

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	A	INITIAL RELEASE	18OCT2019	RV	MB

**RUGGED**

- Hermetically sealed
- Corrosion protected metal can
- All welded construction. No solder sealing

**SPACE AND WEIGHT SAVING**

- 1.5 inch cube enclosure
- 0.452 lbs

**CAPABLE**

- Excellent for switching harsh inductive, motor, and lamp loads
- -70°C to +125°C temperature range
- 80,000 feet altitude rating

**VERSATILE**

- 28 Vdc or 115 Vac coils
- Solder hook or terminal block configurations

**QUALIFIED**

- Qualified to MS27418 specifications
- Higher current ratings than standard M83536 mid-range relays

**APPLICATIONS**

- Launch Systems
- Power Distribution
- Fuel Pumps
- Guidance and Navigation Systems
- Aircraft Galley/Cabin Equipment
- Weapons Systems
- Ground Support Equipment

**MECHANICAL/ENVIRONMENTAL**

- **Temperature Range:** -70°C to +125°C
- **Altitude:** 80,000 feet
- **Sinusoidal Vibration:** 10 g/5 to 1000 Hz
- **Shock:** 50 g/11 ms

**ELECTRICAL**

- **Dielectric Strength at Sea Level:**  
**Coil to Case:** 1250 V<sub>rms</sub>  
**All Other Points:** 1500 V<sub>rms</sub>
- **Dielectric Strength at 80,000 ft (25,000 m):** 500 V<sub>rms</sub> (all points)
- **Insulation Resistance at 500 Vdc:**  
**Initial:** 100 MΩ min.  
**After Life or Environmental Test:** 50 MΩ min.
- **Contact Voltage Drop at Nominal Current:**  
**Initial Value:** 150 mV max.  
**After Life:** 175 mV max.

**OPERATIONAL**

- **Operate Time at Nominal Voltage:**  
**AC:** 25 ms max.  
**DC:** 20 ms max.
- **Release Time at Nominal Voltage:**  
**AC:** 50 ms max.  
**DC:** 10 ms max.
- **Bounce Time at Nominal Voltage:** 2 ms max.

**COIL CHARACTERISTICS**

CODE	115 Vac 50/60 Hz	115 Vac 400 Hz	28 Vdc	28 Vdc (Suppressed)
Nominal operating voltage	115	115	28	28
Maximum operating voltage	122	122	32	32
Maximum pick-up voltage over temperature range	95	95	18	18
Maximum pick-up voltage over temperature range (Continuous Current test)	108	108	22.5	22.5
Drop-out voltage over temperature range	5.0	5.0	1.5	1.5
Coil current at +25° C (amperes)	.06	.055	-	-
Coil Resistance - DC Coils (*)	-	-	160	160
Back emf Suppresses to (Vdc)	-	-	-	42


**Contact Characteristics**

Load Type	Life Cycles	28 Vdc	Current Rating (A)			
			115 Vac, 1 Phase Power		115/200 Vac, 3 Phase Power	
			400 Hz	50/60 Hz	400 Hz	50/60 Hz
Resistive	50,000	25	25	25	25	25
Inductive	10,000	15	25	25	25	25
Motor	50,000	20	20	12	20	12
Lamp	50,000	10	10	10	10	10
Mechanical Life, Reduced Current	200,000	6.3	6.3	6.3	6.3	6.3

**Part Numbers**

Coil	Terminal	Mounting	Mil Spec	MS Part No.	Comm1 Part No.
28 Vdc	Solder Hook	Stud	MS27418-1B	FC-325-2	FC-325-CW3
	Screw	Bracket	MS27418-2B	FC-325-5	FC-325-SY3
28 Vdc (Suppressed)	Solder Hook	Stud	MS27418-1D	FC-325-7	FC-325-CW4
	Screw	Bracket	MS27418-2D	FC-325-8	FC-325-SY4
115 Vac, 50/60 Hz	Solder Hook	Stud	MS27418-1C	FC-325-3	FC-325-CW9
	Screw	Bracket	MS27418-2C	FC-325-6	FC-325-SY9
115 Vac, 400 Hz	Solder Hook	Stud	MS27418-1A	FC-325-1	FC-325-CW8
	Screw	Bracket	MS27418-2A	FC-325-4	FC-325-SY8

