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REVISIONS

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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.

Contact Rating — Amperes
Ratings Are Continuous Duty

Type of Load	Life (Min.) Cycles x 10 ³	28 VDC	115VAC 400Hz	115/200VAC 3Ø	
				400Hz	60Hz*
Resistive	100	10	10	10	2.5
Inductive	20	8	8	8	2.5
Motor	100	4	4	4	2.0
Lamp	100	2	2	2	1

*60 Hz loads rated for 10,000 operations

Overload Current — 40 AMPS DC, 60 AMPS 400Hz

Rupture Current — 50 AMPS DC, 80 AMPS 400Hz

Contact Make Bounce —1 MILLISECOND AT NOMINAL VOLTAGE

Max. Contact Drop at 10 Amps — INITIAL 0.100 VOLTS

End of Life — 0.125 VOLTS

The Series FCA-210 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-410 — 10 Ampere 4PDT Relay
FCA-610 — 10 Ampere 6 PDT Relay
Available:
FCA-215 — 15 Ampere DPDT Relay, Has the same specifications as the FCA-210 except is rated at 15 amps. (Commercial Only)

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DIMENSIONS:
INCHES

MATERIAL

-

TOLERANCES UNLESS OTHERWISE SPECIFIED:

0 PLC ± -

1 PLC ± -

2 PLC ± -

3 PLC ± -

4 PLC ± -

ANGLES ± -

FINISH -

DWN RV 18OCT2019

CHK RV 18OCT2019

APVD MB 18OCT2019

PRODUCT SPEC

APPLICATION SPEC

WEIGHT -

CUSTOMER DRAWING

TE Connectivity

NAME

FCA-210-SERIES

SIZE A3

CAGE CODE -

DRAWING NO. ©=FCA-210-SERIES

RESTRICTED TO -

SCALE NTS

SHEET 1 OF 2

REV B

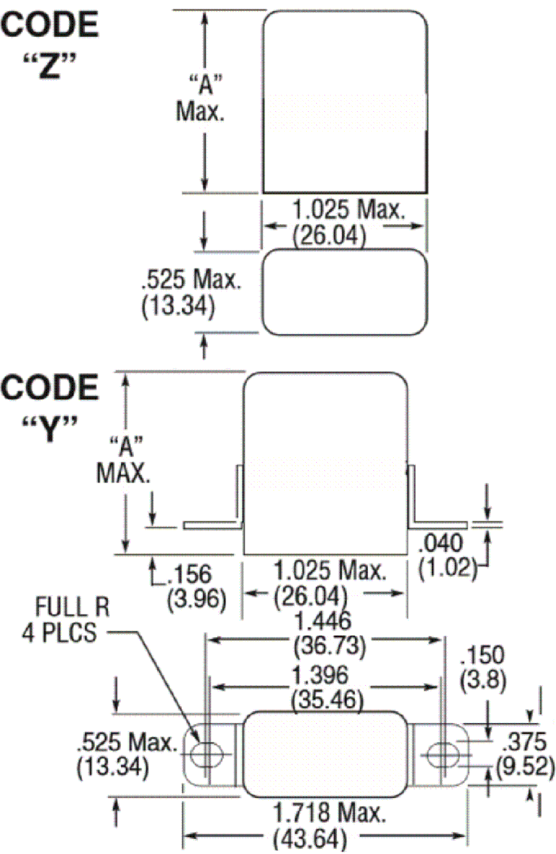
1470-19 (1/15)

Enclosures

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

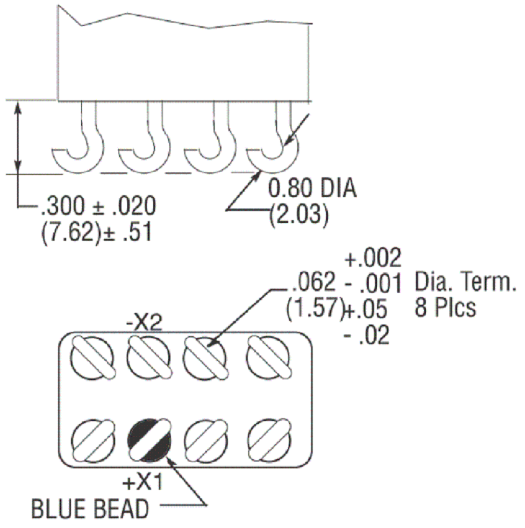
Dimensions: Inches ± .010 (mm ± .25)

“A” AC Coils 1.125 in. (28.57) Max.
DC Coils 1.010 in. (25.65) Max.

