A PERFECT ALLIANCE.

ODU GROUP OVERVIEW
- More than 80 years of experience in connector technology
- Over 2,300 employees worldwide
- 18 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 CONNECTIVITY SOLUTIONS AND CAPABILITIES

BUY ONLINE NOW
store.odu-usa.com

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

ODU MINI-SNAP®
ODU MEDI-SNAP®
ODU MINI-MED®
ODU MINI-SNAP® PC
ODU AMC®
ODU AMC® High-Density
ODU Threaded Connector
ODU-MAC®

| Push-Pull locking | • | • | • | • |
| Break-Away locking | • | • | • | • | • | • |
| Spindle or lever locking | • |
| High-speed data transmission (> 480 Mbit/s) | • |
| Mechanical coding | • | • | • | • | • | • |
| Blind mate/ blind insertion | • | • | • | • | • | • |
| 360° Shielding | • | • | • | • |
| Watertight | • | • | • | • | • |
| High-mating cycles (> 5,000) | • | • |
| High-mating cycles (< 100,000 and more) | • | • |
| Vibration & shock resistant | • | • | • | • | • | • |
| Rack panel w/ docking frame | • |
| Threaded technology | • |
| Silicone overmold | • | • | • | • |

* Approved for ODU MEDI-SNAP® Break-Away Plugs in PSU
** Available in 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.

ODU PRODUCT AVAILABILITY

CONTACT OUR ENGINEERING TEAM
Email us at: myapplications@odu-usa.com

<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</td>
</tr>
<tr>
<td>Vacuum tightness</td>
<td>1 × 10⁻⁹ mbar l/s</td>
</tr>
<tr>
<td>Salt spray</td>
<td>700 hours</td>
</tr>
<tr>
<td>EMC / EMI protection</td>
<td>&gt; 75 dB (0 – 5 MHz) / &gt; 65 dB (5 MHz – 500 MHz)</td>
</tr>
<tr>
<td>High speed data rate</td>
<td>USB® 3.2 Gen 1x1 – 5 Gbit/s² / HDMI® – 14.4 Gbit/s² / 10 Gbit Ethernet – 10 Gbit/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>1x24 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>Matting 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 Ø 100,000 matting 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

Visit us at store.odu-usa.com

Email us at sales@odu-usa.com or call 805.484.0540

CONNECTOR
ODU DIRECT SALES
ODU WEBSTORE
ODU DISTRIBUTION

CIRCULAR
MODULAR
ELECTRICAL CONTACTS
CUSTOM SOLUTIONS
CABLE ASSEMBLY

ODU HIGH-DENSITY & LIGHTWEIGHT CONNECTOR PORTFOLIO

FAST SAMPLE AVAILABILITY
Email us at: sales@odu-usa.com

RAPID CABLE ASSEMBLY
MANUFACTURING

ODU THREADS SELECTOR
ODU AMC® PUSH-PULL
ODU AMC® BREAK-AWAY
ODU AMC® EASY-CLEAN
ODU AMC® HIGH-DENSITY
ODU AMC® HIGH-DENSITY SCREW-LOCK
ODU AMC® HIGH-DENSITY CHROME-PLATED

NEW!

ODU AMC® High-Density Screw-Lock

- 70% weight and size reduction
- Cable assembly solutions
- IP6K8 (20 submersion)
- Chromed aluminum version available
- USB® 3.2 Gen 1x1 + USB® 2.0 + HDMI® + Ethernet

ODU AMC® Push-Pull

- High vibration resistance
- High speed data transfer
- IP6K8
- High contact density: 2–16 contacts / 2 sizes

ODU AMC® Break-Away

- IP6K8 / IP69K
- > 5,000 mating cycles
- High speed data technology
- Quick and easy mating and locking

ODU AMC® Easy Clean

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

ODU AMC® High-Density

- Contact inserts with pogo pins
- > 5,000 mating cycles
- IP68 / IP6K9K
- High speed data technology
- > 5,000 mating cycles
- IP68 / IP6K9K

