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Specifications

Contact Data			
Contact Form1 Form X (SPST-NO-DM)			
Contact Rating in Amps (Continuous Duty)			
	Type of Load	Life (Min.) Cycles	28 Vdc
	Resistive	50,000	50
	Inductive (L/R=5ms)	20,000	20
	Motor	20,000	20
	None	100,000	—
Overload Current (Resistive)200 A, 50 cycles			
Max. Contact Drop at 10AInitial 30mV; After Life 175mV			
Operate Time at Nominal Voltage15ms			
Release Time15ms			
Bounce Time1ms			
Coil Data			
Coil Code	1	2	3
Nominal Operating Voltage (Vdc)	6	12	28
Maximum Operating Voltage (Vdc)	7.3	14.5	29
Maximum Pick-Up Voltage at +125°C	4.5	9	18
Maximum Pick-Up Voltage at +125°C, continuous current test (Vdc)	5.7	11.25	22.5
Drop-Out Voltage at OTR	0.3 – 2.5	0.75 – 4.5	1.5 – 7.0
Maximum Coil Current at +25°C (A)	.50	.26	.15
Back EMF Suppressed to (Vdc) (Max)	N/A	N/A	-42
Coil Resistance ±10%	18Ω	70Ω	290Ω

Specifications

Electrical Data	
Initial Insulation Resistance (note 1)	100 megohms, minimum, at 500Vdc, between each pin and case
Insulation Resistance After Life or Environmental Test (note 1)	50 megohms, minimum, at 500Vdc, between each pin and case
Dielectric Strength At Sea Level	
Contacts to Ground and Between Contacts	1,250Vrms, 60 Hz.
Coil to Ground	1,000Vrms, 60 Hz.
Dielectric Strength at 80,000 ft (25,000m), All Points (note 4)	500Vrms, 60 Hz
Environmental Data	
Ambient Temperature Range, Operating	-70°C to +125°C
Altitude	300,000 feet
Shock Resistance	50 G's, 11 ms.
Vibration Resistance, Sinusoidal	20 G's, 75-3000Hz.
Mechanical Data	
Approximate Weight	3.2 oz. (90g) Max.

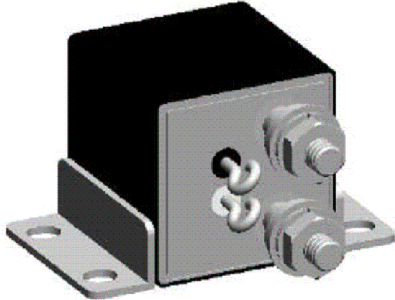
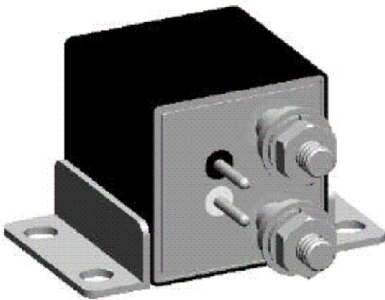
NOTES

1. All wired terminals must be connected together during this test. Dielectric withstanding voltage and insulation resistance are measured between all mutually insulated wired terminals and between all these terminals and case.

REVISIONS					
P	LTR	DESCRIPTION	DATE	DWN	APVD
	A	INITIAL RELEASE	26SEP2019	RV	BM

Product Facts

- Non-latching relay
- Balanced force design
- Corrosion protected metal enclosure
- All welded hermetically sealed enclosure occupies about 1 in³ (16.4 cm³)
- 1 Form X (SPST-NO-DM)
- 6, 12 and 28 Vdc coils
- Weight: 90 grams
- Designed and built in accordance to MIL-PRF-6106



The FCA-150 series 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 non-polar design.

