

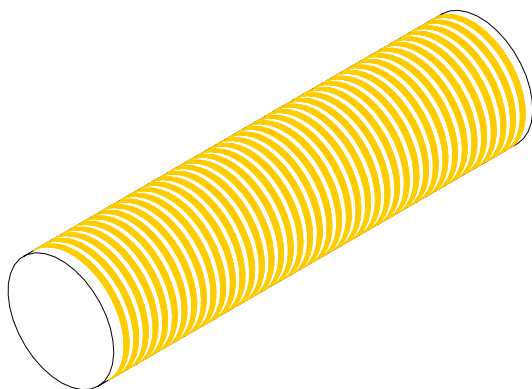


www.zaxisconnector.com

## Z-AXIS Connector Company

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# Z-Round Gold Elastomeric Connectors



### DIMENSIONS

**Diameter** 0.039" ( 1.00 mm) to 0.500" ( 13 mm)  
**Length** 0.100" ( 2.54 mm) to 8.00" ( 20 cm)

### CONDUCTOR RELATIONSHIPS

Diameter	Pitch
0.002" (0.05mm)	0.004" (0.1mm) Standard
Custom pitches and groupings available	

### CONDUCTOR METALLURGY

30u" Gold over 50u" Nickel over Copper wire, standard

### PROPERTIES

**Contact Resistance:** <20 milliohms per contact, typical  
**Current Rating:** 500 milliamperes per 0.015" pad  
**Capacitance Between Conductors:** < .3pf between pads  
**Inductance:** < 0.05 nanohenries from 5 to 500 khz  
**Core Material:** Silicone rubber  
**Core Durometer:** 50 Shore A, standard  
**Film:** 0.001" Polyimide, standard  
**Humidity Range:** 0-100%  
**Temperature Range:** -65° to +250°F  
**Dielectric Withstanding Voltage:** 500V rms, minimum

### FEATURES

- |                                   |  |
|-----------------------------------|--|
| ➤ Multiple <u>Line</u> Contacts   | ➤ Standard Conductors                            |
| ➤ Gold Over Nickel Contact Finish | 0.002" (0.05mm) Diameter<br>0.004" (0.1mm) Pitch |
| ➤ Flexible Substrate              | ➤ Lower Compression Ratios                       |

Z-AXIS' Fine-Pitch Elastomeric Connectors provide low resistance gold interconnects for high-density packaging.

These connectors satisfy a wide range of applications including interconnects between pc boards, displays, flex cables and ceramic substrates. The contact area is well suited for contacting a variety of pad materials including deposited metallurgies on displays, glass, ceramics, etc.

The connectors consist of a flexible ultra-fine-pitch connector element surrounding an elastomeric core. The fine conductors consist of closely spaced parallel gold plated wires to provide multiple line contacts on each circuit pad.

The standard element incorporates 0.002" (0.05) diameter wires, retained by a thin flexible polyimide film, at a 0.004" (0.10) center-to-center pitch. This fine pitch provides contact redundancy on board pads as small as 0.010" (0.25) with centers as close as 0.020" (0.51).

The combination of the highly flexible connector element and its soft, elastomeric core provide the shape and compliance to ensure reliable contacts which compensate for variations in surface flatness and pad irregularities. The core is designed to resist permanent set under long term compression.

Properties are based on 2 to 3 conductive paths between .015" gold plated pads on .025" centers with a 0.055" substrate separation.