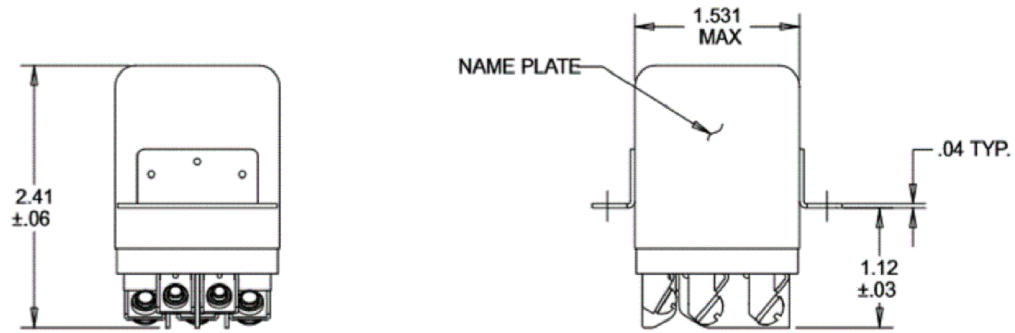
Custom configurations are available. Consult TE.

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN RV 18OCT2019	 TE Connectivity			
DIMENSIONS: INCHES		CHK RV 18OCT2019				
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD MB 18OCT2019	NAME FC-325-SERIES			
0 PLC ± - 1 PLC ± - 2 PLC ± - 3 PLC ± - 4 PLC ± - ANGLES ± -		PRODUCT SPEC -	-			
MATERIAL		APPLICATION SPEC -	SIZE A3	CAGE CODE -	DRAWING NO G-FC-325-SERIES	RESTRICTED TO -
FINISH		WEIGHT -	CUSTOMER DRAWING		SCALE NTS	SHEET 1 OF 2
					REV A	

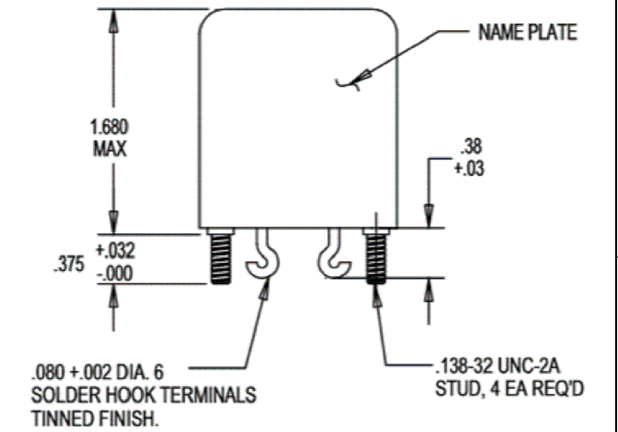


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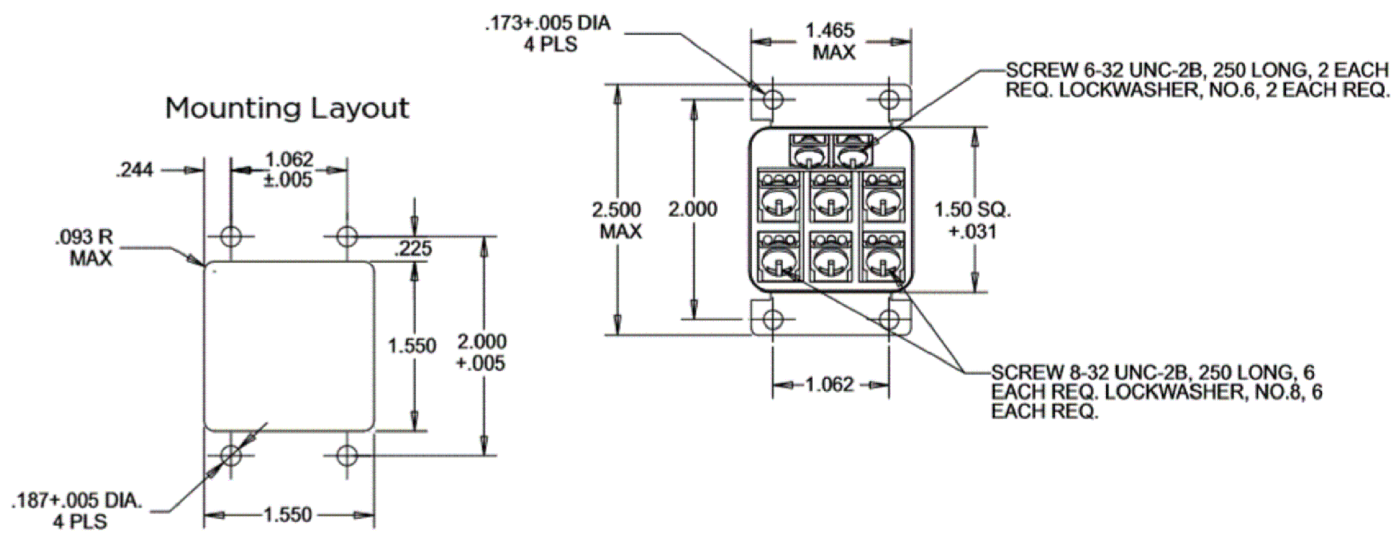
**Screw Terminals**  
(Shown with Mounting Bracket)



