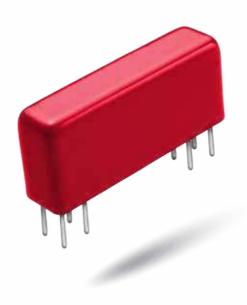
# 2300 SERIES MULTI-POLE REED RELAYS

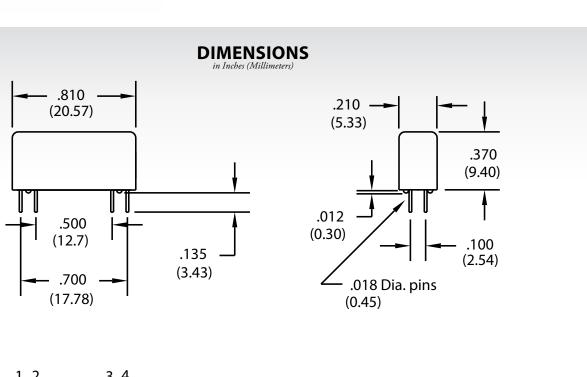


### 2300 Series Multi-Pole Reed Relays

The Coto 2300 series is designed to offer the densest packaging available in a multipole reed relay. The size and footprint of the 2300 series complement the 2200 & 2900 series relays. The 1 Form C model is constructed with individual switch capsules for the normally open and magnetically biased normally closed contacts which are more reliable than the spring actuated 1 Form C reed switches. Custom pin-outs as well as custom designs are available to meet particular applications.

#### 2300 Series Features

- ► Smallest Multi-pole Relay: 0.056 sq. inches/pole (3 pole relay)
- ▶ Up to 3 Form A or 2 Form C Contacts
- ▶ Hermetically Sealed Contacts
- ▶ Long Life / High Reliability
- ▶ Magnetically Shielding Steel Shell
- ▶ Optional Electrostatic Shield (on models 2332 & 2341)
- ▶ RoHS compliant



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## **Ordering Information**

Part Number 23XX-XX-0X0

Part Number <u>23xx-xx</u> -v <u>x</u> v						
<b>Model Number</b>		Shielding Options				
2332 (2 Form A) 2333 (3 Form A) 2341 (1 Form C) 2342 (2 Form C)	Coil Voltage 05=5 volts 12=12 volts	2332 or 2341 only 0=No Shielding 1=Electrostatic Shield 2=Coaxial Shield				

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MODEL NUMBER	?		2332	2333	2341 <sup>2,4</sup>	2342	
Parameters	<b>Test Conditions</b>	Units	2 Form A	3 Form A	1 Form C	2 Form C	
COIL SPECS.							
Nom. Coil Voltage		VDC	5 12	5 12	5 12	5 12	
Coil Resistance	+/- 10%, 25° C	Ω	175 1000	175 1000	230 1000	175 1000	
Operate Voltage	Must Operate by	VDC - Max.	3.8 9.0	3.8 9.0	3.8 9.0	3.8 9.0	
Release Voltage	Must Release by	VDC - Min.	0.4 1.0	0.4 1.0	0.4 1.0	0.4 1.0	
CONTACT RATINGS							
Switching Voltage	Max DC/Peak AC Resist.	Volts	200	200	200	100	
Switching Current	Max DC/Peak AC Resist.	Amps	0.5	0.5	0.5	0.25	
Carry Current	Max DC/Peak AC Resist.	Amps	1.5	1.5	1.5	0.5	
Contact Rating	Max DC/Peak AC Resist.	Watts	10	10	10	3	
Life Expectancy-Typical <sup>1</sup>	Signal Level 1.0V, 10mA	x 10 <sup>6</sup> Ops.	500	500	500	100	
Static Contact Resistance (max. init.)	50mV, 10mA	Ω	0.150	0.150	0.150	0.200	
Dynamic Contact Resistance (max. init.)	0.5V, 50mA at 100 Hz, 1.5 msec	Ω	0.200	0.200	0.200	0.250	
RELAY SPECIFICATION	IS						
Insulation Resistance (minimum)	Between all Isolated Pins at 100V, 25°C, 40% RH	Ω	10 <sup>12</sup>	10 <sup>12</sup>	1012	10 <sup>9</sup>	
Capacitance - Typical Across Open Contacts	No Shield Shield Guarding	pF pF	0.8 0.2	0.8 N/A	1.7 0.7	2.0 N/A	
Dielectric Strength (minimum)	Between Contacts Contacts to Shield Contacts/Shield to Coil	VDC/peak AC VDC/peak AC VDC/peak AC	250 1000 1000	250 N/A 1000	250 1000 1000	200 N/A 1000	
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.5	0.5	0.5	1.5	
Release Time - Typical		msec.	0.15	0.15	0.5	2.0	
Top View <sup>3</sup> :  Dot stamped on top of relay refers to pin #1 location  Grid = $.1$ "x.1" (2.54mm x 2.54mm)			5 6 4 6 0 3 7 0 2 8 1	5 6 4 3 7 2 2 8 1	5	5 4 3 7 7 2 2 8 1	

#### **Notes:**

- $^{1}$  Consult factory for life expectancy at other switching loads. Resistance >0.5 $\Omega$  defines end of life or failure to open.
- <sup>2</sup> Break-before-make action on Form C Model 2341 is not guaranteed. Consult factory if break-before-make is required.
- <sup>3</sup> Electrostatic shield (2332 & 2341 only) is connected to pin #6. Coaxial shield is connected to pins #6 and #7.
- <sup>4</sup> This relay is polarity sensitive. Pin #3 MUST be positive.

### **Environmental Ratings:**

Storage Temp: -35°C to \*100°C; Operating Temp: -20°C to \*85°C; Solder Temp: 270°C max; 10 sec. max All electrical parameters measured at 25°C unless otherwise specified.

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