A PERFECT ALLIANCE.

Compact modular connector system.
Up to 6,300 V, 20 bar, 10 Gbit/s, 100,000 mating cycles and 9.0 GHz.

AUTOMATIC DOCKING
MANUAL MATING

ODU-MAC® Silver-Line / White-Line

www.odu-usa.com
Look here to see exactly what our modular design looks like. For more detailed information, please visit our website or consult our ODU-MAC Silver-Line | White-Line catalogue.

2 Possible applications: automatic docking or manual mating

56 Cable hood versions

6 Different docking frames independently configurable length

4 Locking types: Snap-In [Break-Away], spindle or lever locking

5 Different spindle geometries

34 Modules to choose from: signal, power, high current, high voltage, coax, media such as air or fluid, high-speed data transmission and fibre optic

13 Variations of bulkhead mounted and surface mounted housing and various sizes of cable-to-cable-hoods

OUTSTANDING – FOR EVERY NEED:
Take a closer look at the following pages to discover for yourself the wide variety of transmission methods we offer, such as USB® 2.0, USB® 3.1 Gen1, HDMI®, FireWire®, CAT 6, and Ethernet.

1 These ODU specific connectors can transmit common data transmission protocols such as USB® 2.0, USB® 3.1 Gen1, HDMI®, FireWire®, CAT 6, and Ethernet, but they are not USB®, HDMI®, FireWire®, CAT 6, and Ethernet-standard connectors.
ODU-MAC® – ONE UNIVERSAL SOLUTION FOR A GREAT VARIETY OF APPLICATIONS

The ODU-MAC’s flexible modular design makes it possible to bring together a variety of connection types within one single contact. Whether signal, power, high current, high voltage, coax, media such as air or fluid, data transmission or fibre optic – all types can be selected from the module and integrated into the individual connector solution. The connection options are just as versatile, with many options available for a variety of applications in industrial electronics or medical technology: Examples include stable frame installation for rack and panel applications or automatic docking, as well as a robust housing version.

The result is a complete connection which is effective, compact and attractive – and unbeatable when it comes to functionality. Confusion due to multiple connections becomes a thing of the past, as a customized ODU-MAC assembly is today’s solution for meeting your requirements.

CONVINCING – THE ODU-MAC®

• ≥ 100,000 mating cycles
• Docking frame versions for automatic docking
• Robust housing versions for use in tough environments or for manual mating
• Easy housing locking with Snap-In, spindle or lever
• Multiple module options available
• Extremely compact due to high contact density
• Termination cross sections available from 0.08 mm² to 50 mm²

FOR MORE DETAILED INFORMATION, PLEASE VISIT OUR CATALOG.
YOUR CUSTOMIZED CONNECTION

The ODU-MAC is available in two basic versions: a flexible, adjustable aluminum frame for automatic docking or a version which is in the housing for manual mating. Both versions can be equipped with modules offering a wide variety of connection types – so you always receive exactly the right hybrid connection.

**ODU-MAC® Silver-Line**

**AUTOMATIC DOCKING.**

Choose from a wide variety of frames and fit them according to your specific requirements.

- **6 DOCKING FRAMES**
  - ODU-MAC® S (Standard)
  - ODU-MAC® L (Large)
  - ODU-MAC® M+ (Mini)
  - ODU-MAC® T (Transverse)
  - ODU-MAC® P+ (Power)
  - ODU-MAC® QCH (Quick change head)

Tolerance compensation available from $+/- 0.6$ mm up to $+/- 2.5$ mm available

**ODU-MAC® White-Line**

**MANUAL MATING.**

Configuration can be customized according to your wishes, offering many options which leave nothing to be desired.

- **3 TYPES OF LOCKING**
  - First, you select your lock type by choosing between Snap-In, lever and spindle locking.

- **DIFFERENT CONNECTOR HOUSINGS**
  - According to the lock you choose, you then select the housing best suited to your requirements. Numerous designs and sizes are available.

- **RECEPTACLE SELECTION**
  - Depending on your requirements for the receptacle and connector housing, you then choose between different variants.

**SPINDLE LOCKING**

Quick-action locking system with 30,000 locking cycles. Simple front replacement set (spindle exchange set) enables further mating cycles of the complete system. Module for installation in ODU-MAC frames for housings.
### SIGNAL

<table>
<thead>
<tr>
<th>Contacts</th>
<th>ContactØ</th>
<th>Operating Voltage</th>
<th>Rated Impulse Voltage</th>
<th>Max. Continuous Current</th>
<th>Mating Cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>1.02 mm</td>
<td>320 V</td>
<td>2,500 V</td>
<td>13.5 A at 0.5 mm²</td>
<td>min. 100,000</td>
</tr>
<tr>
<td>10</td>
<td>0.76 mm</td>
<td>250 V</td>
<td>1,500 V</td>
<td>11 A at 0.38 mm²</td>
<td>min. 100,000</td>
</tr>
<tr>
<td>10</td>
<td>0.7 mm</td>
<td>32 V</td>
<td>1,500 V</td>
<td>6 A at 0.38 mm²</td>
<td>min. 5,000</td>
</tr>
<tr>
<td>6</td>
<td>1.02 mm</td>
<td>400 V</td>
<td>3,000 V</td>
<td>13.5 A at 0.5 mm²</td>
<td>min. 100,000</td>
</tr>
<tr>
<td>5</td>
<td>1.5 mm</td>
<td>500 V</td>
<td>2,500 V</td>
<td>27 A at 1.5 mm²</td>
<td>min. 100,000</td>
</tr>
</tbody>
</table>

### POWER

<table>
<thead>
<tr>
<th>Contacts</th>
<th>ContactØ</th>
<th>Operating Voltage</th>
<th>Rated Impulse Voltage</th>
<th>Max. Continuous Current</th>
<th>Mating Cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2.41 mm</td>
<td>500 V</td>
<td>3,000 V</td>
<td>41 A at AWG 12</td>
<td>min. 100,000</td>
</tr>
<tr>
<td>3</td>
<td>3 mm</td>
<td>500 V</td>
<td>3,000 V</td>
<td>58 A at 6 mm²</td>
<td>min. 100,000</td>
</tr>
<tr>
<td>3</td>
<td>3 mm</td>
<td>500 V</td>
<td>3,000 V</td>
<td>58 A at 6 mm²</td>
<td>min. 100,000</td>
</tr>
<tr>
<td>2</td>
<td>5 mm</td>
<td>1,000 V</td>
<td>4,000 V</td>
<td>119 A at 16 mm²</td>
<td>min. 100,000</td>
</tr>
</tbody>
</table>

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HIGH CURRENT

- **2 contacts / Contact Ø: 8 mm**
  - Operating voltage\(^1\): 500 V
  - Rated impulse voltage\(^1\): 3,000 V
  - Max. continuous current\(^2\): 142 A at 25 mm\(^2\)
  - Mating cycles: min. 100,000

- **2 contacts / Contact Ø: 8 mm**
  - Operating voltage\(^1\): 500 V
  - Rated impulse voltage\(^1\): 3,000 V
  - