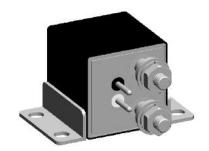
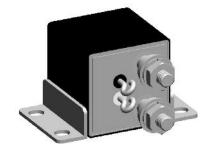


FCA-150 Series, 50 Amps, 1PST/NO (DM) Relay

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.

Specifications

| opecilications | | | | | |
|--|--------------------------------|-------------|-----------|-----------|--|
| Contact Data | | | | | |
| Contact Form | 1 Form X (SPST-NO-DM) | | | | |
| Contact Rating in Amps (Continuous Duty) | | | | | |
| | Type of | Life (Min.) | | | |
| | Load | 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 10A | Initial 30mV; After Life 175mV | | | | |
| Operate Time at Nominal Voltage | 15ms | | | | |
| Release Time | 15ms | | | | |
| Bounce Time | 1ms | | | | |
| Coil Data | | | | | |
| Coil Code | 1 | 2 | 3 | 4 | |
| 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 (A) | .50 | .26 | .15 | .15 | |
| Back EMF Suppressed to (Vdc) (Max) | N/A | N/A | N/A | -42 | |
| Coil Resistance ±10% | 18Ω | 70Ω | 290Ω | 290Ω | |



FCA-150 Series, 50 Amps, 1PST/NO (DM) Relay (Continued)

Specifications

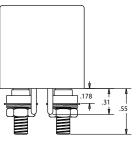
| 100 megohms, minimum, at 500Vdc, between each pin and case | | |
|--|--|--|
| 50 megohms, minimum, at 500Vdc, between each pin and case | | |
| | | |
| 1,250Vrms, 60 Hz. | | |
| 1,000Vrms, 60 Hz. | | |
| 500Vrms, 60 Hz | | |
| | | |
| -70°C to +125°C | | |
| 300,000 feet | | |
| 50 G's, 11 ms. | | |
| 20 G's, 75-3000Hz. | | |
| | | |
| 3.2 oz. (90g) Max. | | |
| | | |

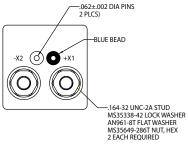
NOTES

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.

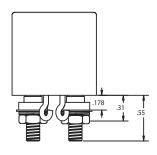
Terminals

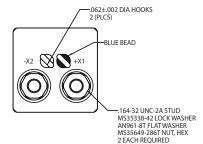
CODE "B" Solder Pin Terminals Tin/Lead Plated



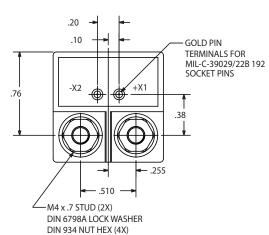


CODE "C" Solder Hook Terminals Tin/Lead Plated





CODE "K" Terminal Shield



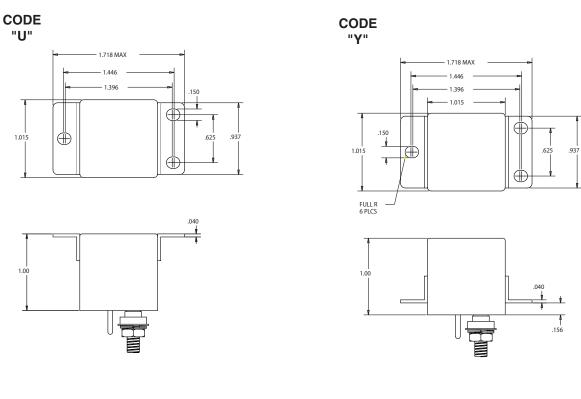


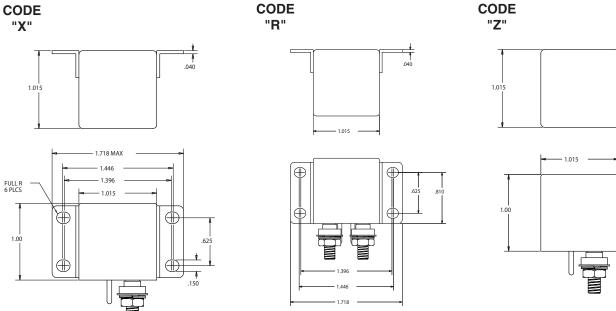
FCA-150 Series, 50 Amps, 1PST/NO (DM) Relay (Continued)

Outline Dimensions

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

Enclosures





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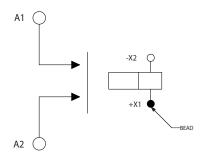
to change.



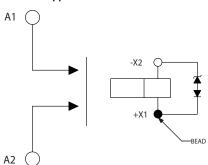
FCA-150 Series, 50 Amps, 1PST/NO (DM) Relay (Continued)

Terminal Wiring

DC Coils



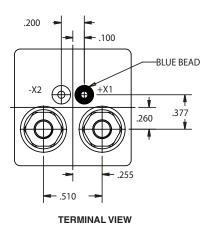
DC Coils with Transient Suppression



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.



How to Order

