 AMPS 400Hz

**Contact Make Bounce** — 1 MILLISECOND AT NOMINAL VOLTAGE

**Auxiliary Contact Bounce** — 4 MILLISECONDS MAX.

**Max. Contact Drop at 25 Amps** — INITIAL 0.150 VOLTS

**End of Life** — 0.175 VOLTS

#### Coil Data

Coil Code	Nominal Voltages	Freq. Hz	DC Res. AC Amps (B)	Over Temperature Range		
				Pickup or Below Volts	Dropout or Above Volts	Must Hold Voltage (C)
1	6	DC	18 Ω	4.5	0.3	2.5
2	12	DC	70 Ω	9.0	0.75	4.5
3	28	DC	290 Ω	18.0	1.5	7.0
4 (A)	28	DC	290 Ω	18.0	1.5	7.0
5	48	DC	865 Ω	32.0	2.5	14.0
6	28	400Hz	225 mA	22.0	1.25	10.0
7	28	50/400Hz	120 mA	22.0	1.25	10.0
8	115	400 Hz	40 mA	90.0	5.0	40.0
9	115	50/400 Hz	30 mA	95.0	5.0	40.0

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

B. DC COIL RESISTANCE ± 10% AT 25°C; AC COIL MAX. CURRENT AT NOMINAL VOLTAGE.

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 50/60HZ.

The Series FCAC-325 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:

**FCA-125** — 25 Ampere SPDT Relay

**FCA-325** — 25 Ampere 3PDT Relay

### Product Facts

- Hermetically Sealed
- All Welded Construction
- Balanced Force
- Permanent Magnet Drive
- Contacts — Silver Cadmium Oxide with Gold Plating
- Coils for DC, 50 to 400Hz and 400Hz AC
- Weight 2.89 ounces max. (82grams)

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN RV 25OCT2019	 TE Connectivity		
DIMENSIONS: INCHES		CHK RV 25OCT2019			
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD MB 25OCT2019	NAME C-FCAC-325-SERIES		
0 PLC ± -		PRODUCT SPEC	-		
1 PLC ± -		APPLICATION SPEC	-		
2 PLC ± -		SIZE	A3	CAGE CODE	-
3 PLC ± -		DRAWING NO	C-FCAC-325-SERIES		RESTRICTED TO
4 PLC ± -		WEIGHT	-		-
ANGLES ± -		CUSTOMER DRAWING			
FINISH -		SCALE	NTS	SHEET	1 OF 2
		REV	A		

