REVISIONS

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

Specifications

Auxiliary Contact Data				
Contact Form	1 Form X (SPDT-NO-DM) with 1 Form C (SPDT) Auxiliary			
Contact Rating in Amps (Continuous Duty)				
Type of Load	Life (Min.) Cycles	28 Vdc	115 Vac 400Hz	
Resistive	50,000	50	50	
Inductive (L/R=5ms)	20,000	20	20	
Motor	20,000	20	20	
None	100,000	–	–	
Coil Data				
Coil Code	1	2	3	4(A)
Nominal Operating Voltage (Vdc)	6	12	28	28
Maximum Operating Voltage (Vdc)	7.3	14.5	29	29
Maximum Pick-Up Voltage at +125°C	4.5	9	18	18
Maximum Pick-Up Voltage at +125°C, continuous current test (Vdc)	5.7	11.25	22.5	22.5
Drop-Out Voltage at OTR	0.3 – 2.5	0.75 – 4.5	1.5 – 7.0	1.5 – 7.0
Maximum Coil Current at +25°C (mA)	.50	.26	.15	.15
Back EMF Suppressed to (Vdc) (max)	N/A	N/A	N/A	-42
Coil Resistance ±10%	18Ω	70Ω	290Ω	290Ω

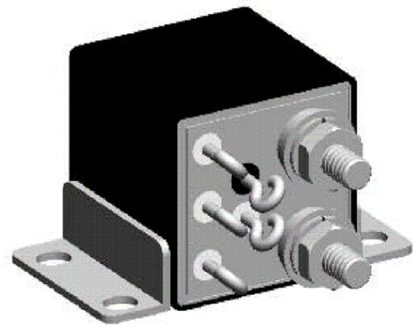
Specifications

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.

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 C (SPDT) auxiliary contact**
- **6, 12 and 28 Vdc coils**
- **Weight: 90 grams**
- **Designed and built in accordance to MIL-PRF-6106**

The FCAC-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.

A 1 form C (SPDT) auxiliary contact set rated 2 amps is available.

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

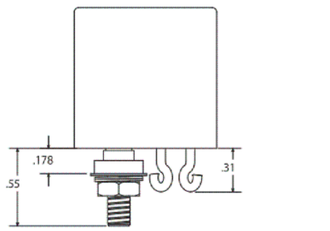
NAME C–FCAC–150–SERIES – –

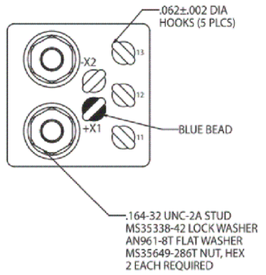
SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A3	–	C–FCAC–150–SERIES	–

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

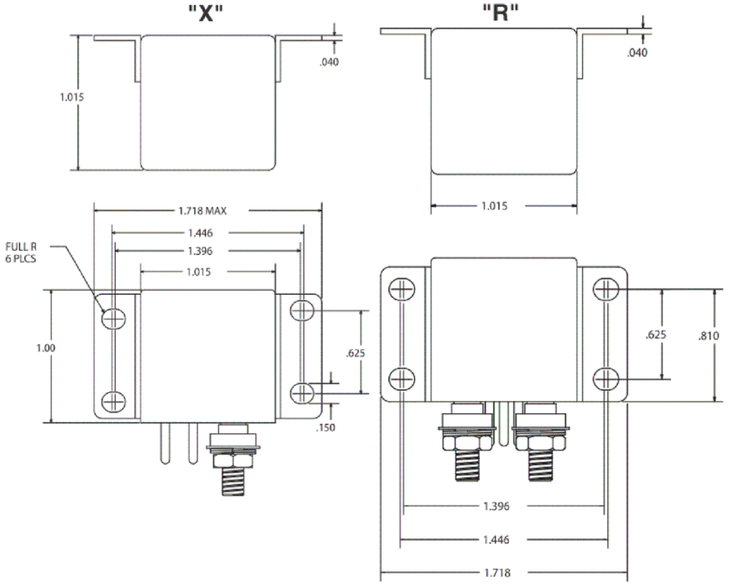
REVISIONS					
P	LTR	DESCRIPTION	DATE	DWN	APVD
	–	SEE SHEET 1	–	—	—

