



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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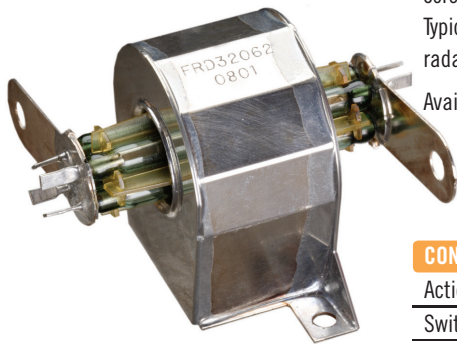
# FRD30000

Fully Screened, 6.5kV, 20A Reed Relay



The very high carry current capacity and high voltage isolation of this series is achieved through the use of multiple high vacuum reed switch contacts, ensuring a high level of performance and reliability. The two standard models will carry currents of 12 and 20Amps respectively at 30MHz and feature silver plated, fully screened coil assemblies for ultra-low RF losses. Typical applications include over the horizon (OTH) HF radar systems and 1kW base station transmitters.

Available as Form A (SPNO) only.



- **Up to 20A Carry Current at 30MHz**
- **6.5kV DC isolation across contacts**
- **Fully Screened Coil for Low RF Loss**
- **Cost Effective alternative to Vacuum Ceramic Devices**
- **Unique Design**
- **Suitable for 1 kW HF Transmitters**

CONTACT	UNITS	CONDITIONS	FRD32061	FRD32062
Action (form A, B or Latching)			A	A
Switching Voltage	V	DC max	20	20
Switching Current	A	DC max	1	1
Carry Current	A	RMS at 30MHz max	12	20
Isolation	kV	DC max	6	6.5
Capacitance (max.)	pF	coil/screen gnd	2	2
Lifetime	operations	dry switching	10 <sup>9</sup>	10 <sup>9</sup>
		24V, 1A	10 <sup>7</sup> -10 <sup>8</sup>	10 <sup>7</sup> -10 <sup>8</sup>
Contact Resistance	mOhms	maximum (typical)	50 (10)	50 (10)
Insulation Resistance	Ohms	minimum (typical)	10 <sup>10</sup> (10 <sup>13</sup> )	10 <sup>10</sup> (10 <sup>13</sup> )
<b>COIL at 20°C</b>				
Nominal Working Voltage	VDC		24	24
Must Operate	VDC	max	16	16
Must Release	VDC	min	4	4
Nominal Resistance	Ohms	+/-10%	430	270
RF Screening			Full	Full
RF Screening Connection			Via Mtg Screws	Via Mtg Screws
<b>RELAY</b>				
Operate time (incl. bounce)	ms		5	5
Release time	ms		3	3
Isolation contact to all other terminals	kV	DC max	10	10
Isolation coil to screen	kV	DC max	0.5	0.5
Capacitance contact to all other terms	pF	contacts open	6.0	6.0
<b>ENVIRONMENTAL</b>				
Storage temperature range	°C		-55°C to +125°C	
Operating temperature range	°C		-40°C to +85°C	
Weight	gm	typical	76	108

Please refer to this document for circuit design notes:-  
<http://www.cynergy3.com/blog/application-notes-reed-relays-0>

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ISO9001 CERTIFIED

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FRD30000 2016

# FRD30000

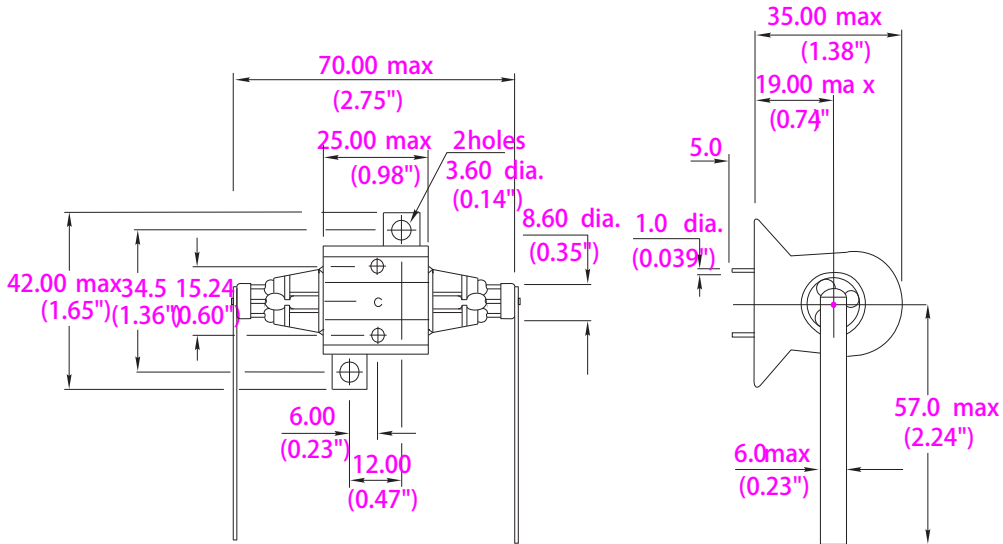
Fully Screened, 6.5kV, 20A Reed Relay



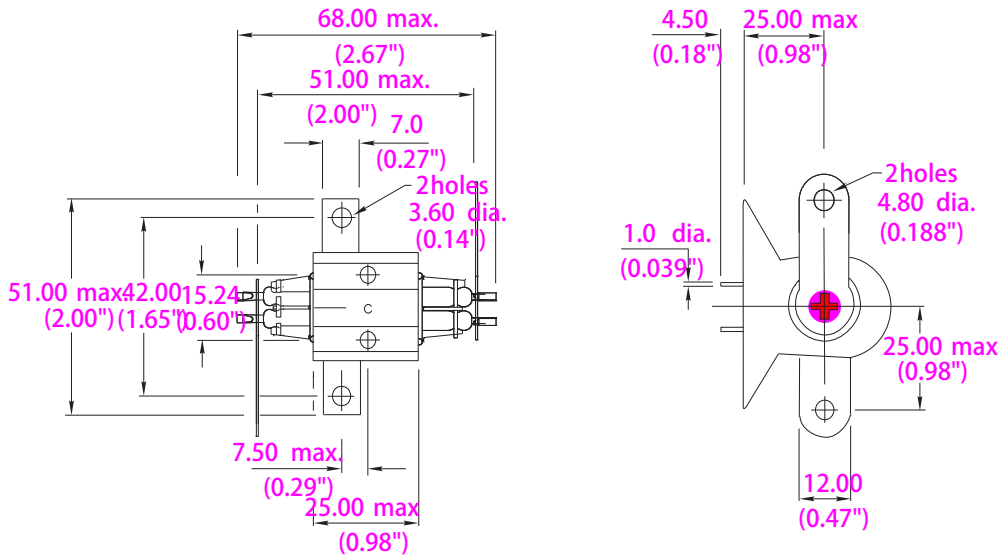
### Mechanical Dimensions

All dimensions are in millimeters (inches)

## FRD32061



## FRD32062



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ISO9001 Certified

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