ADVANCED CONNECTOR SOLUTIONS

1. Personal One-to-One Technical Support
2. Standard Products Readily Available
3. Cable Assembly Integrated Solutions
4. Rapid Product Development
5. Custom Capabilities to Meet Technical Challenges

- Circular Connectors
- Electrical Contacts
- Modular Connectors
- Cable Assembly

A Perfect Alliance.

www.odu-usa.com
A PERFECT ALLIANCE.

ODU GROUP OVERVIEW

- More than 80 years of experience in connector technology
- Over 2,300 employees worldwide
- 10 sales subsidiaries in China, Denmark, France, Germany, Italy, Japan, Korea, Sweden, the UK and the US as well as 5 production and logistics sites
- All technologies under one roof: Design and development, machine tool and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly
- We operate in the following markets: medical, military and security, test and measurement, industrial, energy, and automotive / emobility
- As of February 2019

CERTIFIED QUALITY

- ISO 9001
- IATF 16949
- ISO 13485
- ISO 14001
- ISO 50001
- Wide range of UL, CSA, VG and VDE licenses
- UL certified cable assembly
- For a complete list of our certifications, please visit our website.

www.odu-usa.com

ODU 5 STAR CUSTOMER EXPERIENCE

1 PERSONAL ONE-TO-ONE TECHNICAL SUPPORT
2 STANDARD PRODUCTS READYLY AVAILABLE
3 CABLE ASSEMBLY INTEGRATED SOLUTIONS
4 RAPID PRODUCT DEVELOPMENT
5 CUSTOM CAPABILITIES TO MEET TECHNICAL CHALLENGES

ODU CONNECTIVITY SOLUTIONS AND CAPABILITIES

BUY ONLINE NOW
store.odu-usa.com

ORDER SAMPLES NOW
Email us at: sales@odu-usa.com

<table>
<thead>
<tr>
<th>ODU MINI-SNAP®</th>
<th>ODU MEDI-SNAP®</th>
<th>ODU MINI-MED®</th>
<th>ODU MINI-SNAP® PC</th>
<th>ODU AMC®</th>
<th>ODU AMC® High-Density</th>
<th>ODU Threaded Connector</th>
<th>ODU-MAC®</th>
<th>Electrical Contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Push-Pull locking</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Break-Away locking</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Spindle or lever locking</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-speed data transmission (&gt; 480 Mbit/s)</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical coding</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Blind mate/ blind insertion</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>360° Shielding</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watertight</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>High-mating cycles (&gt; 5,000)</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>High-mating cycles (&lt; 100,000 and more)</td>
<td>●</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vibration &amp; shock resistant</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Rack panel w/ docking frame</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threaded technology</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silicone overmold</td>
<td>●</td>
<td>●*</td>
<td>●**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Approved for ODU MEDI-SNAP® Break-Away Plugs in PSU
** Available on ODU AMC® High-Density Chrome-Plated
ODU CUSTOM CONNECTOR CAPABILITIES

