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REVISIONS

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P	LTR	DESCRIPTION	DATE	DWN	APVD
	C	INITIAL DRAWN	17OCT2019	RV	MB

General Specifications

Temperature Rating —
-70°C TO +125°C

Altitude — 300,000 Feet

Shock* —

Z, Y, & X Enclosures —

200 g for 6 mS

W & M Enclosures (Stud Mtg.) —

100 g for 6 mS

Vibration, Sinusoidal* —

Z, Y, & X Enclosures —

30 g 33-3000Hz

W & M Enclosures (Stud Mtg.) —

20 g 33-3000Hz

Vibration, Random* —

Z, Y, & X Enclosures —

0.4 g²/Hz 50-2000Hz

W & M Enclosures (Stud Mtg.) —

0.2 g²/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 — 10 ms or less

AC Relays — 15 ms or less

Release Time at Nominal Voltage —

DC Relays — 10 ms or less

AC Relays — 50 ms or less

* Max. contact opening under vibration or shock 10 microseconds

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	20 Ω	4.5	0.3	2.5
2	12	DC	80 Ω	9.0	0.75	4.5
3	28	DC	320 Ω	18.0	1.5	7.0
4 (A)	28	DC	320 Ω	18.0	1.5	7.0
5	48	DC	920 Ω	32.0	2.5	14.0
6	28	400Hz	180 mA	22.0	1.25	10.0
7	28	50/400Hz	100 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.

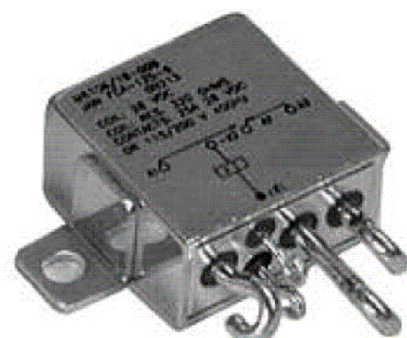
B. DC COIL RESISTANCE ± 10% AT 25°C; AC COIL MAX. CURRENT AT NOMINAL VOLTAGE.

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.

NOTE: Only DC Coil Models are QPL Approved.



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 1.6 ounces max. (45.4 grams)
- Qualified to M6106/19, M83536/36, /37

Contact Rating — Amperes Ratings Are Continuous Duty

Type of Load	Life (Min.) Cycles x 10 ³	28 VDC	115VAC 400Hz	115VAC 60Hz*
Resistive	50	25	25	10
Inductive	10	12	—	10
Inductive	20	—	15	—
Motor	50	10	10	8
Lamp	50	5	5	—

