

## **Z-AXIS Connector Company**

345 Ivyland Road, Warminster, PA 18974 (267) 803-9000 FAX (267) 803-9004

# **Z-Thru Z-Alloy Elastomeric Connectors**



#### DIMENSIONS

Height	0.020"(0.50 mm)	to	0.750" (19 mm)	
Width	0.024"(0.60 mm)	to	0.750" (19 mm)	
Length	0.020" ( 0.50 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

Proprietary copper-nickel alloy

#### PROPERTIES

Contact Resistance: <0.5 Ohms per contact, typical Core Material: Silicone rubber Core Durometer: 50 Shore A, standard Film: 0.001" Polyimide, standard Humidity Range: 0-100% (non-condensing) Temperature Range: -45° to +125°C Dielectric Withstanding Voltage: 500V rms, minimum Properties are based on 4 to 5 conductive paths between .020"

gold plated pads on .040" centers with a 0.250" substrate separation.

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۶	Stable Resistance	$\triangleright$	Corrosion Resistant
۶	Multiple Point Contacts	$\triangleright$	Lower Compression Ratios
	Flexible Substrate		High Strength Conductors

Z-AXIS' Fine-Pitch Z-Alloy Elastomeric Connectors provide stable resistance and durability for highdensity packaging under a variety of demanding environmental conditions.

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 through an elastomeric core. The fine conductors consist of closely spaced parallel Z-Alloy wires to provide multiple <u>point</u> contacts on each circuit pad.

The standard element incorporates 0.002" (0.05mm) diameter wires at a 0.004" (0.10mm) center-to-center pitch. This fine pitch provides contact redundancy on board pads as small as 0.010" (0.25mm) with centers as close as 0.020" (0.5mm).

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.