Requirements Extremes ODU has achieved

- USB® 3.2 Gen 1x1 – 5 GBit/s¹
- HDMI® – 14.4 Gbit/s¹
- USB® 2.0
- Multi-mode fiber optic connection: < 1 dB typical @ 100,000 mating cycles
- Pneumatic connection: 20 bar (290 psi) operating
- Hydraulic connection: 25 bar (362 psi) operating
- High current: 2,400 A
- High voltage: 56 kV (DC) 36 kV (AC)
- Vacuum tightness: 1 × 10⁻⁹ mbar l/s
- Salt spray: 700 hours
- EMC / EMI protection: > 75 dB (0 – 5 MHz) / > 65 dB (5 MHz – 500 MHz)
- High speed data rate: USB® 3.2 Gen 1x1 – 5 Gbit/s² / HDMI® – 14.4 Gbit/s² / 10 Gbit Ethernet – 10 Gbit/s
- Operating temperature: Up to 300 °C
- Pressure: 650 bar (9427 psi) operating receptacle / 500 bar (7251 psi) operating mated condition / 1,000 bar (14503 psi) burst
- Vibration: 1x24 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)
- Matting cycles: > 1 Million
- Hydraulic connection: 25 bar (362 psi) operating
- Pneumatic connection: 20 bar (290 psi) operating
- Fiber optic: < 1 dB typical Ø 100,000 matting cycles single mode/multimode
- Magnetic permeability: Magnetic permeability μr < 1.0005
- Environmental: Salt spray / fog, chemical resistance, UV, Arizona dust, radiation, sterilization
- Shock: 1,000 g
- Contact density: 1 contact/mm²
- Smallest contact diameter: 0.3 mm
- Smallest circular connector diameter: 5 mm
- On driving test: Electric vehicle adapter
- Self finding solutions: +/- 5 mm float (shield and tight)

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 MINI-SNAP® L SERIES

<table>
<thead>
<tr>
<th>Coding</th>
<th>Sizes</th>
<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></td>
<td>4</td>
<td></td>
<td>6.4</td>
<td>3.5</td>
<td>06</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td></td>
<td>9</td>
<td>5.6</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>11.5</td>
<td>7.7</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>14.5</td>
<td>9.9</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>17.5</td>
<td>11.8</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
<td>25.0</td>
<td>16.0</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- IP50, 5,000 mating cycles
- Hermetically sealed option
- USB® 3.1 Gen 1 + USB® 2.0 + Ethernet

## ODU MINI-SNAP® K SERIES

<table>
<thead>
<tr>
<th>Coding</th>
<th>Sizes</th>
<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></td>
<td>8</td>
<td></td>
<td>11.0</td>
<td>5.0</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td></td>
<td>13.0</td>
<td>7.0</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>16.0</td>
<td>9.0</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>19.0</td>
<td>10.5</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>25.0</td>
<td>14.0</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- IP50, 5,000 mating cycles
- USB® 2.0 + Ethernet

## ODU MINI-SNAP® B SERIES

<table>
<thead>
<tr>
<th>Coding</th>
<th>Sizes</th>
<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></td>
<td>8</td>
<td></td>
<td>9.4</td>
<td>5.0</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td></td>
<td>12.0</td>
<td>7.0</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>15.0</td>
<td>9.0</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>18.0</td>
<td>10.5</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- IP50, 5,000 mating cycles
- USB® 2.0 + Ethernet

## ODU MINI-SNAP® S SERIES

<table>
<thead>
<tr>
<th>Coding</th>
<th>Sizes</th>
<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>Insulator</td>
<td>1  1</td>
<td></td>
<td>9.4</td>
<td>5.0</td>
<td>04</td>
<td></td>
<td></td>
<td></td>
<td>Up to IP68</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>12.0</td>
<td>7.0</td>
<td>06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- IP50 and IP68
- Coax and triax

## ODU MINI-SNAP® F SERIES

<table>
<thead>
<tr>
<th>Coding</th>
<th>Sizes</th>
<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>Half shell</td>
<td>3  3</td>
<td></td>
<td>9.4</td>
<td>5.0</td>
<td>09</td>
<td></td>
<td></td>
<td></td>
<td>Up to IP68</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>12.0</td>
<td>7.5</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td></td>
<td>13.0</td>
<td>7.5</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>15.0</td>
<td>9.5</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>18.0</td>
<td>11.5</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- IP50 and IP68
- 5,000 mating cycles
- Ethernet

---

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.

---

## ODU MINI-SNAP® HERMETICALLY SEALED

<table>
<thead>
<tr>
<th>Coding</th>
<th>Sizes</th>
<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></td>
<td>0</td>
<td></td>
<td>9</td>
<td>5.6</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>11.5</td>
<td>7.7</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>14.5</td>
<td>9.9</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>17.5</td>
<td>11.8</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td>### IP50</td>
<td>Up to IP68</td>
</tr>
</tbody>
</table>

---

## ODU MINI-SNAP® HIGH-VOLTAGE

- IP50 and IP54
- Autoclavable & fully sterilizable
- High voltage insert up to 1,000 V AC
- IEC 60601-1 compliant housings
- Right angle version available

