

- Up to 8kVDC Isolation
- 6A Carry Current (up to 30MHz)
- Excellent RF Performance
- Ideal for Antenna Tuning Units
- Form A/B Contact Configuration
- Customising Facility

FRD12000 Series Screened. 8kV, 6A

The FRD12000 series was one of Crydom's first RF reed relay designs. With 8kV (DC) withstand voltage and 6A (30MHz) carry current capability, the FRD12000 series has satisfied countless HF radio system specifications over the years, finding applications in commercial maritime (GMDSS) equipment and military HF radio units worldwide.

CONTACT	UNITS	CONDITIONS	FRD12015	FRD12021	FRD12014	FRD12049
Action (form A, B or Latching)			A	B	A	B
Switching Voltage	V	DC max	20	20	20	20
Switching Current	A	DC max	1	1	1	1
Carry Current	A	RMS max	6	6	6	6
Isolation	kV	DC max	8	8	8	8
Capacitance	pF	coil/screen gnd	0.4	0.6	0.4	0.6
Lifetime	operations	dry switching	10 ⁹	10 ⁹	10 ⁹	10 ⁹
Contact Resistance	mOhms	maximum (typical)	50 (15)	50 (15)	50 (15)	50 (15)
Insulation Resistance	Ohms	minimum (typical)	10 ¹⁰ (10 ¹³)	10 ¹⁰ (10 ¹³)	10 ¹⁰ (10 ¹³)	10 ¹⁰ (10 ¹³)
ESR at 4.5A, 30MHz	mOhms	typical	100	150	100	150

COIL at 20°C

Nominal Working Voltage	VDC		24	12	12	24
Must Operate	VDC	max	15	8	8	14
Must Release	VDC	min	2	2	2	4
Nominal Resistance	ohms	+/-10%	1000	380	340	1500
RF Screening			Part	-	Part	-
RF Screening Connection		pin position	1 & 4		1 & 4	
Coil Connections		pin position	2 & 3	2 & 3	2 & 3	2 & 3

RELAY

Operate time (including bounce)	ms		2	3	3	3
Release time	ms		1	2	1	2
Isolation contact to all						
other terminals	kV	DC max	10	10	10	10
Isolation coil to screen	kV	DC max	0.5	N/A	0.5	N/A
Capacitance contact to						
all other terminals	pF	contacts open	2.0	2.5	2.0	2.5

ENVIRONMENTAL

Storage temperature range	°C				-55 to +125	
Operating temperature range	°C	Limited current*			-40 to +85	
Shock	g	11ms 1/2 sine pk			100	
Bump	g	6ms 1/2 sine pk			40	
Vibration	g	10- 500Hz			10	

*see graphical data

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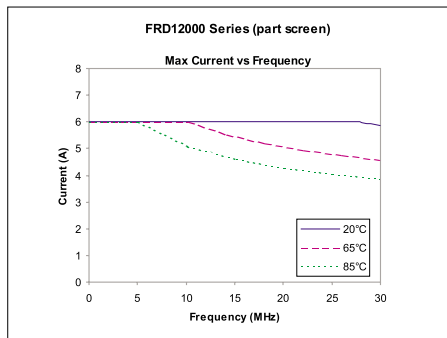
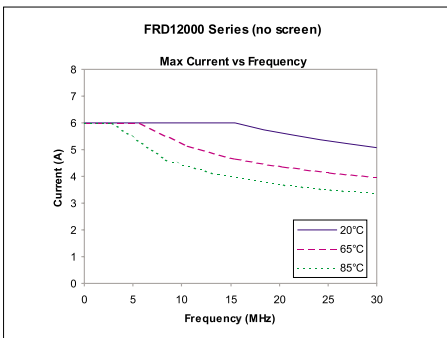
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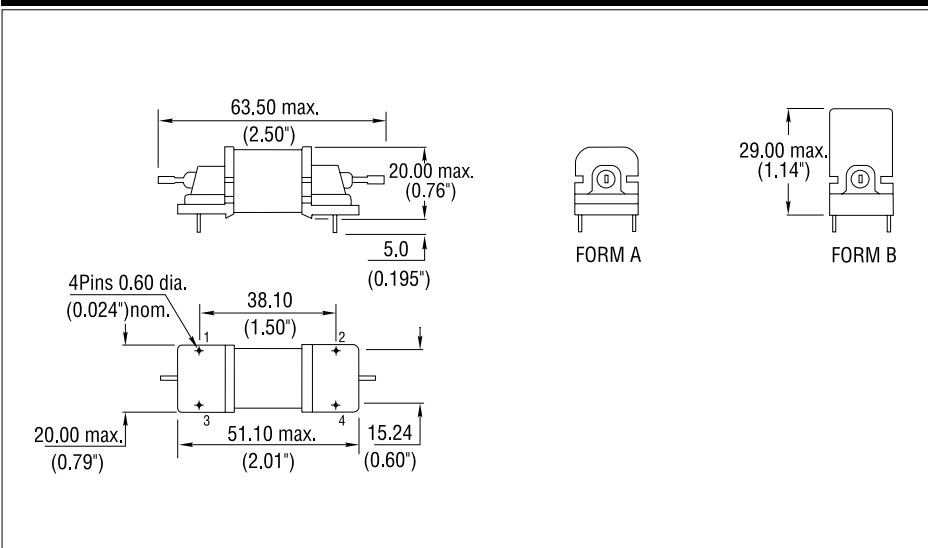
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Available with either 12 or 24V coils, in both form A and B contact configurations, this proven design is fully approved to MIL standards of bump, shock and vibration and features one of Crydom's in-house manufactured, high vacuum reed switches for unsurpassed RF performance and reliability.

Offering a cost effective alternative to vacuum ceramic relays, the FRD12000 Series RF Reed Relay has a greater lifetime, imperative for frequency hopping systems. As well as HF radios, the FRD12000 Series has also found applications in electromedical, sonar and test equipment, which require high isolation and inherent reliability.



MECHANICAL



*radio frequency
reed relays*