EXTREME DESIGNS — PUSHING THE LIMITS
See below some of our technical capabilities that have been used for specific custom applications. We continuously work with our customers to meet the most extreme technical challenges.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Extremes ODU has achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>High current</td>
<td>2,400 A</td>
</tr>
<tr>
<td>High voltage</td>
<td>56 kV (DC) 36 kV (AC)</td>
</tr>
<tr>
<td>Water protection</td>
<td>IP67 / IP68 / IP69K / IP6K9K</td>
</tr>
<tr>
<td>Vacuum tightness</td>
<td>1 × 10⁻⁹ mbar l/s</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>Up to 300°C</td>
</tr>
<tr>
<td>Pressure</td>
<td>650 bar (9427 psi) operating receptacle / 500 bar (7251 psi) operating mated condition / 1,000 bar (14503 psi) burst</td>
</tr>
<tr>
<td>Vibration</td>
<td>VX214 Severity Level 4 (20 g, 10 – 2000 Hz, 22 h) Four-time multisinus per three-dimensional axis (16 g, 20 – 2000 Hz, 65 h per axis)</td>
</tr>
<tr>
<td>Mating cycles</td>
<td>&gt; 1 Million</td>
</tr>
<tr>
<td>Hydraulic connection</td>
<td>25 bar (362 psi) operating</td>
</tr>
<tr>
<td>Pneumatic connection</td>
<td>20 bar (290 psi) operating</td>
</tr>
<tr>
<td>Fiber optic</td>
<td>&lt; 1 dB typical @ 100,000 mating cycles single mode/multimode</td>
</tr>
<tr>
<td>Magnetic permeability</td>
<td>Magnetic permeability μr &lt; 1.0005</td>
</tr>
<tr>
<td>Environmental</td>
<td>Salt spray / fog, chemical resistance, UV, Arizona dust, radiation, sterilization</td>
</tr>
<tr>
<td>Shock</td>
<td>1,000 g</td>
</tr>
<tr>
<td>Contact density</td>
<td>1 contact/mm²</td>
</tr>
<tr>
<td>Smallest contact diameter</td>
<td>0.3 mm</td>
</tr>
<tr>
<td>Smallest circular connector diameter</td>
<td>5 mm</td>
</tr>
<tr>
<td>On driving test</td>
<td>Electric vehicle adapter</td>
</tr>
<tr>
<td>Self finding solutions</td>
<td>+/- 5 mm float (shield and tight)</td>
</tr>
</tbody>
</table>

1 These ODU specific connectors can transmit common data transmission protocols such as USB® 3.2 Gen 1x1 and HDMI®, but they are not USB®- or HDMI®-standard connectors.

ODU PRODUCT AVAILABILITY

<table>
<thead>
<tr>
<th>CIRCULAR</th>
<th>MODULAR</th>
<th>ELECTRICAL CONTACTS</th>
<th>CUSTOM SOLUTIONS</th>
<th>CABLE ASSEMBLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email us at: <a href="mailto:sales@odu-usa.com">sales@odu-usa.com</a> or call 805.484.0540</td>
<td>Visit us at: store.odu-usa.com</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ODU AMC® PUSH-PULL

- 70 % weight and size reduction
- Cable assembly solutions
- IP68 (20 m submersion)
- Chrome plated version available
- USB® 3.2 Gen 1x1 + USB® 2.0 + HDMI® + Ethernet

<table>
<thead>
<tr>
<th>Pin and groove</th>
<th>00</th>
<th>4</th>
<th>9.8</th>
<th>5.0</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin and groove</td>
<td>1</td>
<td>14.8</td>
<td>8.5</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Pin and groove</td>
<td>1.5</td>
<td>16.8</td>
<td>10.5</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

ODU AMC® HIGH-DENSITY

- High vibration resistance
- High speed data transfer
- High contact density: 2–16 contacts / 2 sizes
- > 5,000 mating cycles
- IP68 and IP6K9K
- High speed data technology
- Quick and easy mating and locking

<table>
<thead>
<tr>
<th>Pin and groove</th>
<th>00</th>
<th>4</th>
<th>9.8</th>
<th>5.0</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin and groove</td>
<td>1</td>
<td>14.0</td>
<td>5.5</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Pin and groove</td>
<td>1.5</td>
<td>16.5</td>
<td>8.0</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Pin and groove</td>
<td>2</td>
<td>19.6</td>
<td>10.0</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Pin and groove</td>
<td>3</td>
<td>23.9</td>
<td>11.5</td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>

ODU AMC® EASY-CLEAN

- Fast and easy cleaning
- Break-Away function
- > 5,000 mating cycles
- Contact inserts with pogo pins

<table>
<thead>
<tr>
<th>Pin and groove</th>
<th>00</th>
<th>4</th>
<th>11.9</th>
<th>5.5</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin and groove</td>
<td>1</td>
<td>13.9</td>
<td>6.5</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Pin and groove</td>
<td>1.5</td>
<td>16.9</td>
<td>8.0</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Pin and groove</td>
<td>2</td>
<td>17.6</td>
<td>10.0</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Pin and groove</td>
<td>3</td>
<td>21.9</td>
<td>11.5</td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>