---

## ODU MINI-SNAP® PUSH-PULL

- IP54 and IP64
- Autoclavable
- Break-Away for minimum of 2,000 mating cycles

---

## ODU MINI-SNAP® BREAK-AWAY

- IP64 / IP67
- Autoclavable
- Break-Away for minimum of 2,000 mating cycles

---

## ODU MINI-SNAP® HIGH-VOLTAGE

- 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

---

## ODU MINI-SNAP® PLASTIC CONNECTOR PORTFOLIO

- Space saving design
- Pre-assembled solution
- Up to 1,000 mating cycles

---

## ODU MINI-MED®

- Plastic connector
- IP50 and IP67
- Shielded version available

---

## ODU MINI-SNAP® FPC

- Plastic connector
- IP50 and IP67
- Shielded version available

---

1 Up to 2 MOPP / 2 MOOP
# ODU MODULAR / RECTANGULAR CONNECTOR PORTFOLIO

<table>
<thead>
<tr>
<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>
</tr>
<tr>
<td>Automatic docking</td>
<td>6 Frame varieties,</td>
<td>3 Sizes</td>
<td>1 Frame variety,</td>
<td>Push-locking</td>
</tr>
<tr>
<td></td>
<td>Quick-change head option</td>
<td>Quick change head option</td>
<td>4 sizes</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>
</tr>
<tr>
<td>Housing</td>
<td>Metal frame</td>
<td>Available in plastic and metal</td>
<td>Available in plastic and metal</td>
<td>Plastic Plastic sleeve / Metal frame</td>
</tr>
<tr>
<td>Strain relief</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>
</tr>
<tr>
<td>Non-magnetic version</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

## VARIETY OF MODULES

<table>
<thead>
<tr>
<th>Signal</th>
<th>Power</th>
<th>High current</th>
<th>High voltage</th>
<th>Coax</th>
<th>Compressed air</th>
<th>Fluid</th>
<th>Fiber optic POF / GOF</th>
<th>Transfer rates / high-speed</th>
<th>Optional pin protection</th>
<th>Termination technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 27 A / 1.5 mm²</td>
<td>Up to 119 A / 16 mm²</td>
<td>Up to 225 A / 50 mm²</td>
<td>Up to 6.3 kV / 1.5 mm²</td>
<td>Up to 9.0 GHz</td>
<td>Up to 25 bar</td>
<td>Up to 25 bar</td>
<td>●</td>
<td>CAT S6 / USB® / HDMI®</td>
<td>Module can be freely positioned</td>
<td>Crimp / solder / print</td>
</tr>
<tr>
<td>Up to 27 A / 1.5 mm²</td>
<td>Up to 119 A / 16 mm²</td>
<td>Up to 225 A / 50 mm²</td>
<td>Up to 6.3 kV / 1.5 mm²</td>
<td>Up to 9.0 GHz</td>
<td>Up to 25 bar</td>
<td>Up to 25 bar</td>
<td>●</td>
<td>CAT S6 / USB® / HDMI®</td>
<td>Module can be freely positioned</td>
<td>Crimp / solder / print</td>
</tr>
<tr>
<td>Up to 27 A / 1.5 mm²</td>
<td>Up to 119 A / 16 mm²</td>
<td>Up to 225 A / 50 mm²</td>
<td>Up to 6.3 kV / 1.5 mm²</td>
<td>Up to 9.0 GHz</td>
<td>Up to 25 bar</td>
<td>Up to 25 bar</td>
<td>●</td>
<td>CAT S6 / USB® / HDMI®</td>
<td>Integrated with 20-pin signal module</td>
<td>Crimp / solder / print through PCB termination modules</td>
</tr>
<tr>
<td>Up to 33 A / 2.5 mm²</td>
<td>Up to 119 A / 16 mm²</td>
<td>Up to 225 A / 50 mm²</td>
<td>Up to 6.3 kV / 1.5 mm²</td>
<td>Up to 9.0 GHz</td>
<td>Up to 25 bar</td>
<td>Up to 25 bar</td>
<td>●</td>
<td>CAT S6 / USB®</td>
<td>Integrated with 20-pin signal module</td>
<td>Crimp / solder / print through PCB termination modules</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

**ODU SPRINGTAC®**

- Flatsocket

**ODU SPRINGTAC®**

**ODU LAMTAC®**

**ODU TURNTAC®**

**ODU STAMPTAC®**

**ODU SPRINGTAC®**

**ODU SPRINGTAC®**

**ODU SPRINGTAC®**

**ODU SPRINGTAC®**

**ODU SPRINGTAC®**

**ODU SPRINGTAC®**

**ODU SPRINGTAC®**

**ODU SPRINGTAC®**

**ODU SPRINGTAC®**

**ODU SPRINGTAC®**

- ODU LAMTAC®

- ODU TURNTAC®

- ODU STAMPTAC®

Contact technology

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

Contact security

- ● ● ● ● ● ● ● ● ● ● ●

Contact diameter

- From 0.76 mm
- From 0.64 x 0.64 mm
- From 1.5 mm
- From 1.5 mm
- 3 and 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 +300°C (on request)
- Up to +150°C

