BONDED THERMOCOUPLE WAFER ASSEMBLIES

Thermo Electric designs and manufactures temperature measurement solutions that are guaranteed to give you sensitivity, fast response and consistent accuracy with greatest sensor to sensor uniformity. Thermo Electric is committed to deliver its innovative instrumented wafer solutions on time with a world class technical service.

PRODUCT TEMPERATURE RANGES
-150 to 700°C (Silicon Based Adhesive)

THERMOCOUPLE CALIBRATION (ACCURACY)
- **Type K** (±1.1°C or 0.4%) Range -270 to 1,372°C
- **Type N** (±1.1°C or 0.4%) Range -270 to 1,300°C
- **Type E** (±1.0°C or 0.4%) Range -270 to 1,000°C
- **Type R/S** (±1.5°C or 0.25%) Range -50 to 1,768°C

SPECIFICATIONS

Sensor Leads
Up to 40ft. – Customization available

Insulations Available
- Quartz
- Teflon
- Silica
- Ceramic
- Polyimide

Wire Gauges
20 AWG – 40 AWG

TERMINATIONS

- Mini Plugs Standard and High Temperature Ceramic
- D-Pin Subminiature Standard Connectors
- Ultra-High Vacuum (UHV) Peek Connectors - Sub C & D
- Spade Tang
- Vacuum Contacts Pins & Sockets 0.050" & 0.040"
- Bare Wire

Substrates
Silicon, AlTiC, Glass, Ceramic and other supplied bare, coated, or patterned substrates. Other custom substrates, shapes and sizes available

Substrate Sizes Offered
100mm, 125mm, 150mm, 200mm and 300mm

Feedthrough
Polyimide flat cable with seal under O-ring, atmosphere to 10⁻³ Torr capable. Length designated by customer.

<table>
<thead>
<tr>
<th>Wire Gauge</th>
<th>36 AWG</th>
<th>30 AWG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Gap</td>
<td>0.150mm</td>
<td>0.300mm</td>
</tr>
<tr>
<td>Planarity</td>
<td>+/-1% STANDARD GAP</td>
<td>+/-1% STANDARD GAP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substrate Size</th>
<th>100mm</th>
<th>125mm</th>
<th>150mm</th>
<th>200mm</th>
<th>300mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire Gauge 1</td>
<td>1.050mm +/- 0.050</td>
<td>1.250mm +/- 0.050</td>
<td>1.500mm +/- 0.050</td>
<td>1.450mm +/- 0.050</td>
<td>1.500mm +/- 0.050</td>
</tr>
<tr>
<td>Wire Gauge 2</td>
<td>1.600mm +/- 0.050</td>
<td>1.850mm +/- 0.075</td>
<td>2.050mm +/- 0.075</td>
<td>2.000mm +/- 0.075</td>
<td>2.250mm +/- 0.075</td>
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Silicon Wafers, Silicon Based Adhesive, Thermocouple Junction

TRUSTED EXPERTISE & LASTING RELATIONSHIPS