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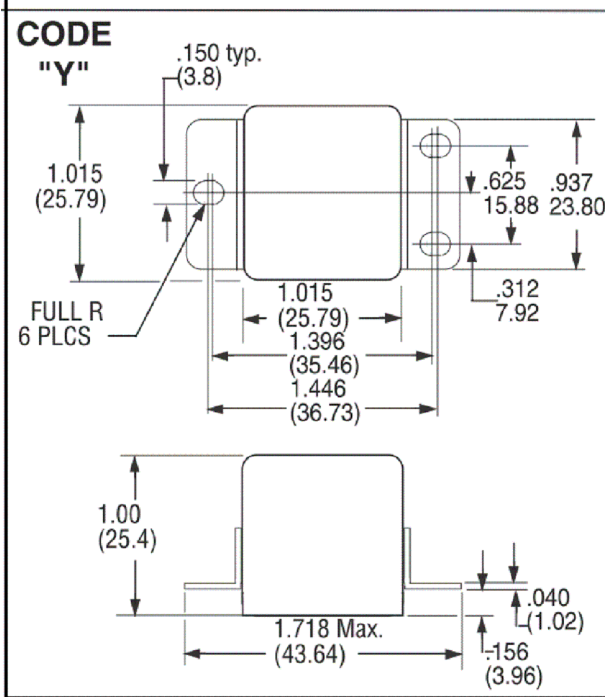
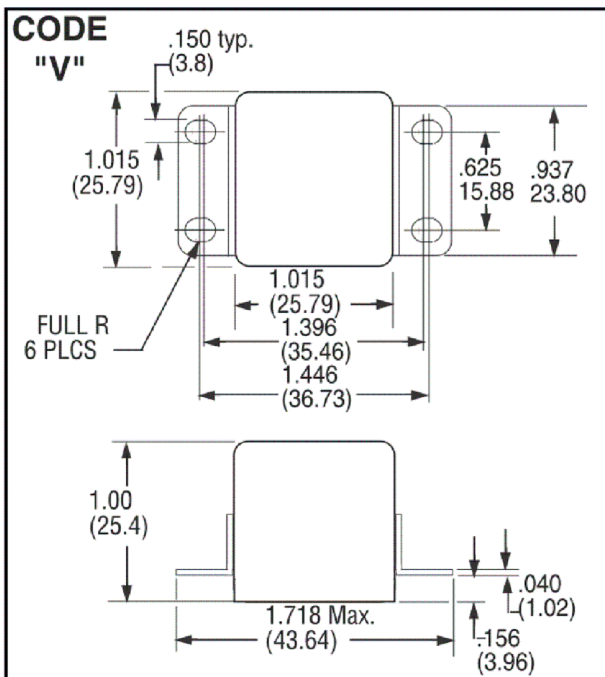
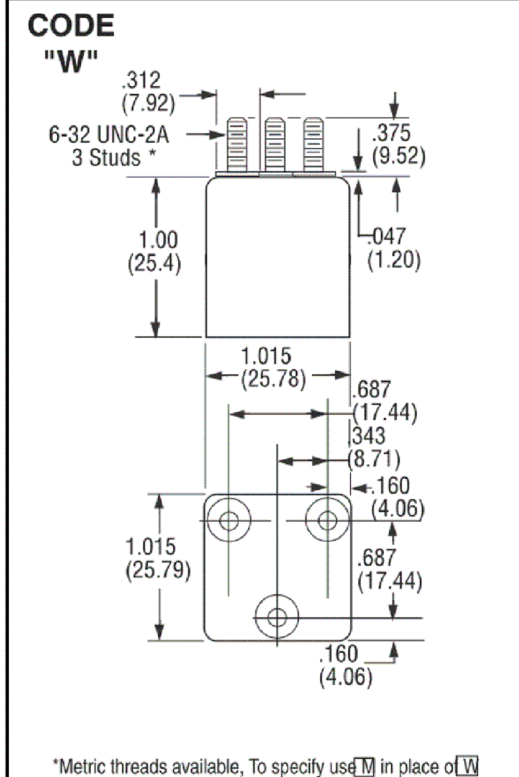
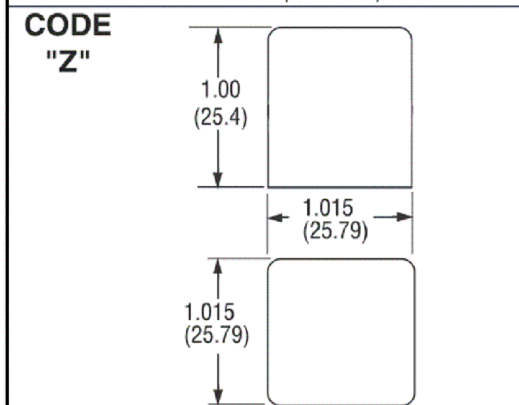
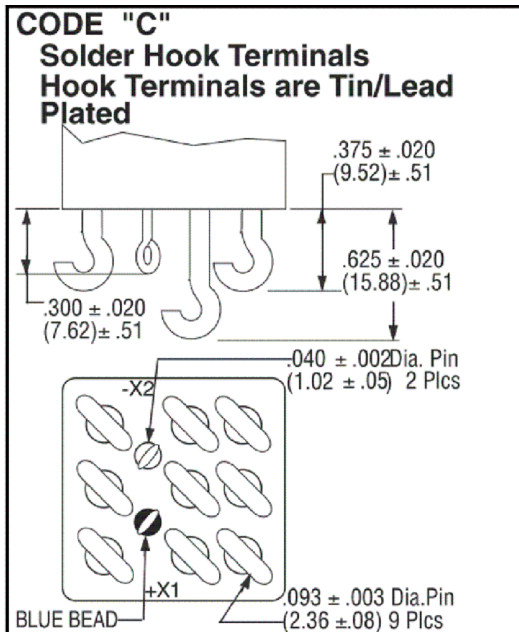
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P	LTR	DESCRIPTION	DATE	DWN	APVD
-	-	SEE SHEET 1	-	-	-