1 Form X (SPST-NO-DM) configuration with main contacts rated 50 Amps.

How to Order


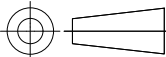
Typical Part Number

Series and Contact Arrangement:
FCA-150 = Relay with 1 Form X Main Contacts

Terminals (see drawings for details):
B = Solder Pin Coil Terminals, Stud Power Terminals
C = Solder Hook Coil Terminals, Stud Power Terminals
K = Terminal Block, Stud Power Terminals

Enclosure (see drawings for details):
R = Horizontal Flange Mount, Rotated
Y = Raised Vertical Flange Mount
U = Flush Vertical Flange Mount
X = Horizontal Flange Mount
Z = No Mount

Coil:
1 = 6Vdc nominal 2 = 12Vdc nominal 3 = 28Vdc nominal 4 = 28Vdc nominal, with back EMF suppression

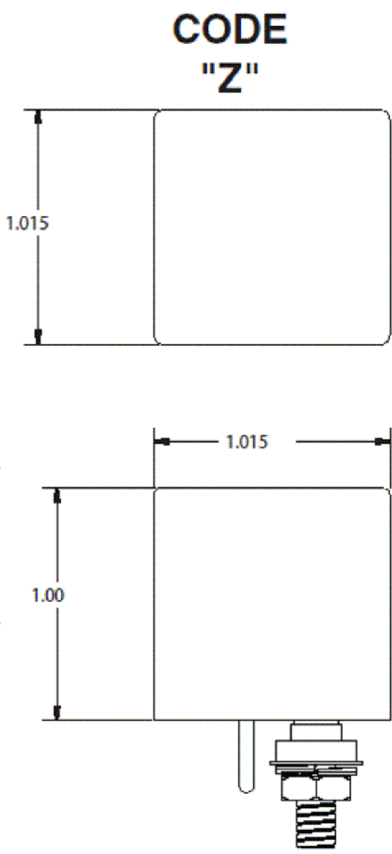
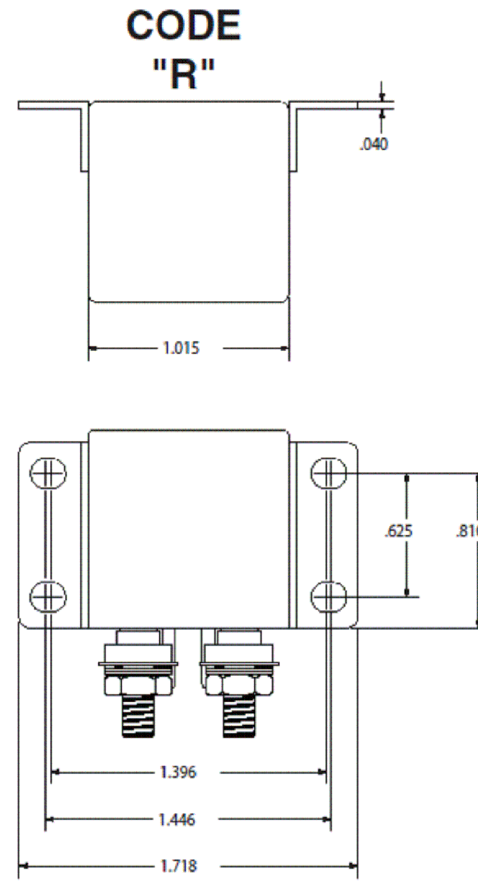
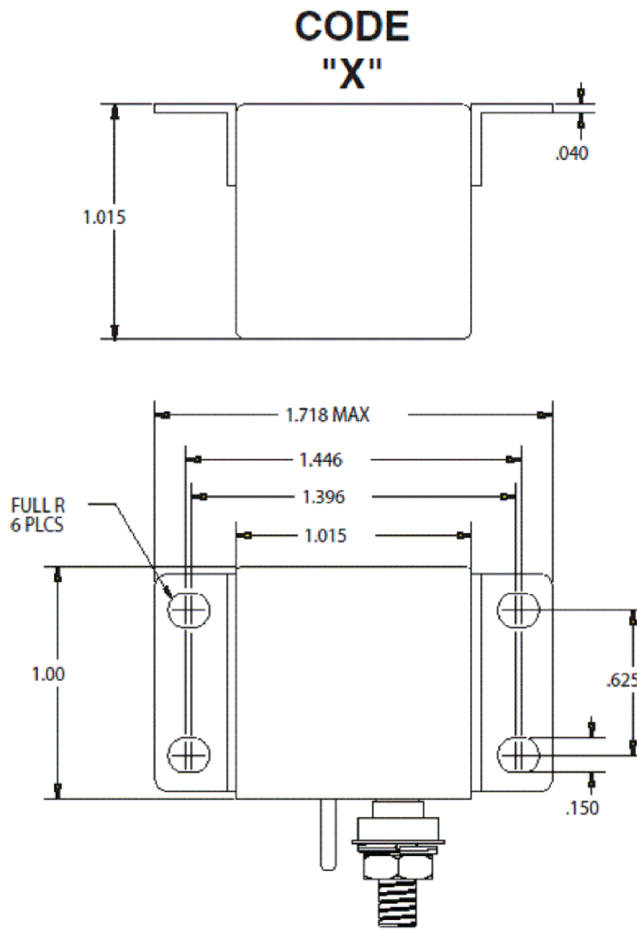
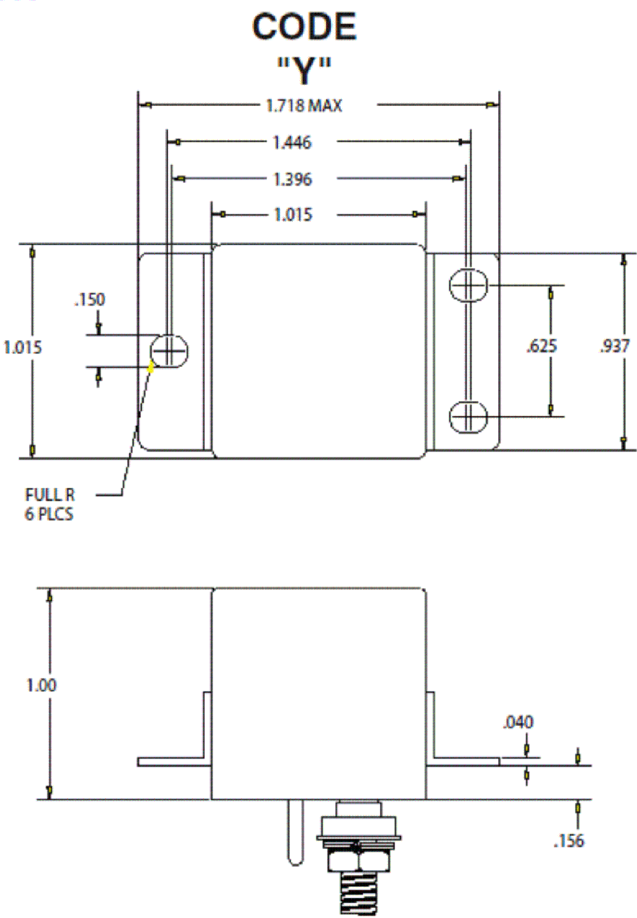
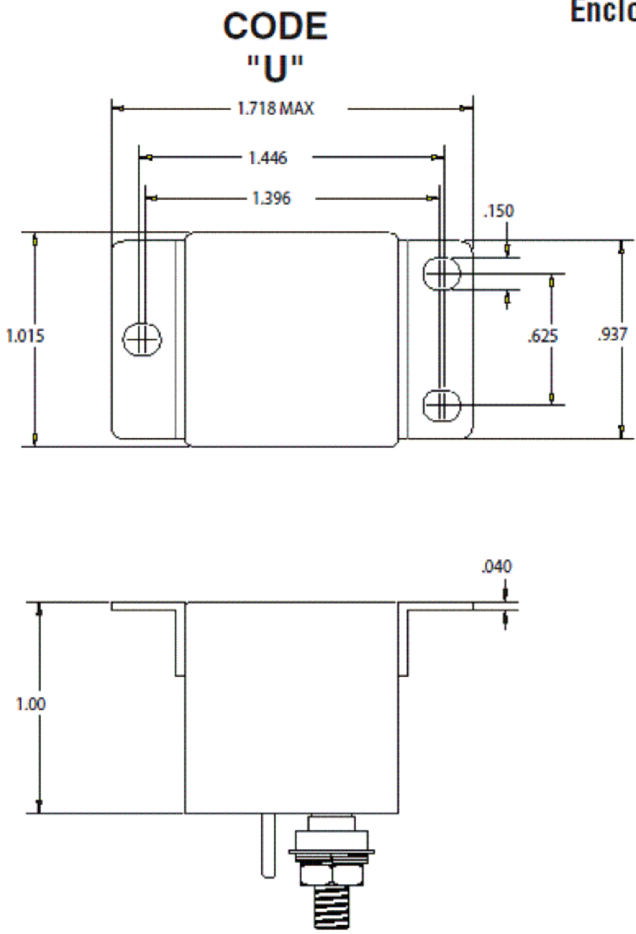
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		CHK RV 26SEP2019									
DIMENSIONS: INCHES		TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± - 1 PLC ± - 2 PLC ± - 3 PLC ± - 4 PLC ± - ANGLES ± -		APVD BM 26SEP2019			NAME				
				PRODUCT SPEC			FCA-150 SERIES				
				—			—				
				APPLICATION SPEC			—				
				—			—				
MATERIAL		FINISH		SIZE		CAGE CODE		DRAWING NO		RESTRICTED TO	
—		—		A3		—		C-FCA-150-SERIES		—	
CUSTOMER DRAWING						SCALE		SHEET		REV	
						NTS		1 OF 3		A	