ODU AMC® BREAK-AWAY

- Fast and easy cleaning
- Break-Away function
- > 5,000 mating cycles
- Contact inserts with pogo pins

<table>
<thead>
<tr>
<th>Pin and groove</th>
<th>00</th>
<th>4</th>
<th>11.9</th>
<th>5.5</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin and groove</td>
<td>1</td>
<td>13.9</td>
<td>6.5</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Pin and groove</td>
<td>1.5</td>
<td>16.9</td>
<td>8.0</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Pin and groove</td>
<td>2</td>
<td>17.6</td>
<td>10.0</td>
<td>26</td>
<td></td>
</tr>
</tbody>
</table>

ODU AMC® PUSH-PULL, EASY-CLEAN, BREAK-AWAY, HIGH-DENSITY, THREADED CONNECTOR
**Coding Sizes**

<table>
<thead>
<tr>
<th>No. of possible mechanical coding</th>
<th>Diameter plug (mm)</th>
<th>Max. cable diameter (mm)</th>
<th>Max. no. of contacts</th>
<th>Solder</th>
<th>Crimp</th>
<th>Print</th>
<th>IP Class in mated condition</th>
<th>IP Class in unmated condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>• IP50</td>
<td>0</td>
<td>9</td>
<td>5.6</td>
<td>10</td>
<td></td>
<td></td>
<td>Up to IP50</td>
<td>• IP50 and IP64</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>11.5</td>
<td>7.7</td>
<td>16</td>
<td></td>
<td></td>
<td>Up to IP50</td>
<td>• Autoclavable &amp; fully sterilizable</td>
</tr>
<tr>
<td>• IEC 60601-1 compliant housings¹</td>
<td>2</td>
<td>14.5</td>
<td>9.9</td>
<td>26</td>
<td></td>
<td></td>
<td>Up to IP50</td>
<td>• Touch proof according to IEC-60664-1</td>
</tr>
<tr>
<td>• Right angle version available</td>
<td>3</td>
<td>17.5</td>
<td>11.9</td>
<td>30</td>
<td></td>
<td></td>
<td>Up to IP50</td>
<td>• High voltage insert up to 1,000 V AC</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>25.0</td>
<td>16.0</td>
<td>40</td>
<td></td>
<td></td>
<td>Up to IP50</td>
<td>• 2X HV, 2X Signal interlock, 1X Ground/FMLB</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Nominal voltage up to 1,000 V AC &amp; 16 A</td>
</tr>
</tbody>
</table>

| Pin and groove                  |                  |                          |                     |        |      |      |                              | • Space saving design          |
|                                 |                  |                          |                     |        |      |      |                              | • Pre-assembled solution       |
|                                 |                  |                          |                     |        |      |      |                              | • Up to 1,000 mating cycles    |

| Pin and groove                  |                  |                          |                     |        |      |      |                              | • Touch proof according to IEC-60664-1 |
|                                 |                  |                          |                     |        |      |      |                              | • Hot-Plugging prevention      |
|                                 |                  |                          |                     |        |      |      |                              | • 2X HV, 2X Signal interlock, 1X Ground/FMLB |
|                                 |                  |                          |                     |        |      |      |                              | • Nominal voltage up to 1,000 V AC & 16 A |

| Pin and groove                  |                  |                          |                     |        |      |      |                              | • Plastic connector           |
|                                 |                  |                          |                     |        |      |      |                              | • Up to IP50                   |
|                                 |                  |                          |                     |        |      |      |                              | • Shielded version available   |

1 These ODU specific connectors can transmit common data transmission protocols such as USB® 3.1 Gen 1 and USB® 2.0, but they are not USB®-standard connectors.