CODE "C"
Solder Hook
Tin/Lead Plated





CODE "X"



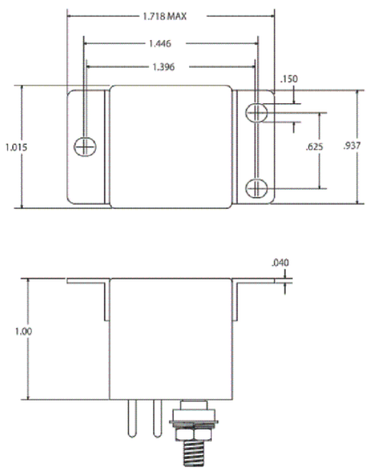
CODE "R"

Outline Dimensions

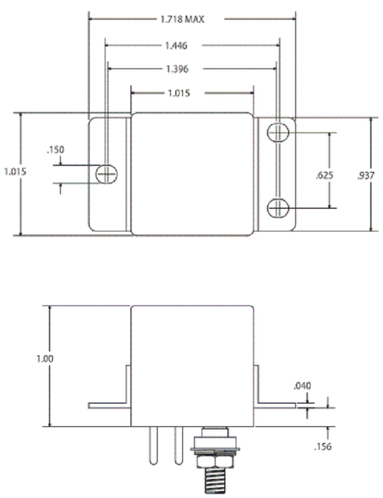
The standard terminal types and enclosures are illustrated below with dimensions in inches ± 0.010 and (millimeters ±0.25).

Enclosures

CODE "U"



CODE "Y"



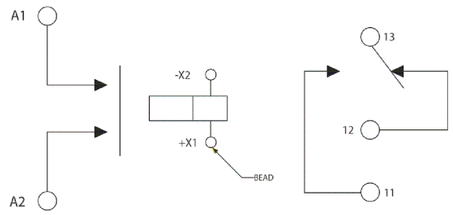
NOTE: Polarity must be observed with DC coil supply. Relay is polarized with a permanent magnet and will not operate or be damaged by reverse polarity.

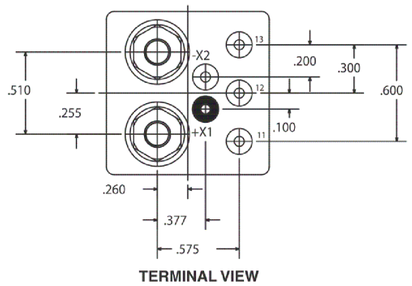
Diodes used in transient suppression and in AC rectifier circuits have peak inverse voltage rating of 600 VDC minimum. Zener diodes have a minimum rating of 1 watt.

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

Terminal Wiring

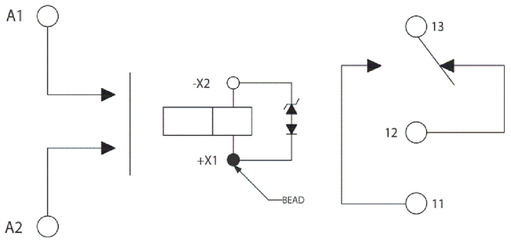
DC Coils





TERMINAL VIEW

DC Coils with Transient Suppression



How to Order

Typical Part Number **FCAC-150** **C** **Y** **3**

Series and Contact Arrangement:
FCAC-150 = Relay with 1 Form X Main Contacts, 1 Form C Aux. Contacts

Terminals (see drawings for details):

C = Solder Hook Coil Terminals, Stud Power Terminals

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

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

ALL DIMENSIONS ARE IN INCHES(MM)

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN RV 28OCT2019	TE Connectivity
DIMENSIONS: INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± – 1 PLC ± – 2 PLC ± – 3 PLC ± – 4 PLC ± – ANGLES ± –	CHK RV 28OCT2019	NAME C–FCAC–150–SERIES – –
		APVD MB 28OCT2019	
		PRODUCT SPEC –	SIZE A3 / CAGE CODE – / DRAWING NO C–FCAC–150–SERIES / RESTRICTED TO –
MATERIAL –	FINISH –	APPLICATION SPEC –	
		WEIGHT –	
CUSTOMER DRAWING			SCALE NTS / SHEET 2 OF 2 / REV A