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





Model Number Shielding Option 7332 (7 Form A) 2332 or 2341 only	Ordering Information Part Number <u>23XX-XX</u> -0 <u>X</u> 0							
2032 (2 rom R) Coil Voltage 2332 of 2041 only 2333 (3 Form A) Coil Voltage 0=No Shielding 2341 (1 Form C) 05=5 volts 1=Electrostatic Shie 2342 (2 Form C) 12=12 volts 2=Cogxial Shield	32 (2 Form A) 33 (3 Form A) 41 (1 Form C)	2 or 2341 only lo Shielding lectrostatic Shield						

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MODEL NUMBER	ł		2332	2333	2341 ^{2,4}	2342
Parameters	Test Conditions	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 ¹	Signal Level 1.0V, 10mA	x 10 ⁶ 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 ¹²	10 ¹²	10 ¹²	10 ⁹
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
Dot stan	nped on top of relay refers to Grid = .1"x.1" (2.54)	•	$5 \bullet \bullet \bullet 4$ $6 \bullet \bullet 3$ $7 \bullet \bullet \bullet 2$ $8 \bullet \bullet \bullet 1$		$\begin{bmatrix} 5 & \bullet & \bullet & 4 \\ 0 & \bullet & 3 \\ & & & & \\ 7 & & & & \\ 8 & \bullet & \bullet & 1 \end{bmatrix}$	

Notes:

¹ Consult factory for life expectancy at other switching loads. Resistance >0.5 Ω defines end of life or failure to open.

² Break-before-make action on Form C Model 2341 is not guaranteed. Consult factory if break-before-make is required.

³ Electrostatic shield (2332 & 2341 only) is connected to pin #6. Coaxial shield is connected to pins #6 and #7.

⁴ 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