**NEW!**

![New Product Images]
**ODU MODULAR / RECTANGULAR CONNECTOR PORTFOLIO**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mating cycles</td>
<td>&gt; 100,000</td>
<td>&gt; 100,000</td>
<td>&gt; 100,000</td>
<td>&gt; 10,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Automatic docking</td>
<td>6 Frame varieties,</td>
<td>3 Sizes</td>
<td>1 Frame variety,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quick-change head option</td>
<td>Quick change head option</td>
<td>4 sizes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locking</td>
<td>Spindle / lever locking</td>
<td>Snap-In (ZERO)</td>
<td>Spindle / lever locking</td>
<td>Push-locking</td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>Metal frame</td>
<td>3 housing varieties available in plastic and metal</td>
<td>Available in plastic and metal</td>
<td>Available in plastic and metal</td>
<td>Plastic sleeve / Metal frame</td>
</tr>
<tr>
<td>Strain relief</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Highest packing density on the market</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Non-magnetic version</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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</tbody>
</table>

**VARIETY OF MODULES**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal</td>
<td>Up to 27 A / 1.5 mm²</td>
<td>Up to 27 A / 1.5 mm²</td>
<td>Up to 27 A / 1.5 mm²</td>
<td>Up to 33 A / 2.5 mm²</td>
<td>Up to 33 A / 2.5 mm²</td>
</tr>
<tr>
<td>Power</td>
<td>Up to 119 A / 16 mm²</td>
<td>Up to 119 A / 16 mm²</td>
<td>Up to 119 A / 16 mm²</td>
<td>Up to 58 A / 6 mm²</td>
<td>Up to 58 A / 6 mm²</td>
</tr>
<tr>
<td>High-current</td>
<td>Up to 225 A / 50 mm²</td>
<td>Up to 225 A / 50 mm²</td>
<td>Up to 225 A / 50 mm²</td>
<td>Up to 225 A / 50 mm²</td>
<td>Up to 225 A / 50 mm²</td>
</tr>
<tr>
<td>High-voltage</td>
<td>Up to 6.3 kV / 1.5 mm²</td>
<td>Up to 2.5 kV / 1.5 mm²</td>
<td>Up to 6.3 kV / 1.5 mm²</td>
<td>Up to 2.5 kV / 6 mm²</td>
<td>Up to 2.5 kV / 6 mm²</td>
</tr>
<tr>
<td>Coax</td>
<td>Up to 9.0 GHz</td>
<td>Up to 9.0 GHz</td>
<td>Up to 9.0 GHz</td>
<td>Up to 12 GHz</td>
<td>Up to 12 GHz</td>
</tr>
<tr>
<td>Compressed air</td>
<td>Up to 25 bar</td>
<td>Up to 25 bar</td>
<td>Up to 25 bar</td>
<td>Up to 16 bar</td>
<td>Up to 16 bar</td>
</tr>
<tr>
<td>Fluid</td>
<td>Up to 25 bar</td>
<td>Up to 25 bar</td>
<td>Up to 25 bar</td>
<td>Up to 16 bar</td>
<td>Up to 16 bar</td>
</tr>
<tr>
<td>Fiber optic POF / GDF</td>
<td>●</td>
<td>●</td>
<td>● (GOF only on request)</td>
<td>● (GOF only on request)</td>
<td></td>
</tr>
<tr>
<td>Optional pin protection</td>
<td>Module can be freely positioned</td>
<td>Module can be freely positioned</td>
<td>Integrated with 20-pin signal module</td>
<td>Integrated with 20-pin signal module</td>
<td></td>
</tr>
<tr>
<td>Termination technology</td>
<td>Crimp / solder / print</td>
<td>Crimp / solder</td>
<td>Crimp / solder / print</td>
<td>Crimp / solder / print</td>
<td>Crimp / solder / print</td>
</tr>
</tbody>
</table>

*These ODU specific connectors can transmit common data transmission protocols such as USB® and HDMI®, but they are not USB® or HDMI®-standard connectors.

