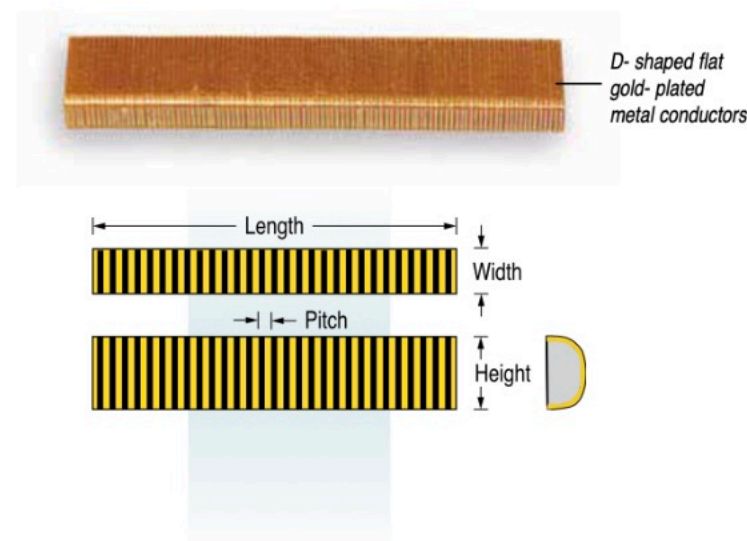


# ZEBRA® GOLD 8000 CONNECTORS

The FUJIPOLY ZEBRA® Series 8000 elastomeric connector elements are D-shaped, low durometer silicone elastomer cores around which flat metallic gold-plated conductors are vulcanized in a row parallel to each other. The tips of the metallic conductors are turned upward so that point contact can be effected; in addition, contact is made to the flat area when the connector element is positioned between two printed circuit boards. The point contact will penetrate surface oxides or contaminants which might be present on the surface of the contact pads, thus assuring reliable electrical connection on two planes. Also available are standard board-to-board assemblies which include connector and holder.



## DIMENSIONAL SPECIFICATIONS

Connector Dimensions*	Minimum		Maximum	
Length=L	0.200" ± 0.005"	5.08mm ± 0.127mm	6.000" ± 0.030"	152.4mm ± 0.762mm
Height=H	0.100" ± 0.005"	2.54mm ± 0.127mm	0.500" ± 0.015"	12.70mm ± 0.381mm
Width=W	0.060" ± 0.005"	1.52mm ± 0.127mm	0.125" ± 0.010"	3.18mm ± 0.254mm

**Note:** For good design practice and low deflection force requirements, the height "H" should be twice the width "W". For other sizes consult factory.

## MATERIALS

Connector Component	Materials Used
Conductive Elements	Gold-plated copper wire. gold 0.00025mm (0.00001"), nickel 0.0013mm (0.00005").
Wire Size and Spacing (Series 8000 A,B and C)	A. 0.05mm x 0.127mm (0.002" x 0.005") flat wire on 0.25mm (0.010") center-to-center spacing. (Min. 100 wires/ inch.) B. 0.05mm x 0.10mm (0.002" x 0.004") flat wire on 0.19mm (0.0075") center-to-center spacing. (Min. 133 wires/inch.) C. 0.025mm x 0.076mm (0.001" x 0.003") flat wire on 0.15mm (0.006") center-to-center spacing. (Min. 166 wires/inch.)
Connector body	Non-conductive tan color silicone rubber. UL-94-HB rating, 500 volts/mil dielectric strength.
Film	0.025mm (0.001") thick polyamide dielectric strength of film ASTM-D-149, 2000 volts/mil.

## PERFORMANCE CHARACTERISTICS

Parameter	Conditions and Performance
Contact Resistance	Less than 25 milliohms on 0.025" wide contact pads; 0.100 amperes DC, Kelvin- type four probe test method
Insulation Resistance	Minimum 10 <sup>12</sup> ohms between adjacent conductive elements.
Current Carrying Capacity	Series 8000 A and B, 500 mA per wire max.; Series 8000 C, 250 mA per wire max.
Capacitance	Maximum 0.100 picofarads per adjacent pad at 1 MHz and 0.100" high ("H").
Inductance	Maximum 7 nanohenries per adjacent pad at 1 MHz and 0.100" high ("H").
Repeated Actuations	500 actuations without appreciable change in contact resistance (deflection of 15%).
Deflection	8% to 20%. Recommended deflection 10 to 15% of original height.
Deflection Force/Inch	4lbs. per linear inch for 15% deflection for a 0.062" ("W") x 0.285 ("H") connector.
Operating Temperature Range	-20° C min., 125° C max.
Salt Spray Test	MIL-STD-202E, method 101D, condition B. 5% salt solution 95° F, 48 hours. There was no evidence of blistering or peeling of the contact material.
Temperature Cycling	MIL-STD-202E, method 102A, condition D, -55° C, 25° C, 125° C. There was no change in the physical properties of the specimens.
Humidity (Steady State)	MIL-STD-202E, method 103B, condition C modified. 95% RH room temperature. There was no appreciable change in contact resistance after 500 hours exposure.
Corrosive Environment	1,000 hours exposure at 1 ppm H <sub>2</sub> S and 1 ppm O <sub>2</sub> , 60° C AND 75% RH. Slight change in contact resistance; no evidence of contact peeling or blistering.