

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	A	INITIAL RELEASE	03DEC2019	RV	MB

SF5/SF6 Coil Data

Nom. Coil Voltage (Vdc)	Nom. Current (mA)	Coil Resistance in Ohms ± 10% @ 25°C	Pickup Current (mA) @ 25°C	Nom. Coil Power (mW) @ 25°C	Coil Desig.
1.8	90.0	20	45.0	162	A
9.0	18.0	500	9.0	162	E
12.6	12.6	1,000	6.5	159	F
16.5	11.0	1,500	5.2	182	G
18.0	9.0	2,000	4.5	162	H
20.0	8.0	2,500	4.0	160	J
26.5	5.3	5,000	2.8	140	W
36.0	4.5	8,000	2.3	162	L
40.0	4.0	10,000	2.0	160	Y

SF5A Coil Data

Nom. Coil Voltage (Vdc)	Nom. Current (mA)	Coil Resistance in Ohms ± 10% @ 25°C	Pickup Current (mA) @ 25°C	Nom. Coil Power (mW) @ 25°C	Coil Desig.
2.8	140.0	20	65.0	392	A
4.0	80.0	50	41.6	320	B
12.0	24.0	500	12.5	288	E
18.0	18.0	1,000	9.3	324	F
26.5	10.6	2,500	5.6	281	J
40.0	8.0	5,000	4.0	320	W

Operating Characteristics

Operate Time —

15 ms max. (SF)

Release Time —

10 ms max. (SF)

Contact Bounce — 2 ms max.

Dielectric Withstanding Voltage —

Between Open Contacts —

500 Vrms 60 Hz

Between Adjacent Contacts —

1,000 Vrms 60 Hz

Between Contacts and Coil —

1,000 Vrms 60 Hz

Insulation Resistance —

10,000 megohms min @ 500 Vdc

Environmental Characteristics

Temperature Range —

-65°C to +125°C

Weight —

0.7 oz. max. (SF 6)

1.1 oz. max. (SF/SF 5A)

Vibration Resistance —

Standard —

15 G's, 10 to 2000 Hz (SF)

QPL —

20 G's, 10 to 2000 Hz

Shock Resistance —

100 G's, 6 ±1 ms

QPL Equivalent —

MIL-R-5757/13 (SF only)

Electrical Characteristics

Contact Arrangement —

2 Form C

Contact Material —

Stationary —

Bifurcated hardened silver alloy

Moveable —

Gold plated hardened alloy

Contact Resistance —

Before Life — 50 milliohms max.

(measured at 10 mA @ 6 Vdc)

After Life — 100 milliohms max.

(measured @ 2 mA @ 28 Vdc)

Mechanical Life Expectancy —

50 million operations

Coil Voltage —

1.8 to 40 Vdc (SF)

2.8 to 40 Vdc (SFSA)

Coil Power — 1.5 watts max. @ 25°C

Duty Cycle — Continuous

Pick-up Voltage — Approximately

50% of nominal coil voltage

Pick-up Sensitivity —

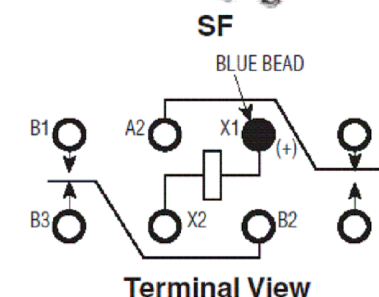
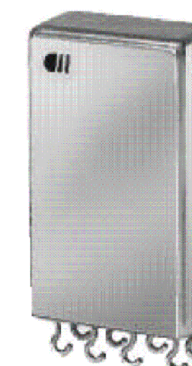
40 mW (SF)

80 mW (SF5A)

Product Facts

- Hermetically sealed
- Up to 5 amps switching
- High shock & vibration ratings
- Optional terminals & mounting options
- Excellent RF switching

SF, SF5A
Two Pole Full Size
Crystal-Can Relay
FW Qualified to
MIL-R-5757/10



THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN RV 03DEC2019	TE Connectivity		
		CHK RV 03DEC2019			
DIMENSIONS: INCHES		APVD MB 03DEC2019	NAME SF5,SF6,SF5A-SERIES		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		PRODUCT SPEC	-		
0 PLC ± -		APPLICATION SPEC	-		
1 PLC ± -		WEIGHT	SIZE A3	CAGE CODE -	DRAWING NO C-SF5,SF6,SF5A-SERIES
2 PLC ± -		MATERIAL -	RESTRICTED TO -		
3 PLC ± -					
4 PLC ± -		FINISH -	SCALE NTS	SHEET 1 OF 2	REV A
ANGLES ± -		CUSTOMER DRAWING			

THIS DRAWING IS UNPUBLISHED.