REVISIONS					
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	—	SEE SHEET 1	—	—	—


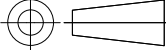
Outline Dimensions

The standard terminal types and enclosures are illustrated below with dimensions in inches ± 0.010 and (millimeters ±0.25).

Enclosures



ALL DIMENSIONS ARE IN INCHES

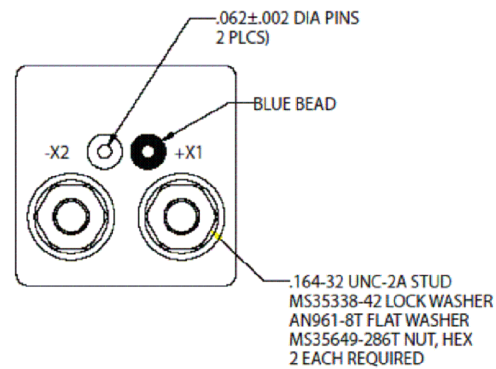
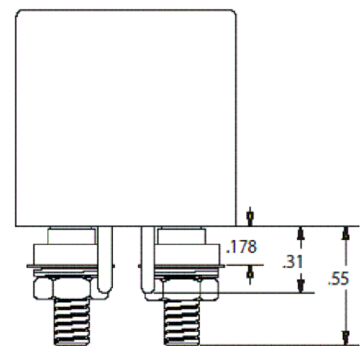
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		APPLICATION SPEC	-				
MATERIAL	FINISH	WEIGHT	SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO	
		-	A3	-	C-FCA-150-SERIES	-	
CUSTOMER DRAWING			SCALE	SHEET		REV	
			NTS	2 of 3		A	

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	—	SEE SHEET 1	—	—	—

Terminals

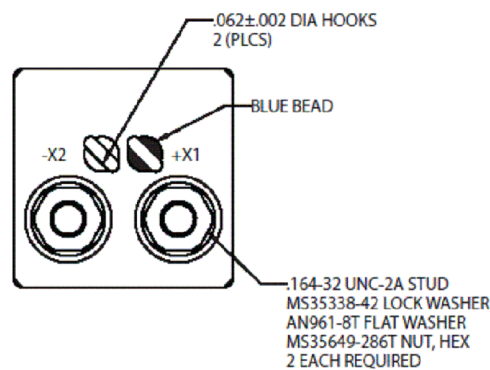
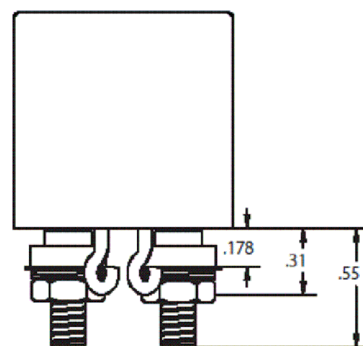
CODE “B”

