# FRD30000

fully screened 6.5kV, 20A



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.

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

Available as Form A (SPNO) only.

| CONTACT                        | UNITS      | CONDITIONS        | FRD32061        | FRD32062        |
|--------------------------------|------------|-------------------|-----------------|-----------------|
| Action (form A, B or Latching) |            |                   | А               | A               |
| Switching Voltage              | V          | DC max            | 20              | 20              |
| Switching Current              | Α          | DC max            | 1               | 1               |
| Carry Current                  | Α          | 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           | 107-108         | 107-108         |
| Contact Resistance             | m0hms      | maximum (typical) | 50 (10)         | 50 (10)         |
| Insulation Resistance          | Ohms       | minimum (typical) | 1010 (1013)     | 1010 (1013)     |
| COIL at 20'C                   |            |                   |                 |                 |
| 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  |
| RELAY                          |            |                   |                 |                 |
| 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             |
| ENVIRONMENTAL                  |            |                   |                 |                 |
| Storage temperature range      | °C         |                   | -55°C to +125°C |                 |
| Operating temperature range    | °C         |                   | -40°C to +85°C  |                 |
| Weight                         | gm         | typical           | 76              | 108             |

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Email:sales@cynergy3.com

# cynergy3<sub>components</sub>

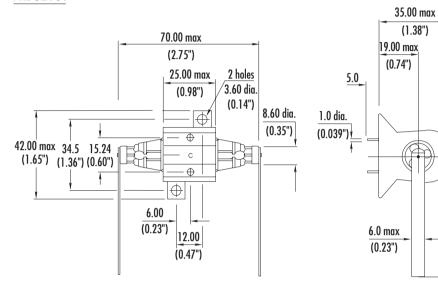
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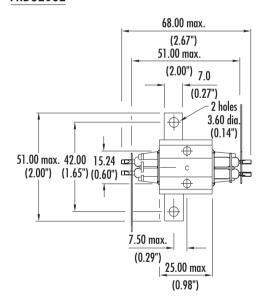
#### **Mechanical Dimensions**

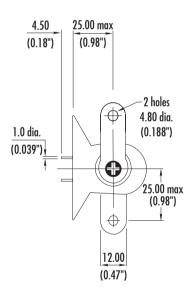
All dimensions are in millimeters (inches)

## FRD32061



## FRD32062





57.0 max

(2.24")

### IS09001 Certifed

#### USA

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