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P	LTR	DESCRIPTION	DATE	DWN	APVD
	A	INITIAL RELEASE	04NOV2019	RV	MB

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 —

6.3 to 110 Vdc (FW, FWSA)
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 —

250 mW (FW, FWSA)
40 mW (SF)
80 mW (SF5A)

FW, FW5A Coil Data

Nom. Coil Voltage (Vdc)	Coil Resistance in Ohms ±10% @ 25°C	Pickup Voltage Vdc (Max.) @ 25°C	Pickup Voltage Vdc (Max.) @ 125°C	Drop-out Voltage Vdc (Min.) @ 25°C	Drop-out Voltage Vdc (Min.) @ -65°C	Nom. Coil Power (W) @ 25°C	Max. Coil Voltage	Coil Desig.
6.3	35	3.2	4.4	0.35	0.23	1.13	7.9	A
12.6	200	6.8	9.4	0.74	0.49	.79	15.8	D
17.6	340	8.9	12.3	0.97	0.64	.91	22.0	E
26.5	675	13.5	18.7	1.47	0.96	1.04	33.1	G
32.0	975	15.5	21.5	1.69	1.1	1.05	40.0	H
48.0	2,450	25.0	34.7	2.73	1.8	.94	60.0	L
56.0	3,150	30.0	41.6	3.27	2.1	1.00	70.0	M
75.0	5,000	38.0	52.7	4.14	2.7	1.13	93.8	N
110.0	9,100	51.0	70.7	5.56	3.6	1.33	137.5	R

Operating Characteristics

Operate Time —

15 ms max. (SF)
5 ms (FW, FWSA))
6 ms max. (MIL-R-5757/10)

Release Time —

10 ms max. (SF)
5 ms max. (FW, FWSA)
6 ms max. (MIL-R-5757/10)

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 —

0.6 oz. max. (FW, FWSA)
0.7 oz. max. (SF 6)
1.1 oz. max. (SF/SF 5A)

Vibration Resistance —

Standard —
20 G's, 10 to 2000 Hz (FW, FWSA)
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 Approval —

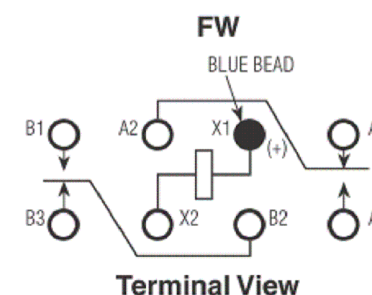
MIL-R-5757/10 (FW only)

QPL Equivalent —

MIL-R-5757/13 (SF only)

FW, FW5A Two Pole Full Size Crystal-Can Relay

FW Qualified to MIL-R-5757/10



Product Facts

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

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN RV	04NOV2019	TE Connectivity	
		CHK RV	04NOV2019		
		APVD MB	04NOV2019	NAME	
		PRODUCT SPEC		C-FW-SERIES	
		APPLICATION SPEC		-	
		WEIGHT		-	
MATERIAL		FINISH		SIZE	RESTRICTED TO
				A3	-
				CAGE CODE	DRAWING NO
				-	C-FW-SERIES
				SCALE	SHEET
				NTS	1 OF 2
				REV	A

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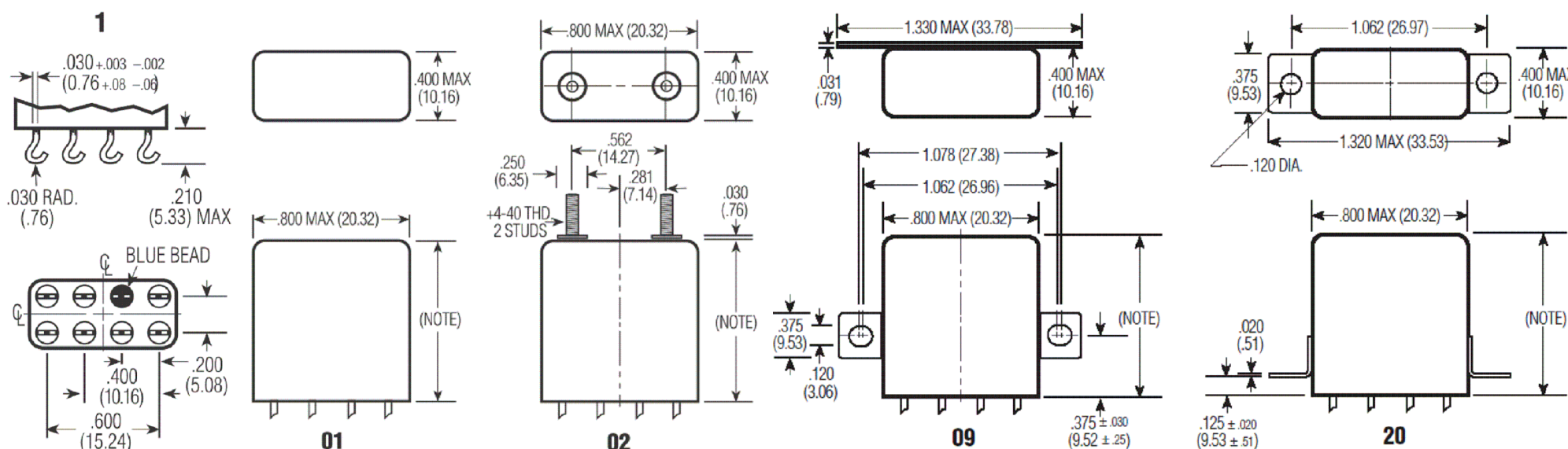
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P	LTR	DESCRIPTION	DATE	DWN	APVD
-	-	SEE SHEET 1	-	-	-

MOUNTING STYLE



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
FW	1	1	20	G	00

NOTE:
FW/FW5A = .875 (22.23) Max.

ALL DIMENSIONS ARE IN INCHES(MM)

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN RV 04NOV2019	TE Connectivity														
DIMENSIONS: INCHES		CHK RV 04NOV2019				NAME C-FW-SERIES											
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD MB 04NOV2019	PRODUCT SPEC -														
<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	± -	APPLICATION SPEC -	SIZE CAGE CODE DRAWING NO RESTRICTED TO		
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MATERIAL -		WEIGHT -	A3 - C-FW-SERIES														
CUSTOMER DRAWING			SCALE NTS	SHEET 2 OF 2	REV A												