*Exceeds market standards
### ODU ELECTRICAL CONTACT PORTFOLIO

<table>
<thead>
<tr>
<th>Contact technology</th>
<th>ODU SPRINGTAC®</th>
<th>ODU SPRINGTAC® Flatsocket</th>
<th>ODU LAMTAC®</th>
<th>ODU TURNTAC®</th>
<th>ODU STAMPTAC®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact security</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
<td>● ● ● ● ● ● ● ● ● ● ●</td>
</tr>
<tr>
<td>Contact diameter</td>
<td>From 0.76 mm</td>
<td>From 0.64 x 0.64 mm</td>
<td>From Ø 1.5 mm</td>
<td>From Ø 1.5 mm</td>
<td>Ø 3 and Ø 6 mm</td>
</tr>
<tr>
<td>Mating cycles</td>
<td>&gt; 100,000 (up to 1 million)</td>
<td>&gt; 50,000</td>
<td>&gt; 10,000</td>
<td>&gt; 10,000</td>
<td>&gt; 10,000</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>–40°C to +125°C</td>
<td>–40°C to +125°C</td>
<td>–40°C to +125°C</td>
<td>–40°C to +125°C</td>
<td>–40°C to +125°C</td>
</tr>
<tr>
<td>High temperature range</td>
<td>Up to +150°C</td>
<td>Up to +150°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surfaces</td>
<td>Ag / Au</td>
<td>Ag / Au</td>
<td>Ag / Au</td>
<td>Ag / Au</td>
<td>Ag / Au</td>
</tr>
<tr>
<td>Termination technologies</td>
<td>Crimp / screw / solder</td>
<td>Crimp</td>
<td>Crimp / screw / solder</td>
<td>Crimp / screw / solder</td>
<td>Crimp</td>
</tr>
<tr>
<td>Current (6 mm) per IEC 60512-5-2:2002</td>
<td>100 A</td>
<td>130 A</td>
<td>100 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angular misalignment</td>
<td>+/- 1°</td>
<td>+/- 1°</td>
<td>Up to 5°</td>
<td>+/- 1°</td>
<td></td>
</tr>
<tr>
<td>Contact material</td>
<td>CuSn alloy or CuBe</td>
<td>CuBe alloy</td>
<td>CuZnPb</td>
<td>CuSn alloy</td>
<td></td>
</tr>
<tr>
<td>Primary attribute</td>
<td>High mating cycles</td>
<td>Test &amp; Measurement</td>
<td>High current</td>
<td>High volume</td>
<td>High volume</td>
</tr>
<tr>
<td>Points of contact</td>
<td>360° circular</td>
<td>Single or double sided</td>
<td>360° circular</td>
<td>1,2,4,6 Tines circular</td>
<td>2,4,6 Tines circular</td>
</tr>
</tbody>
</table>

**Contact technology**
- Springwire technology
- Lamella technology
- Turned, slotted contacts
- Stamping technology

**Contact security**
- High security

**Contact diameter**
- From 0.76 mm
- From 0.64 x 0.64 mm
- From Ø 1.5 mm
- From Ø 1.5 mm
- Ø 3 and Ø 6 mm

**Mating cycles**
- > 100,000 (up to 1 million)
- > 50,000
- > 10,000
- > 10,000
- > 10,000

**Operating temperature range**
- –40°C to +125°C
- –40°C to +125°C
- –40°C to +125°C
- –40°C to +125°C
- –40°C to +125°C

**High temperature range**
- Up to +150°C

**Surfaces**
- Ag / Au

**Termination technologies**
- Crimp / screw / solder

**Current (6 mm) per IEC 60512-5-2:2002**
- 100 A
- 130 A
- 100 A

**Angular misalignment**
- +/- 1°
- +/- 1°
- Up to 5°
- +/- 1°

**Contact material**
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- CuBe alloy
- CuZnPb
- CuSn alloy

**Primary attribute**
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- Test & Measurement
- High current
- High volume

**Points of contact**
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- Single or double sided
- 360° circular
- 1,2,4,6 Tines circular
- 2,4,6 Tines circular

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**ODU AUTOMOTIVE CONNECTOR SOLUTIONS**

**ODU SPRINGTAC®**
- Flatsocket

**ODU LAMTAC®**
- ODU TURNTAC®
- ODU STAMPTAC®

**Contact technology**
- Lamella technology
- Turned, slotted contacts
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- 360° circular
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**ODU POWER MATE® 400**
- Low Profile
- High Voltage
- Up to 400 A
- Up to 1000 V
- Up to 95 mm² cable
- Extremely low profile
- Ideal for HV battery / inverter applications specifically where space is critical

