## 2970 Series Reed Relays for 125°C

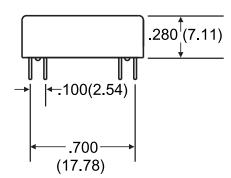


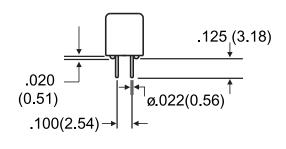
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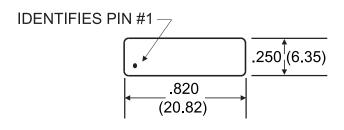
Ideally suited to the needs of Automated Test Equipment and RF requirements. The 2970 series offers a 1 Form A and 1 Form C coaxial relay for special 125°C testing environments. If your requirements differ, please consult your local representative or Coto's Factory.

### 2970 Series Features

- ♦ Very small (0.20 in²), high reliability reed relays.
- High Insulation Resistance.
- Hermetically sealed contacts for long life.
- Epoxy coated steel shell provides magnetic shielding.
- Coaxial Shield for 50  $\Omega$  impedance and switching of fast rise time digital pulses.
- ◆ 125°C Operating Temperature.



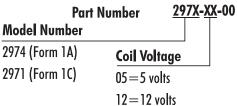




**Top View** 

Dimensions in Inches (Millimeters)

## **Ordering Information**



# 2970 Series Reed Relays for 125°C

<b>Model Number</b>			2974 <sup>2</sup>	2971 2
Parameters	<b>Test Conditions</b>	Units	1 Form A	1 Form C
COIL RESISTANCE				
Nom. Coil Voltage		VDC	5 12	5 12
Coil Resistance	+/- 10%, 25° C	Ω	230 1500	230 1500
Operate Voltage	Must Operate by	VDC - Max.	3.8 9.0	3.8 9.0
Release Voltage	Must Release by	VDC - Min.	0.4 1.0	0.4 1.0
CONTACT RATING				
Switching Voltage	Max DC/Peak AC Resist.	Volts	200	150
Switching Current	Max DC/Peak AC Resist.	Amps	0.5	0.25
Carry Current	Max DC/Peak AC Resist.	Amps	1.5	1.0
Contact Rating	Max DC/Peak AC Resist.	Watts	10	3
Life Expectancy-Typical 1	Signal Level 1.0V, 10mA	x 10 <sup>6</sup> Ops.	500	100
Static Contact				
Resistance (max. init.)	50mV, 10mA	Ω	0.100	0.150
Dynamic Contact	0.5V, 50mA		0.200	0.200
Resistance (max. init.)	at 100 Hz, 1.5 msec	Ω	0.200	0.200
RELAY SPECIFICATIONS				
Insulation Resistance	Between all Isolated Pins			
(minimum)	at 100V, 25°C, 40% RH	$\Omega$	$10^{12}$	$10^{11}$
Capacitance - Typical	Shield Floating		-	
Across Open Contacts	Shield Guarding	pF pF	1.0 0.3	2.0 1.0
Dielectric Strength	Between Contacts	VDC/peak AC	350	200
(minimum)	Contacts to Shield	VDC/peak AC VDC/peak AC	350	200
(mmmum)	Contacts/Shield to Coil	VDC/peak AC	1500	1500
Operate Time - including	At Nominal Coil Voltage,	V Be/peak / IC	1500	1500
bounce - Typical	30 Hz Square Wave	msec.	0.5	1.0
Release Time - Typical	Zener-Diode Suppression <sup>3</sup>	msec.	0.1	2.0
Top View: Dot stamped on top of relay refers to pin #1 location Grid = .1"x.1" (2.54mm x 2.54mm)			5 4 6 3	5 4 6 3
			7 0 2	7 2

## Environmental Ratings:

Storage Temp: -35°C to +125°C; Operating Temp: -20°C to +125°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

#### Notes:

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

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

<sup>&</sup>lt;sup>2</sup> Pins #6 & #7 are tied to coaxial shield.