Surfaces

- Ag / Au
- Ag / Au
- Ag / Au
- Ag / Au
- Ag / Au

Termination technologies

- Crimp / screw / solder
- Crimp
- Crimp / screw / solder
- Crimp / screw / solder
- Crimp

Current [6 mm] per IEC 60512-5-2:2002

- 100 A
- 115 A – 145 A
- 100 A

Angular misalignment

- +/- 1°
- +/- 1°
- Up to 5°
- +/- 1°

Contact material

- CuSn alloy or CuBe
- CuBe alloy
- CuZnPb
- CuSn alloy

Primary attribute

- High mating cycles
- Test & Measurement
- High current
- High volume
- High volume

Points of contact

- 360° circular
- Single or double sided
- 360° circular
- 1, 2, 4, 6 Times circular
- 2, 4, 6 Times circular

FOR MORE INFORMATION

Visit: www.oduautomotive.com

ORDER SAMPLES NOW

Email us at: sales@odu-usa.com

ODU POWER MATE® 400

- Low Profile High Voltage
- Up to 400 A
- 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: IP6K9K sealing class

I/EC 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
ODU CABLE ASSEMBLY SOLUTIONS & CONNECTORS FROM ONE SOURCE

OVERMOLDS WITH SILICONE, TPE, TPU & TPV

POTTING AND ENVIRONMENTAL SEALING

CUSTOM COMPONENT OVERMOLD (Custom Requirement)

CUSTOMIZED CONNECTOR SOLUTIONS

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 1x1, USB® 2.0, HDMI®
  and Ethernet CAT 5
- Military and medical connectors
- Wire to board connectors

1 ODU 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 CABLE ASSEMBLY SOLUTIONS & CONNECTORS FROM ONE SOURCE

REQUEST A QUOTE
Email us at sales@odu-usa.com

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
- Up to 500 autoclave cycles
- Approved LSR and HCR processes globally available
- Tested for medical technology use
- Individual laser labeling possible
- Various standard inserts available
- Halogen and latex-free

ODU NORTH AMERICA CAPABILITIES
- Environmentally controlled pressurized 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
- ISO 10993-5 CERTIFIED
- Cytotoxicity test according to DIN EN ISO 10993-5
- Management system certified according to ISO 9001
- Documentation of tests available
- Available upon request

TEST AND VALIDATION
- 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

REQUEST A QUOTE
Email us at: sales@odu-usa.com

ASK OUR ENGINEERS
Email us at: sales@odu-usa.com
A PERFECT ALLIANCE.

ODU GROUP WORLDWIDE

ODU USA
ODU-USA, Inc.
300 Camarillo Ranch Road, Suite A, Camarillo, CA 93012, United States of America
Phone: +1 805 484-0540, Fax: +1 805 484-7458, E-mail: sales@odu-usa.com

HEADQUARTERS
ODU GmbH & Co. KG
Pregelstraße 11
84453 Mühldorf a. Inn, Germany
Phone: +49 8631 6156-0
Fax: +49 8631 6156-49
E-mail: sales@odu.de
www.odu.de

SALES LOCATIONS
ODU (Shanghai) International Trading Co., Ltd.
Phone: +86 21 58347828-0
E-mail: sales@odu.com.cn
www.odu.com.cn

ODU (HK) Trading Co., Ltd.
Phone: +852 5439-9036
E-mail: sales@odu.hk
www.odu.hk

ODU Denmark ApS
Phone: +45 2233 5335
E-mail: sales@odu-denmark.dk
www.odu-denmark.dk

ODU France SARL
Phone: +33 1 3935-4690
E-mail: sales@odu.fr
www.odu.fr

ODU Italia S.R.L.
Phone: +39 331 8708847
E-mail: sales@odu-italia.it
www.odu-italia.it

ODU Japan K.K.
Phone: +81 3 6441 3210
E-mail: sales@odu.co.jp
www.odu.co.jp

ODU Korea Inc.
Phone: +82 2 6964 7181
E-mail: sales@odu-korea.kr
www.odu-korea.kr

ODU Romania Manufacturing S.R.L.
Phone: +40 269 704638
E-mail: sales@odu-romania.ro
www.odu-romania.ro

ODU Scandinavia AB
Phone: +46 176 18262
E-mail: sales@odu.se
www.odu.se

ODU-UK Ltd.
Phone: +44 330 002 0640
E-mail: sales@odu-uk.co.uk
www.odu-uk.co.uk

Further information and specialized representatives can be found at:
www.odu-usa.com/contact

All dimensions are in mm. Some figures are for illustrative purposes only. Subject to change without notice. Errors and omissions excepted. We reserve the right to change our products and their technical specifications at any time in the interest of technical improvement. This publication supersedes all prior publications. This publication is also available as a PDF file that can be downloaded from www.odu-usa.com.

www.odu-usa.com