*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

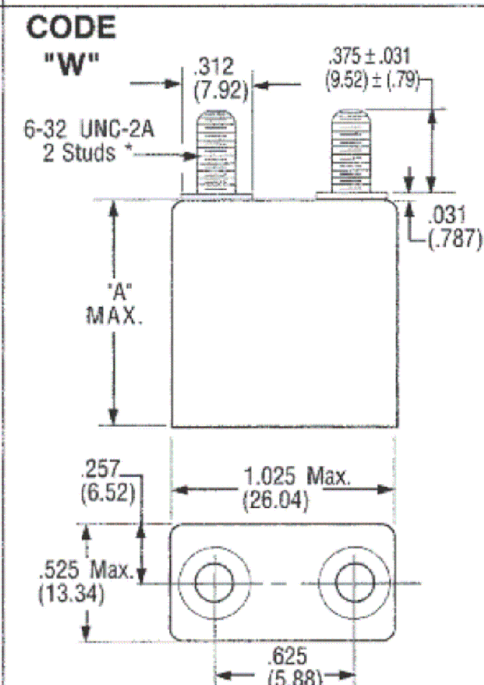
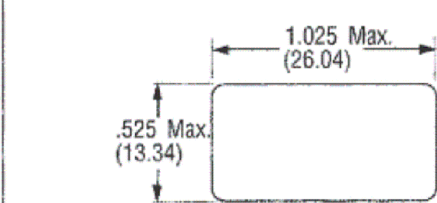
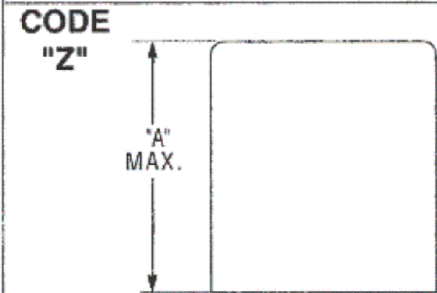
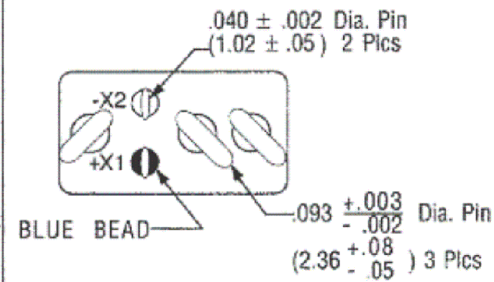
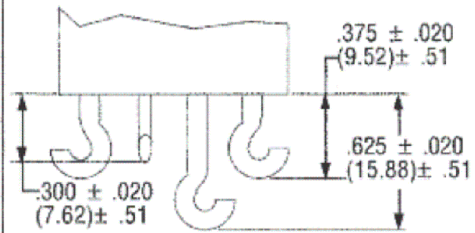
Max. Contact Drop at 25 Amps — INITIAL 0.150 VOLTS

End of Life — 0.175 VOLTS

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN	RV	17OCT2019	 TE Connectivity		
DIMENSIONS: INCHES		CHK	RV	17OCT2019			
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD	MB	17OCT2019	FCA-125-SERIES		
0 PLC ± -		PRODUCT SPEC			-		
1 PLC ± -		APPLICATION SPEC			-		
2 PLC ± -		SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO		
3 PLC ± -		A3	-	©-FCA-125-SERIES	-		
4 PLC ± -		WEIGHT			-		
ANGLES ± -		CUSTOMER DRAWING			SCALE	SHEET	REV
FINISH		-			NTS	1 OF 2	C

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

CODE "C"
Solder Hook Terminals
HOOK TERMINALS TIN/LEAD PLATED



*Metric threads available.
To specify use **M** in place of **W**

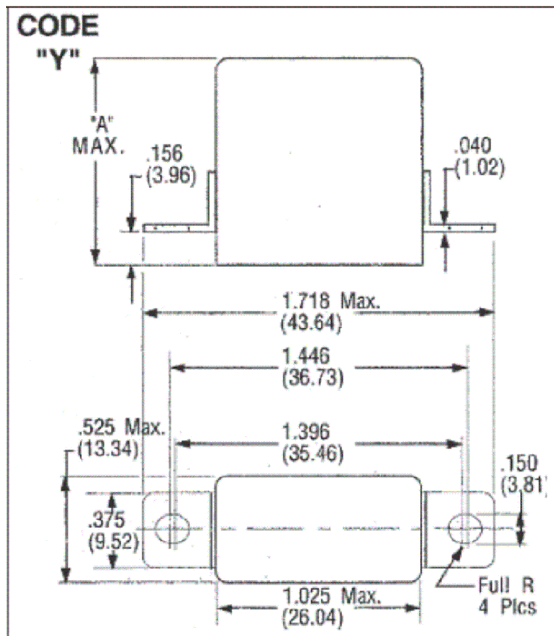
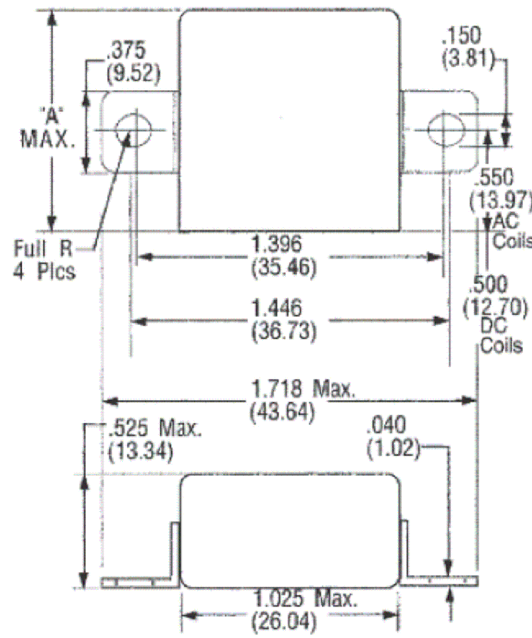
Enclosures

