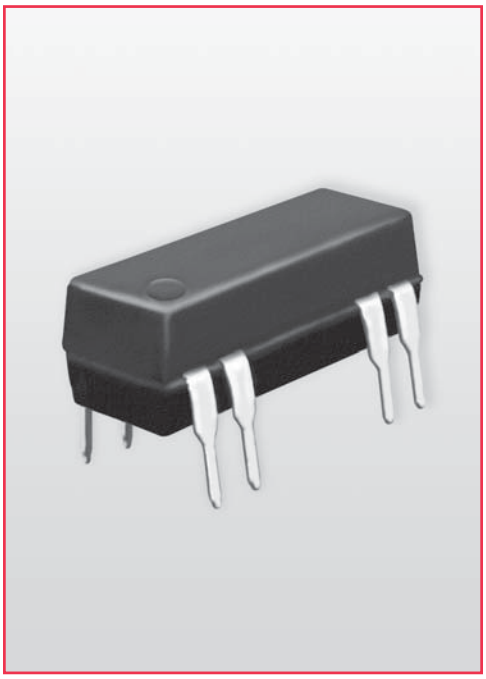
8L Series/Spartan DIP Reed Relays

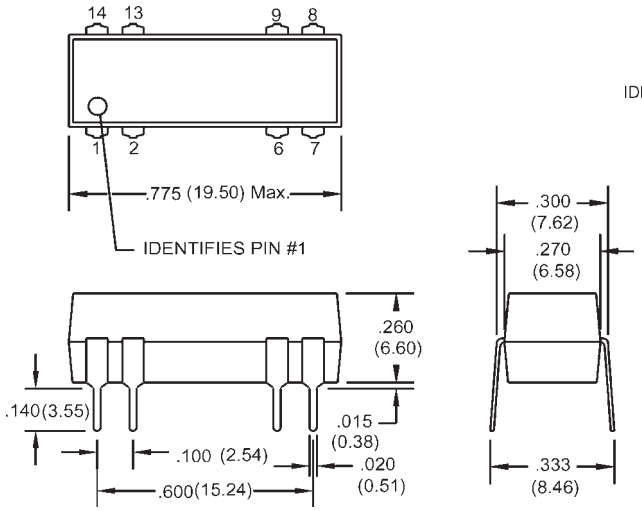


Economy DIP Reed Relays

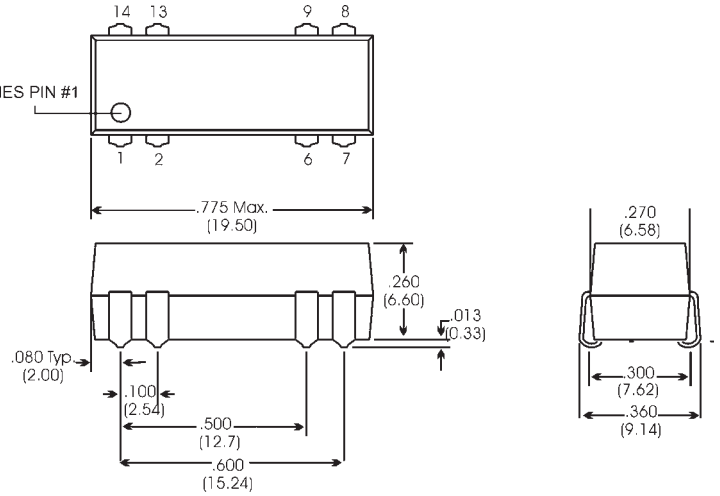
The Coto 8L Spartan Series relays combine Coto quality and economy in the industry standard 14 pin molded DIP package. This series will cross to all competitive DIP packages and is ideal for telecom, security, and other general purpose applications.

8L Series Features

- Drop-in low cost replacement for industry standard DIP packages
- Contact forms; 1A, 2A, 1B and 1C available
- Available coils in 5V, 12V and 24V
- Molded thermoset body on integral lead frame design
- Hermetically Sealed Contacts
- Optional Electrostatic Shield and Coil Suppression Diode
- UL File # E67117



(For Model #'s 8L01, 8L02, 8L21 & 8L41)



(For Model # 8L61)

Dimensions in Inches (Millimeters)