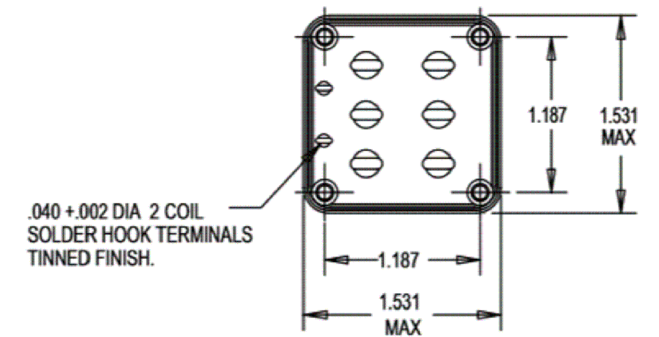
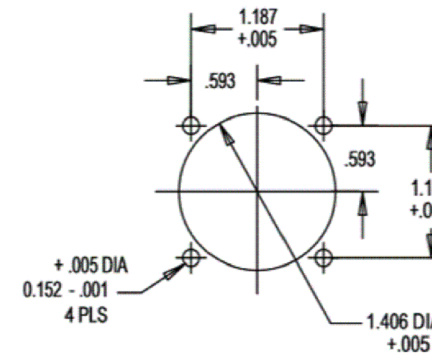
**Dimensions**  
**Solder Hook Terminals**  
(Shown with Mounting Studs)



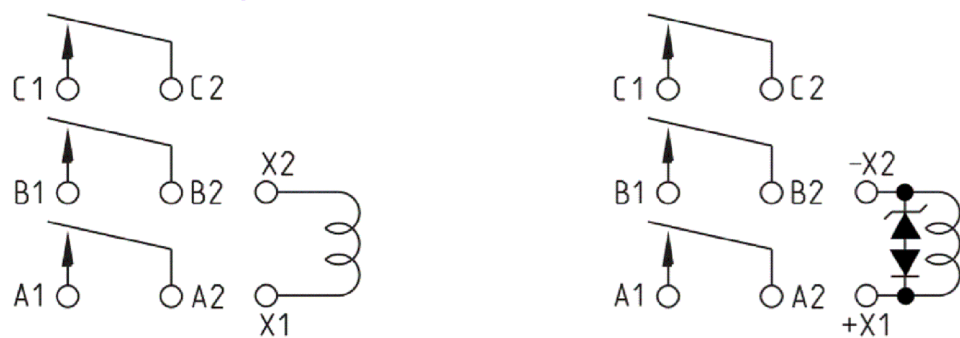
**Mounting Layout**



Tolerances are ±.010 unless otherwise noted.



**Circuit Diagram**



DC Nonsuppressed and AC Coils

DC Suppressed Coils

ALL DIMENSIONS ARE IN INCHES

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DIMENSIONS: INCHES		CHK	RV	18OCT2019		FC-325-SERIES		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD	MD	18OCT2019		-		
		PRODUCT SPEC		-	-			
MATERIAL		APPLICATION SPEC		-	SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
-		FINISH		-	A3	-	FC-325-SERIES	-
CUSTOMER DRAWING					SCALE	NTS	SHEET	2 OF 2
					REV	A		