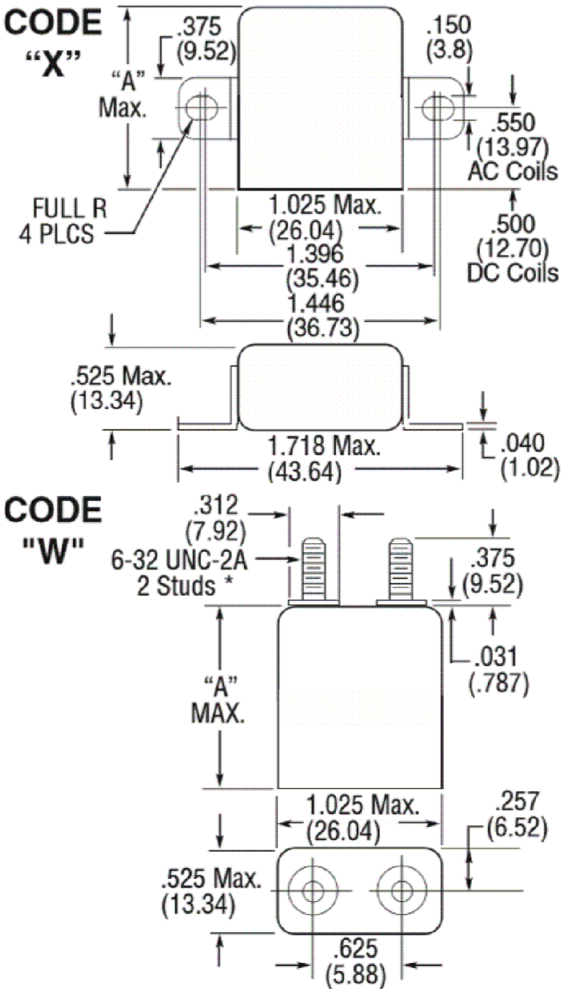


CODE “C” Solder Hook

HOOK TERMINALS TIN/LEAD PLATED

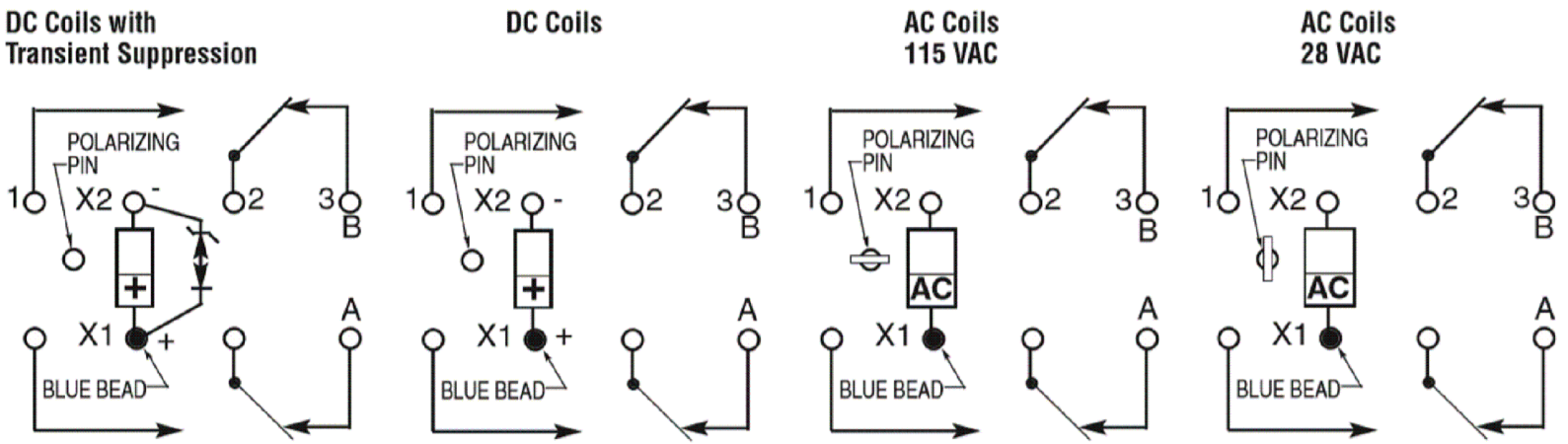


ALL DIMENSIONS ARE IN INCHES(MM)



*Metric threads available, To specify use [M] in place of [W]

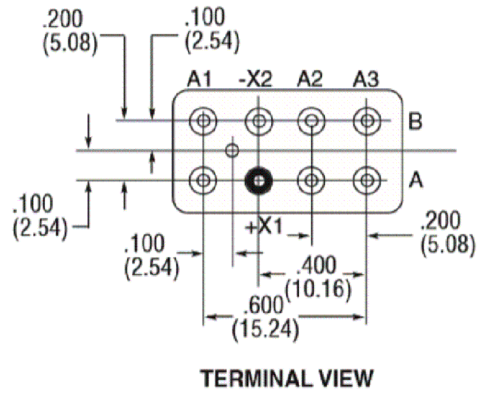
Terminal Wiring



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). _____

FCA-215
FCA-210-A Y 4

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		CHK RV 18OCT2019			
DIMENSIONS: INCHES		APVD MB 18OCT2019	NAME FCA-210-SERIES		
		PRODUCT SPEC	—		
		APPLICATION SPEC	—		
MATERIAL		WEIGHT	SIZE A3	CAGE CODE	DRAWING NO
—		—	—	—	—
CUSTOMER DRAWING			SCALE NTS	SHEET 2 of 2	REV B

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