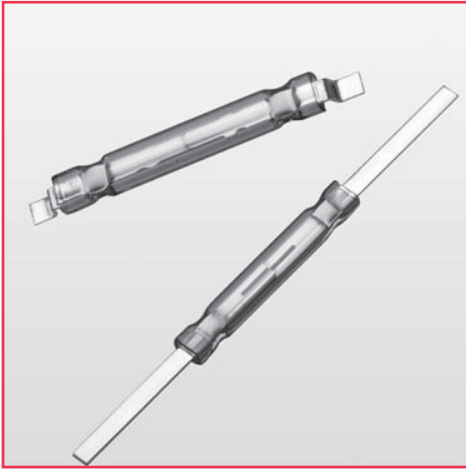


## FR DYAD<sup>®</sup> Switch



### FR DYAD<sup>®</sup> Switch

Coto Technology's FR dry reed switch series is ideally suited for small switching signal applications. This switch has sputtered ruthenium contacts and an extraordinary seal strength, achieved by a patented laser sealing of the glass. In low level or dry switching environments, the FR reed switch typically provides > 1 billion operations.

### FR DYAD<sup>®</sup> Features

- Small size
- Surface mount compatible
- Easily formed leads
- Sputtered ruthenium contacts
- Hermetically sealed contacts
- Fast switching speed - up to 500 Hz
- Rectangular body for superior pick and place performance
- Lead-free tin plating
- UL Recognized under UL File BP6039
- RoHS compliant

### Applications:

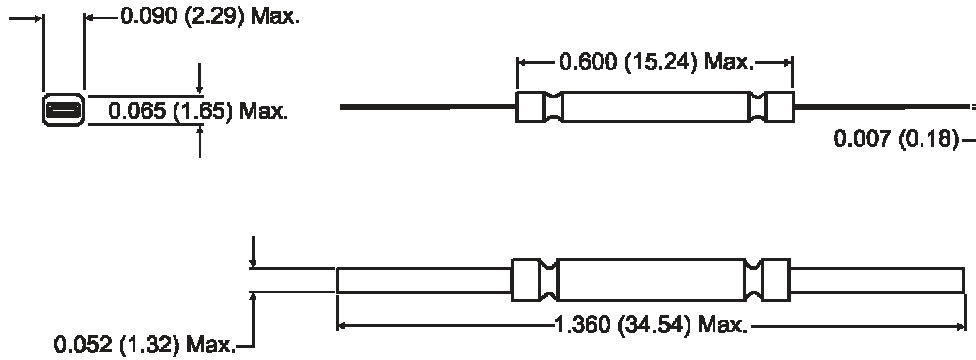
Proximity Sensing  
Smoke Alarms  
Level Sensor  
Current Sensor  
Relays  
Metering

Parameters	Test Conditions	Min	Typ	Max	Units
Contact Ratings					
Operate Ampere Turns Rating	±1.5N1	10		30	N1
Release Ampere Turns Range	±1.5N1	5		30	N1
Switching Voltage	Max DC /Peak AC Resistive			200	VDC
Switching Current	Max DC /Peak AC Resistive			0.5	Amps
Carry Current	Max DC /Peak AC Resistive			1.5	Amps
Contact Rating	Max DC /Peak AC Resistive			10	VA
Life Expectancy	1V 10mA Signal Level		1000		X10 <sup>6</sup> ops
	10V 10mA Low Level		500		X10 <sup>6</sup> ops
Static Contact Resistance	50mA 10mA		80	150	
Contact Material			Ru		mOhms
Switch Specifications					
Insulation Resistance	100V 25 Degrees C, 40% RH	10 <sup>9</sup>	10 <sup>11</sup>		Ohms
Capacitance	Across Open Contacts		0.3		pF
Dielectric Strength	Between Contacts	250	300		VDC/Peak AC
Operate Time including Bounce	At nominal coil voltage			0.5	ms
	10HZ Square Wave				
Release Time	ZeNER-Diode Suppression			0.2	ms
Environmental Ratings					
Storage Temperature		-40		+125	Degrees C
Operating Temperature		-40		+125	Degrees C
Soldering Temperature				265	Degrees C
Vibration Temperature				20	Gs
Shock Resistance	11±1ms, 1/2 sine wave			100	Gs
Weight			0.13		Grams/unit

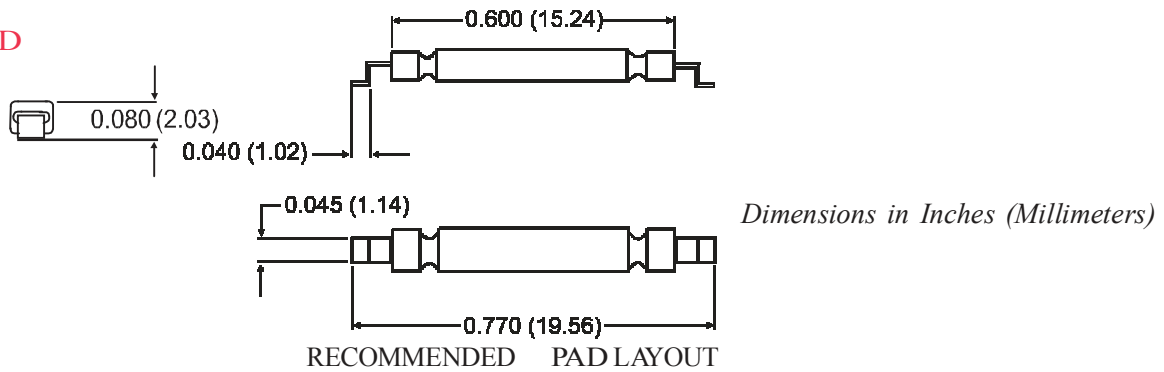
FR DYAD® Switch

MECHANICAL DIMENSIONS

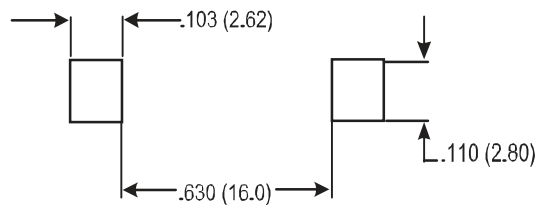
FR2S



FR SMD



RECOMMENDED PAD LAYOUT



ORDERING INFORMATION

FR2S DYAD®

Part #	Operate Range (NI) <sup>1</sup>
FR2S1015	10-15
FR2S1020	10-20
FR2S1030	10-30
FR2S1520	15-20
FR2S1525	15-25
FR2S2025	20-25

Part #	
FR2024	
FR2259	10-20
FR2282	10-30
FR2025	15-20
FR2249	15-25
FR2026	20-25

<sup>1</sup>Tolerance = ±1.5NI

<sup>1</sup>Tolerance = ±1.5NI

<sup>2</sup>Full Blade Sensitivity

<sup>3</sup>Surface Mount Switches are packaged 3,000 parts per reel