Ordering Information

Part Number 8LXX-XX-XX1

Model Number: 8L01 8L41 8L61

Coil Voltage: 05=5 volts; 12=12 volts; 24=24 volts

Diode Option [3]: 0=No Diode 1=Diode

Shield Option [4]: 0=No Shield; 1=Electrostatic Shield

Ordering Information

Part Number 8LXX-XX-XX

Model Number: 8L02 8L21

Coil Voltage: 05=5 volts; 12=12 volts; 24=24 volts

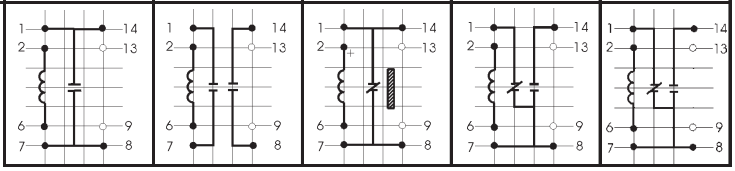
Diode Option [3]: 0=No Diode 1=Diode

Shield Option [4]: 0=No Shield; 1=Electrostatic Shield

8L Series/Spartan DIP Reed Relays

Model Number			8L01[2,3,4]	8L02[2,3,4]	8L21[2,3,4]	8L41[2,3,4]	8L61[2,3,4,5]
Parameters	**Test Conditions**	**Units**	**1 Form A**	**2 Form A**	**1 Form B**	**1 Form C**	**1 Form C SMD**
COIL SPECS.							
Nom. Coil Voltage		VDC	5 12 24	5 12 24	5 12 24	5 12 24	5 12
Max. Coil Voltage		VDC	6.5 15 32	6.5 15 32	6.5 15 32	6.5 15 32	6.5 15
Coil Resistance	+/- 10%, 25° C	Ω	500 500 2150	200 500 2000	200 500 2000	200 500 2000	200 500
Operate Voltage	Must Operate by	VDC - Max.	3.8 9.6 19.2	3.8 9.6 19.2	3.8 9.6 19.2	3.8 9.6 19.2	3.8 9.6
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	0.5 1.0
CONTACT RATINGS							
Switching Voltage	Max DC/Peak AC Resist.	Volts	200	200	200	100	100
Switching Current	Max DC/Peak AC Resist.	Amps	0.5	0.5	0.5	0.25	0.25
Carry Current	Max DC/Peak AC Resist.	Amps	1.0	1.0	1.0	0.5	0.5
Contact Rating	Max DC/Peak AC Resist.	Watts	10	10	10	3	3
Life Expectancy-Typical [1]	Signal Level 1.0V,10mA	x 10^6 Ops.	500	500	500	100	100
Static Contact Resistance (max. init.)	50mV, 10mA	Ω	0.150	0.150	0.150	0.200	0.200
Dynamic Contact Resistance (max. init.)	0.5V, 50mA at 100 Hz, 1.5 msec	Ω	N/A	N/A	N/A	N/A	0.250
RELAY SPECIFICATIONS							
Insulation Resistance (minimum)	Between all Isolated Pins at 100V, 25°C, 40% RH	Ω	10^{10}	10^{10}	10^9	10^9	10^9
Capacitance - Typical Across Open Contacts	No Shield	pF	0.5	0.5	0.5	1.5	1.5
	Shield Floating	pF	1.0	0.5	0.5	1.5	1.5
	Shield Guarding	pF	0.5	0.2	0.2	1.0	1.0
Open Contact to Coil	No Shield	pF	1.5	1.5	2.5	1.5	1.5
	Shield Floating	pF	2.0	2.0	2.0	2.0	2.0
	Shield Guarding	pF	0.5	0.5	1.5	0.5	0.5
Contact to Shield	Contacts Open, Shield Floating	pF	2.0	1.5	2.0	2.0	2.0
Dielectric Strength (minimum)	Between Contacts	VDC/peak AC	250	250	250	200	200
	Contacts to Shield	VDC/peak AC	1500	1500	1500	1500	1500
	Contacts/Shield to Coil	VDC/peak AC	1500	1500	1500	1500	1500
Operate Time - including bounce - Typical	At Nominal Coil Voltage, 30 Hz Square Wave	msec.	0.5	0.5	0.5	1.0	1.0
Release Time - Typical	Diode Suppression [6]	msec.	1.0	1.0	1.0	1.5	1.5
	No Suppression	msec.	0.5	0.5	0.5	1.0	1.0

Top View:
Dot stamped on top of relay refers to pin #1 location
Grid = .1"x.1" (2.54mm x 2.54mm)



Notes:

[1] Consult factory for life expectancy at other switching loads.
[2] Molded Depression on top of relay refers to pin #1 location.
[3] Optional coil suppression diode across pins 2(+) and 6(-).
[4] Optional ES Shield is tied to pin 9.
[5] Surface mount processing temperature: 260°C max for 1 minute dwell time. Temperature measured on leads where lead exits molded package.
[6] 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