

# 5500 Series/High Voltage Reed Relays

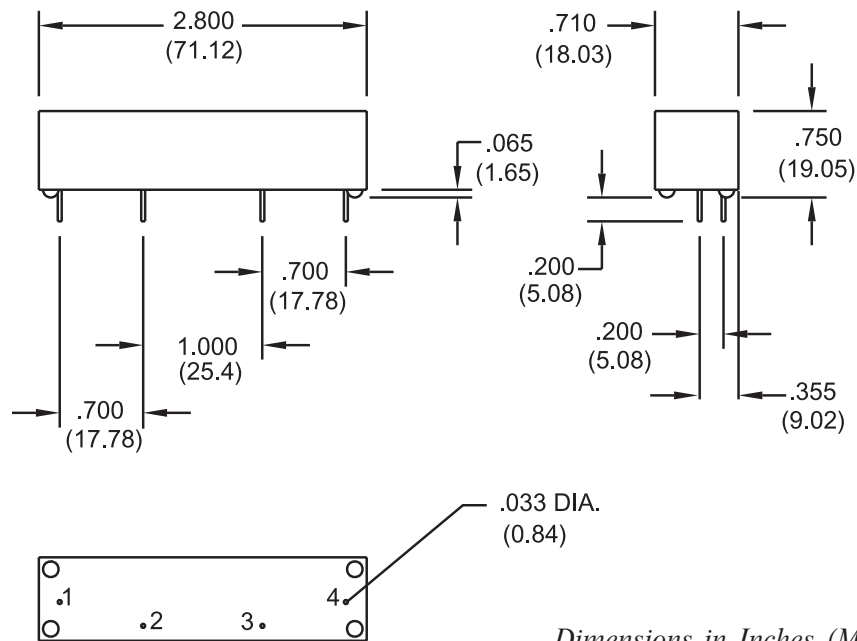


## High Voltage Reed Relays

The 5500 Series High Voltage Reed Relays are ideally suited to the needs of Instrumentation, Industrial Process Controls and General Purpose requirements. The specification tables allow you to select the appropriate relay for your particular application. Applications include medical and hipot test instruments, and cable test equipment. If your requirements differ, please consult your local representative or Coto's Factory.

## 5500 Series Features

- ◆ High Dielectric Strength - 10,000 Volts isolation across contacts
- ◆ High Contact Rating - 200 Watts
- ◆ Hermetically sealed Tungsten contacts for long life
- ◆ Magnetic Shield standard
- ◆ Custom lead terminations and packages available



*Dimensions in Inches (Millimeters)*

**Bottom View**

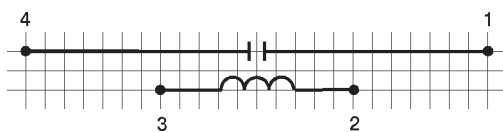
## Ordering Information

Part Number	XXXX-XX-1	Coil Voltage
5501	5502	05=5 volts
5503	5504	12=12 volts
		24=24 volts

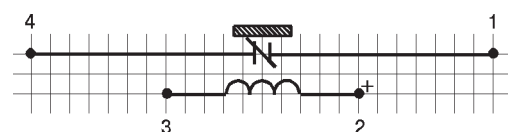
# 5500 Series/High Voltage Reed Relays

Model Number			5501	5502 <sup>2</sup>	5503	5504 <sup>2</sup>
Parameters	Test Conditions	Units	1 Form A High Voltage Isolation	1 Form B High Voltage Isolation	1 Form A Load Switching	1 Form B Load Switching
<b>COIL SPECS.</b>						
Nom. Coil Voltage		VDC	5 12 24	5 12 24	5 12 24	5 12 24
Max. Coil Voltage		VDC	6.5 15 30	6.5 15 30	6.5 15 30	6.5 15 30
Coil Resistance	+/- 10%, 25° C	Ω	40 175 575	40 175 575	40 175 575	40 175 575
Operate Voltage	Must Operate by	VDC - Max.	3.75 9.0 18.0	3.75 9.0 18.0	3.75 9.0 18.0	3.75 9.0 18.0
Release Voltage	Must Release by	VDC - Min.	0.5 1.0 2.0	0.5 1.0 2.0	0.5 1.0 2.0	0.5 1.0 2.0
<b>CONTACT RATINGS</b>						
Switching Voltage	Max DC/Peak AC Resist.	Volts	7500	7500	3500	3500
Switching Current	Max DC/Peak AC Resist.	Amps	3.0	3.0	3.0	3.0
Carry Current	Max DC/Peak AC Resist.	Amps	5.0	5.0	5.0	5.0
Contact Rating	Max DC/Peak AC Resist.	Watts	50	50	200	200
Life Expectancy-Typical <sup>1</sup>	Signal Level 1.0V, 1mA	x 10 <sup>6</sup> Ops.	100	100	100	100
Static Contact Resistance (max. init.)	50mV, 10mA	Ω	0.080	0.080	0.200	0.200
<b>RELAY SPECIFICATIONS</b>						
Insulation Resistance (minimum)	Between all Isolated Pins at 100V, 25°C, 40% RH	Ω	x 10 <sup>10</sup>	x 10 <sup>10</sup>	x 10 <sup>10</sup>	x 10 <sup>10</sup>
Capacitance - Typical Across Open Contacts		pF	1.5	1.5	1.5	1.5
Dielectric Strength (minimum)	Between Contacts Contacts to Coil	VDC/peak AC VDC/peak AC	10,000 10,000	10,000 10,000	7500 10,000	7500 10,000
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	3.0	3.0	3.0	3.0
Release Time - Typical	Zener-Diode Suppression <sup>3</sup>	msec.	3.0	3.0	3.0	3.0

Top View: Grid = .1"x.1" (2.54mm x 2.54mm)



**5501, 5503**



**5502, 5504**

## Notes:

<sup>1</sup>Consult factory for life expectancy at other switching loads.

<sup>2</sup>This relay contains a bias magnet. Correct coil polarity must be observed. Models 5502 and 5504 susceptible to magnetic interaction due to bias internal magnet.

<sup>3</sup>Consists of 56V Zener diode and 1N4148 diode in series, connected in parallel with coil.

## Environmental Ratings

Storage Temp: -35°C to +100°C

Operating Temp: -20°C to +85°C

Solder Temp: 270°C max; 10 sec. max

The operate and release voltage and the coil resistance are specified at 25°C. These values vary by approximately 0.4% / °C as the ambient temperature varies.

Vibration: 20 G's to 2000 Hz; Shock: 50 G's