Solder Pin Terminals
Tin/Lead Plated



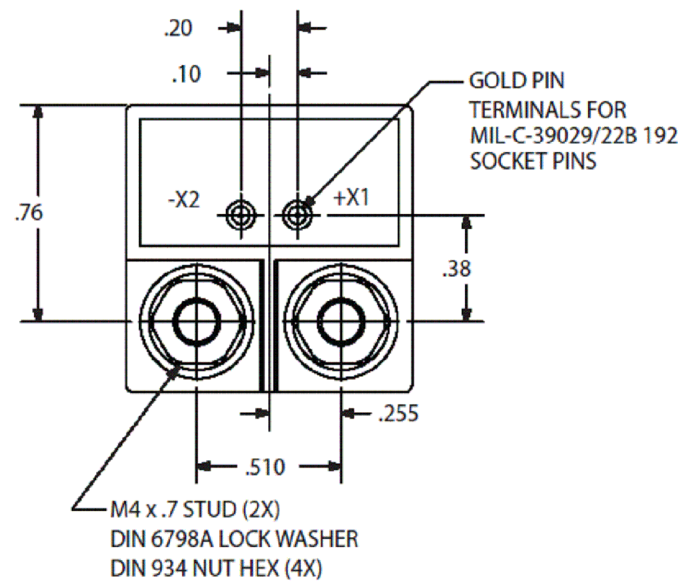
CODE “C”

Solder Hook Terminals
Tin/Lead Plated



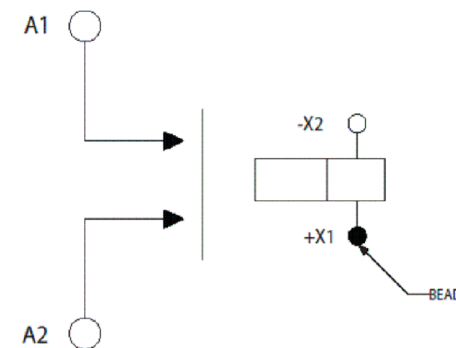
CODE “K”

Terminal Shield

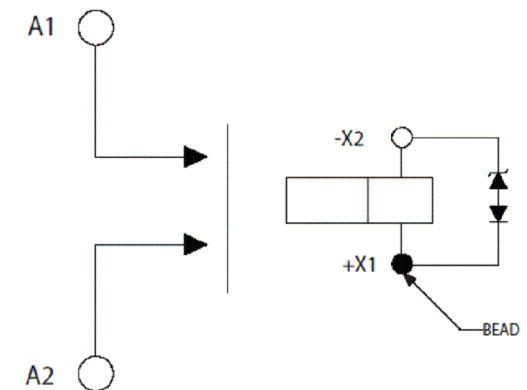


Terminal Wiring

DC Coils



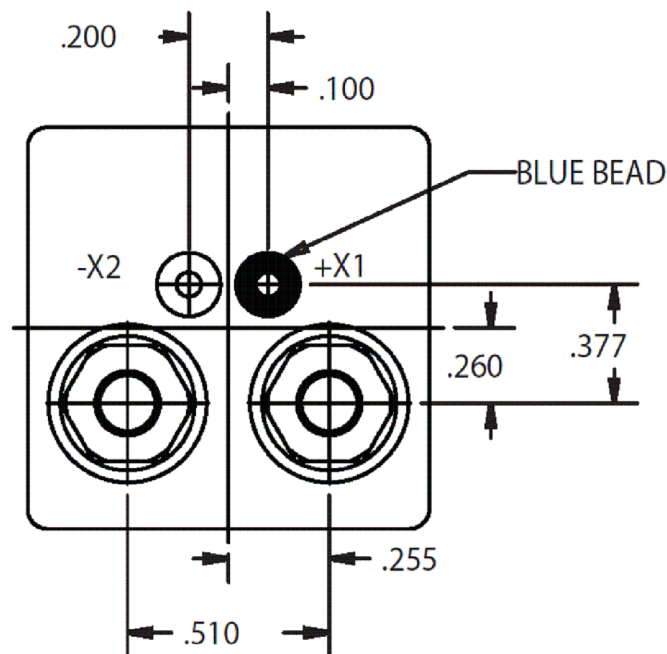
DC Coils with
Transient Suppression



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.


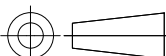
Diodes used in transient suppression and in AC rectifier circuits have peak inverse voltage rating of 600 VDC minimum. Zener diodes have a minimum rating of 1 watt.

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



TERMINAL VIEW

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		-		-			
		APPLICATION SPEC		-			
		-		-			
MATERIAL -	FINISH -	WEIGHT -		SIZE A3	CAGE CODE -	DRAWING NO C-FCA-150-SERIES	RESTRICTED TO -
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