RELEASED FOR PUBLICATION

REVISIONS

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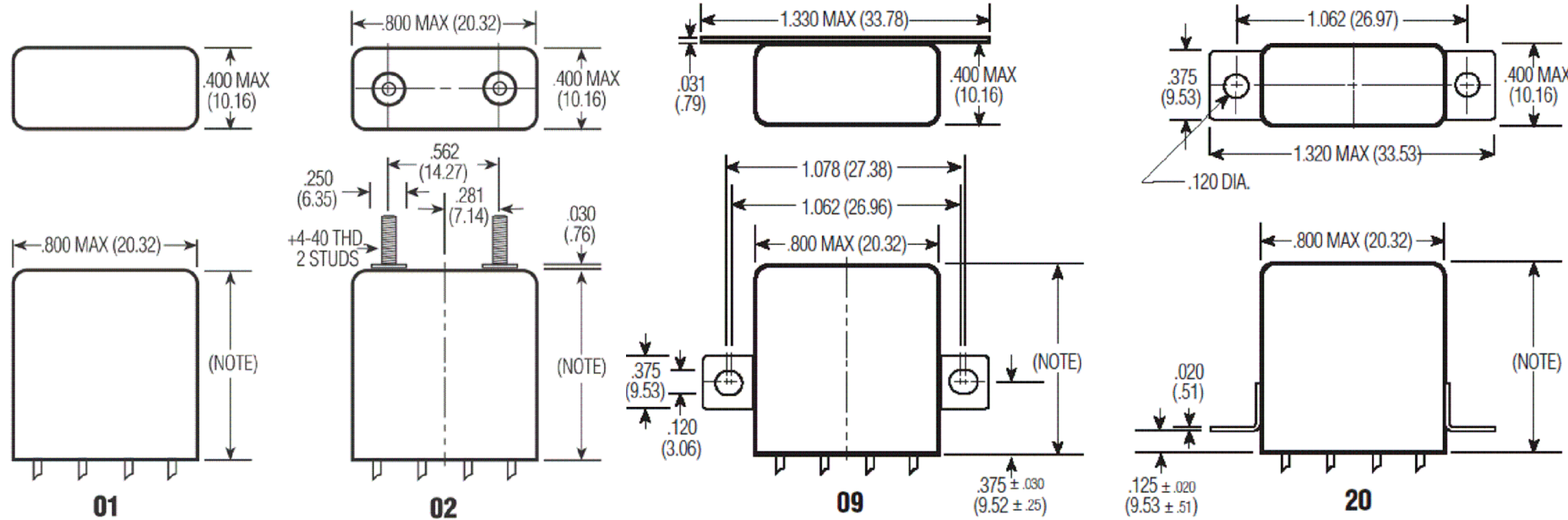
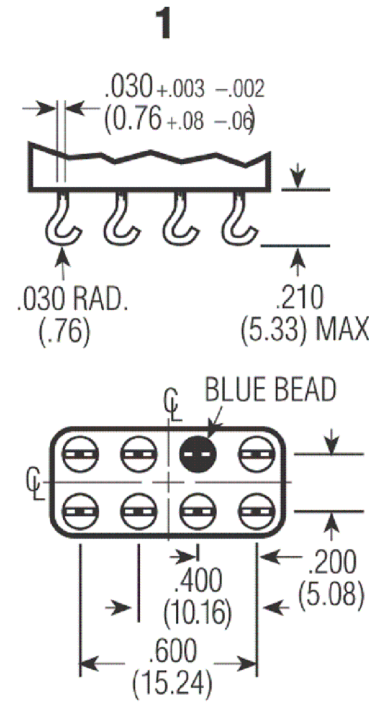
P	LTR	DESCRIPTION	DATE	DWN	APVD
-	-	SEE SHEET 1	-	-	-

RF Performance

Frequency (MHz)	RF Losses (dB)	VSWR	Isolation (dB)
100	0.1	1.17:1	40
250	0.2	1.18:1	33
500	0.3	1.19:1	28
750	0.4	1.19:1	25
1,000	0.4	1.19:1	23

Contact Ratings

Contact Load	Type	Operations Min.
5 A @ 28 Vdc (FW5A/SF5A)	Resistive	100,000
3 A @ 28 Vdc (FW)	Resistive	100,000
2 A @ 28 Vdc (SF)	Resistive	100,000
1 A @ 115 Vac, 60 Hz & 400 Hz (FW)	Resistive	100,000
0.3 A @ 115 Vac, 60 Hz & 400 Hz (SF)	Resistive	100,000
1 A @ 28 Vdc	Inductive (200 mH)	100,000
0.1 A @ 28 Vdc	Lamp	100,000
10 µA @ 50 mVdc	Low Level	1,000,000
75 WATTS @ 50 MHz (FW)	RF	10,000,000



Specifying a Part Number Example:

Type	Series	Terminals	Mountings	Coils	Features
SF	5	1	20	W	00
SF5A	5	1	20	W	00
SF	6	1	20	W	00

NOTE:
 SF6 = .900 (22.86) Max.
 SF5/SF5A5 = 1.281 (32.54) Max.

ALL DIMENSIONS ARE IN INCHES(MM)

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		PRODUCT SPEC	-			
MATERIAL		APPLICATION SPEC	-			
FINISH		WEIGHT	SIZE A3	CAGE CODE -	DRAWING NO C-SF5,SF6,SF5A-SERIES	RESTRICTED TO -
		CUSTOMER DRAWING	SCALE NTS	SHEET 2 OF 2	REV A	