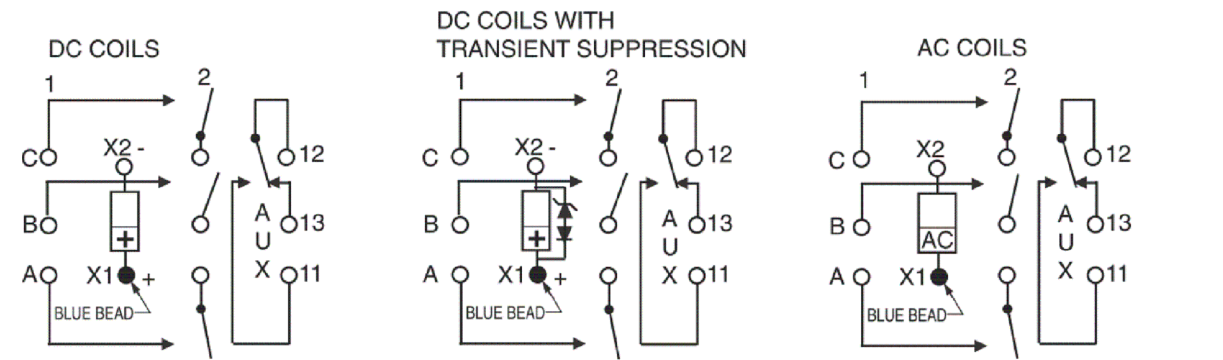
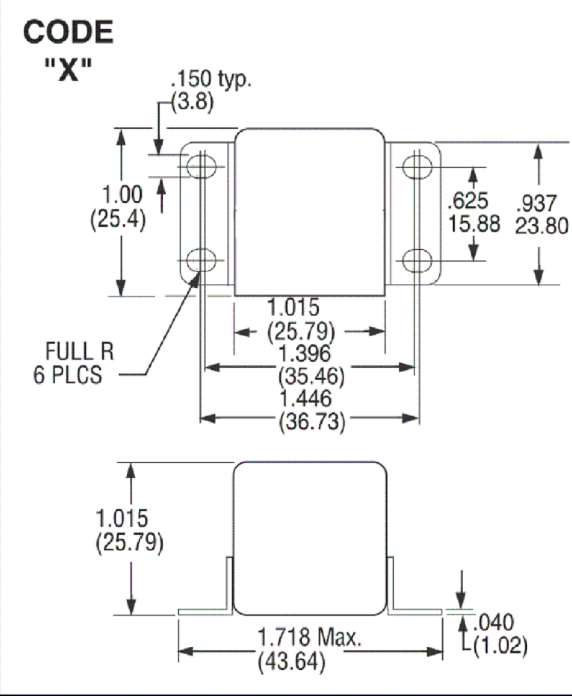


**ENCLOSURES**

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

Dimensions: Inches ± .010 (mm ± .25)

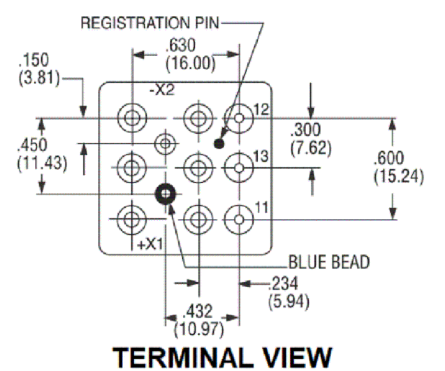
**For socket pin terminals: specify "Y" enclosures with DC coils and "V" enclosures with AC coils.**



**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).** \_\_\_\_\_

**FCAC-325-A Y 4**

**NOTE: Only DC coil models are QPL Approved**

ALL DIMENSIONS ARE IN INCHES(MM)

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DIMENSIONS: INCHES		CHK RV 25OCT2019			
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD MB 25OCT2019	PRODUCT SPEC		
0 PLC ± -		PRODUCT SPEC	APPLICATION SPEC		
1 PLC ± -		APVD MB	SIZE A3		
2 PLC ± -		PRODUCT SPEC	CAGE CODE -		
3 PLC ± -		APPLICATION SPEC	DRAWING NO C-FCAC-325-SERIES		
4 PLC ± -		APPLICATION SPEC	RESTRICTED TO -		
ANGLES ± -		APPLICATION SPEC	SCALE NTS		
MATERIAL -		FINISH -	SHEET 2 OF 2		
MATERIAL -		FINISH -	REV A		
MATERIAL -		FINISH -	CUSTOMER DRAWING		