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

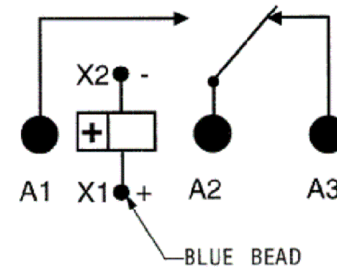
Dimensions: Inches ± .010 (mm ± .25)

"A" - AC Coils 1.125 in. (31.91) Max
DC Coils 1.010 in. (28.65) Max..

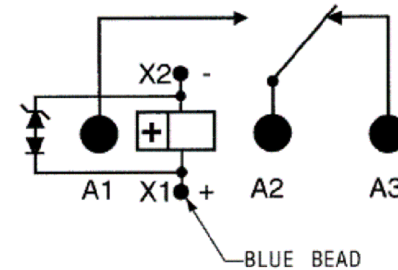
CODE "X"



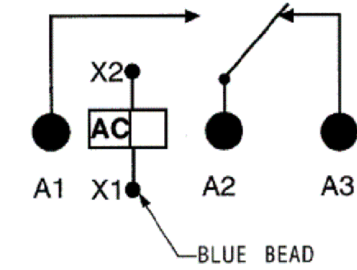
DC COILS



Terminal Wiring
DC COILS WITH TRANSIENT SUPPRESSION



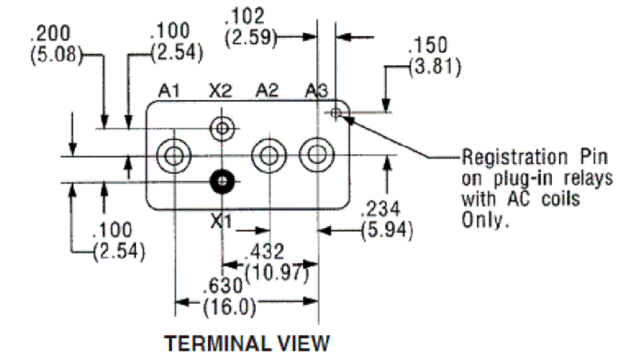
AC COILS



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.



TERMINAL VIEW

HOW TO ORDER

RELAY TYPE **FCA-125-A Y 4**

SOLDER HOOKS, DC COIL

ENCLOSURE (With Flanges)

COIL (28 VDC With Transient Suppression).

NOTE: Only DC coil models are QPL Approved

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<table border="1"> <tr><td>0 PLC</td><td>± -</td></tr> <tr><td>1 PLC</td><td>± -</td></tr> <tr><td>2 PLC</td><td>± -</td></tr> <tr><td>3 PLC</td><td>± -</td></tr> <tr><td>4 PLC</td><td>± -</td></tr> <tr><td>ANGLES</td><td>± -</td></tr> </table>		0 PLC	± -	1 PLC	± -	2 PLC	± -	3 PLC	± -	4 PLC	± -	ANGLES	± -	PRODUCT SPEC	SIZE		
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CUSTOMER DRAWING			SCALE	SHEET	REV												
			NTS	2 OF 2	C												

Mouser Electronics

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[FCA-125-34](#) [FCA-125-3604L](#) [M83536/36-004L](#)