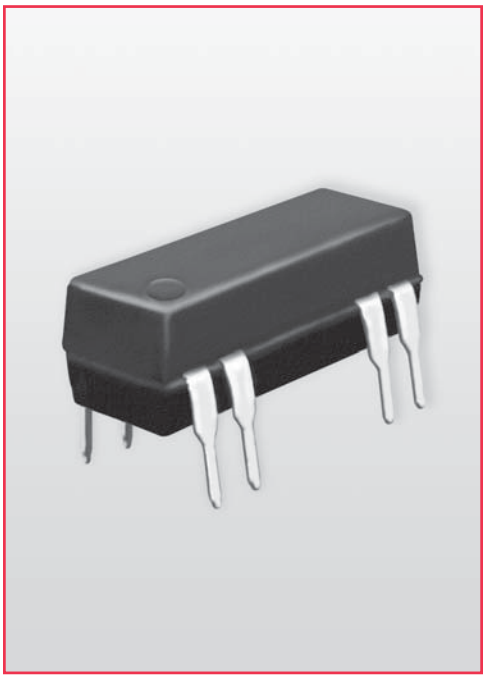
# 8L Series/Spartan DIP Reed Relays

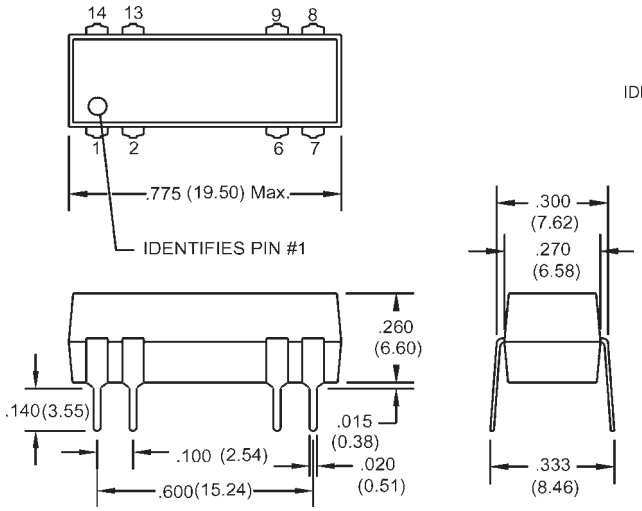


## Economy DIP Reed Relays

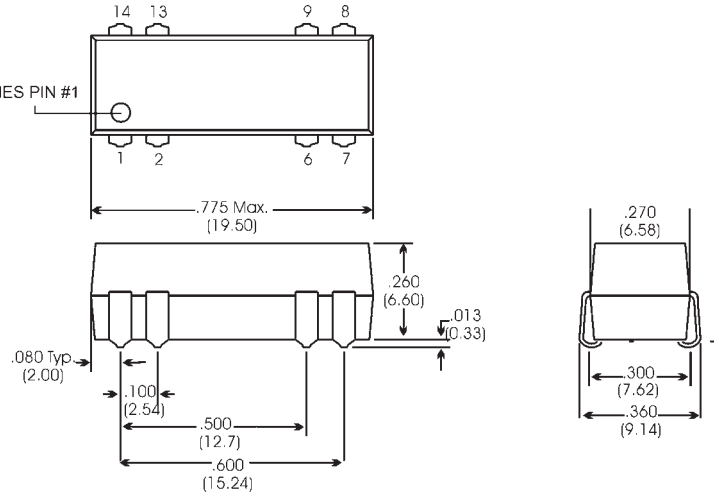
The Coto 8L Spartan Series relays combine Coto quality and economy in the industry standard 14 pin molded DIP package. This series will cross to all competitive DIP packages and is ideal for telecom, security, and other general purpose applications.

## 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




**(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

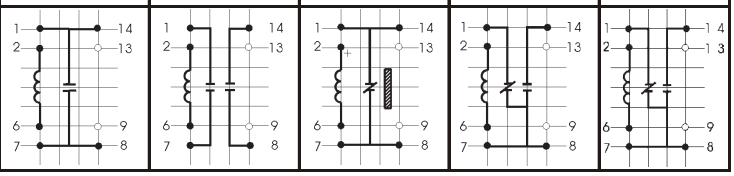
Diode Option [3]: 0=No Diode 1=Diode

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 | x $10^{10}$ | x $10^{10}$ | x $10^9$ | x $10^9$ | x $10^9$ |
| 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 | No Suppression | msec. | 0.5 | 0.5 | 0.5 | 1.0 | 0.5 |
| | Diode Suppression | msec. | 1.0 | 1.0 | 1.0 | 1.5 | 1.5 |

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: 438°F (226°C) max for 1 minute dwell time. Temperature measured on leads where lead exits molded package. Through-hole component processing temperature: 518°F (270°C) max; 10 seconds max.

**Environmental Ratings:**

Storage Temp: -35°C to +100°C; Operating Temp: -20°C to +85°C
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