

# **GOLD 8000 Connector**

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ISO9001 / ISO14001

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### 1] Product Name :

Gold 8000 Type A Connector Gold 8000 Type B Connector Gold 8000 Type C Connector

#### 2] Features :

Gold 8000 elastomeric connector elements are D-shaped with low durometer silicone rubber cores around which flat metallic gold-plated conductors are vulcanised 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 contaminants which might be present on the surface oxides or contact pads, thus assuring reliable electrical connection on two planes. Also available are standard board to board assemblies which include connector and connector holder.

- -a) Very low contact resistance, high current capacity.
- -b) Can be used for minimum 0.5mm (0.020 inches) electrode pitch.





| Та | ble | <u>- 1</u> |  |
|----|-----|------------|--|
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|                          | Gold 8000 type A                          | Gold 8000 type B   | Gold 8000 type C   |
|--------------------------|---|--------------------|--------------------|
| Conductive wire per inch | 100 wires / 25.4mm                        | 133 wires / 25.4mm | 166 wires / 25.4mm |
| Conductive Wire          | 0.002" x 0.005"                           | 0.002" x 0.004"    | 0.001" x 0.003"    |
| Support Film             | 0.001"(0.0254mm) Thickness Polyamide Film |                    |                    |
| Connector Body           | Non conductive Silicone Rubber            |                    |                    |

# 4] Available Size and Tolerance of Gold 8000 Connector Type A, B, C.

|             |      | MM ( metric system ) |                   | In              | ch              |
|-------------|------|----------------------|-------------------|-----------------|-----------------|
| Measurement | Mark | Minimum              | Maximum           | Minimum         | Maximum         |
| Length      | L    | 5.08mm ± 0.127mm     | 152.4mm ± 0.762mm | 0.200" ± 0.005" | 6.000"±0.030"   |
| Height      | н    | 2.54mm ± 0.127mm     | 12.70mm ± 0.381mm | 0.100" ± 0.005" | 0.500" ± 0.015" |
| Width       | W    | 1.52mm ± 0.127mm     | 3.18mm ± 0.254mm  | 0.060" ± 0.005" | 0.125"±0.010"   |

Note :

For good design practice and low deflection force requirements, The High (H) should be twice the width (W) For other sizes consult factory.





Table - 2

## 5] Typical product Properties.

| Table -                   |   |  |                  |                      |
|---------------------------|---|--|------------------|----------------------|
| Measurement               | Mark  | Gold 8000 Type A   | Gold 8000 Type B | Gold 8000 Type C     |
| Operating                 | °C  | -20°C ~ +125°C   |                  |                      |
| Range                     | °F  | -4°F ~ +255°F  |                  |                      |
| Contact Resistance        | Ohms  | Less than 0.025 (0.025''wide contact - Pads)                     |                  |                      |
| Current Carrying Capacity | mA  | 500mA / wire maximum 250r  |                  | 250mA / wire maximum |
| Insulation Resistance     | Ohms  | Minimum 10 <sup>12</sup> , between adjacent Conductive wire      |                  |                      |
| Capacitance               | PF  | Maximum 0.10, per adjacent pad at 1MHZ and 0.100 height.         |                  |                      |
| Inductance                |   | Maximum 7nanohenries, per adjacent pad at 1MHZ and 0.100 height. |                  |                      |
| Deflection                | 8% to 20%. Recommended 10% to 15% of original height. |  |                  |                      |

## 6] Basic Environmental Testing Characteristics

|   |   |   | Table - 4  |
|---|---|---|--|
| Item                                      | Test Method                             | Test Condition  | Test Result  |
| Temperature Cycling                       | Based on<br>MIL-202-102A                | Test Cycle<br>-55°C → +25°C → +125°C<br>(-67°F → +77°F → +25°F)                       | There was No change in the physical properties   |
| Humidity(Steady-state)<br>(Moisture Test) | Based on<br>MIL-202-103B                | Room Temperature<br>95%RH   | There was No appreciable change in contact resistance after 500hrs exposure.             |
| Corrosive Environment                     |   | 1000hrs exposure at<br>1.0ppm H <sub>2</sub> S 60°C / 75%RH<br>1.0ppm SO <sub>2</sub> | Slight change in contact<br>resistance : no evidence of contact<br>peeling or blistering |
| Salt spray Test                           | Based on<br>MIL-202-101D<br>Condition B | 5% Salt Solution<br>35°C / 48hrs  | There was No evidence of<br>blistering or peeling of the<br>contact material.            |

# 7] Structure Materials

|                 |   | Table - 5               |
|-----------------|---|-------------------------|
| Parts           | Materials   |                         |
| Conductive wire | Gold Plated Copper wire (Gold 0.00001" Thickness)   |                         |
| Connector body  | Non Conductive Low Compression Set Silicone Rubber. | Flame test / UL 94 - HB |
| Film            | 0.001" (0.025mm) Thickness Polyamide Film           |                         |

### 8] Others Technical Informations.

FUJIPOLY website http://www.fujipoly.com/

Notes :

- All FUJIPOLY test data in this document is based on FUJIPOLY test method and is believe to be accurate and reliable. Nevertheless, any FUJIPOLY test data shows typical product properties, and does not show the guaranteed product properties.
- Some Silicone oil could exude from the product according to operating conditions.
- Some low molecular Siloxane could vaporize from the product according to operating conditions.
- It is advisable to use the product under recommended operating condition. Some more Silicone oil could exude from the product if it was used over the recommended condition.
- It is advisable to use the product under parallel and even compression. Some more Silicone oil could exude from the product if it was used under excessive or partial stress.
- Products testing by the purchaser is recommended in order to meet expected results such as performance and application.

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|--------------------------|-----------|
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