**ODU DOCKING MATE®**
- Tolerance compensating connector systems enable a wide range of applications
- Compensation of tolerances up to +/- 5 mm possible
- Custom power & signal combinations available
- Ideal for hot swapping / blind mating applications

**ODU GEN2 – 2 POLE HV CONNECTOR SYSTEM**
- Trouble-free: Shielding attenuation > 60 db
- Tested: As per the requirements of LV215
- Sealing: IP51K9K sealing class

**ODU IEC CHARGING CONNECTOR**
- Rugged ODU TURNTAC® contact system suitable for harsh environments
- Rated up to 10,000 cycles
- Mating possible at angle of up to 5° making this an ideal contact for charging applications
- Custom charging handles available upon request

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[FOR MORE INFORMATION](http://www.oduautomotive.com)
CUSTOM COMPONENT OVERMOLD
(Custom Requirement)

POTTING AND ENVIRONMENTAL SEALING

CUSTOMIZED CONNECTOR SOLUTIONS

OVERMOLDS WITH SILICONE, TPE, TPU & TPV

FLEX LAYER ASSEMBLY

ODU TESTING & QUALITY

• In-process checking
• Data rate testing
• 100% final inspection
• EMC compatible assembly
• Potting and environmental sealing
• IPC/WHMA-A-620
• Production possible in cleanroom in accordance with EN ISO 14644-1

NON ODU CONNECTORS
• High-speed standard connectors such as: USB® 3.2 Gen 1x1¹, USB® 2.0, HDMI®² and Ethernet CAT 5
• Military and medical connectors
• Wire to board connectors

¹ODU specific connectors can transmit common data transmission protocols such as USB® 3.2 Gen 1x1, USB® 2.0, and HDMI®, but they are not USB®- or HDMI®-standard connectors.

ODU TESTING & QUALITY

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ODU CABLE ASSEMBLY SOLUTIONS & CONNECTORS FROM ONE SOURCE

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ASK OUR ENGINEERS
Email us at: sales@odu-usa.com
ODU CABLE ASSEMBLY SERVICES
WORLDWIDE PRESENCE SERVING LOCAL MARKETS

ODU NORTH AMERICA CABLE ASSEMBLY FACILITY

VALUE ADDED SERVICES
The ODU North America facility specializes in rapid prototyping and projects ranging from medium to large sized volumes.

ODU COMPLETE CABLE ASSEMBLY SOLUTIONS ACROSS MULTIPLE MARKETS:

- MEDICAL
- MILITARY AND SECURITY
- TEST AND MEASUREMENT
- AUTOMOTIVE

ODU SILICONE CABLE ASSEMBLY SOLUTIONS

CUSTOMER BENEFITS
- One-to-one technical support
- Global & regional footprint
- Rapid product development
- Vertically integrated connector manufacturer

ODU NORTH AMERICA CAPABILITIES
- Environmenally controlled presurized workroom
- Dedicated silicone overmold work area
- ARBURG ALLROUNDER 275 V:
  - Vertical free-space system
  - Clamping force: 28 tones
  - Injection unit: 1.4 oz, 2.3 oz
- Cleanroom EN ISO 14644-1
- ISO 13485
- Tool shop customized molds
- Electroplating shop: The turned or stamped contact can be coated based on customer requirements
- On-site laboratory
- On-site technology test center

ODU INTERNATIONAL CAPABILITIES
- Individual laser labeling possible
- Various standard overmolding inserts available
- Halogen and latex-free

TEST AND VALIDATION
- Cytotoxicity test according to DIN EN ISO 10993-5
- Management system certified according to ISO 9001
- Documentation of tests available
- High-voltage and insulation tests
- Functional and component tests for cable systems
- Runtime measurement
- Tensile strength tests
- Torsional and bending fatigue tests
- Leakage tests for molded components

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*(Available upon request)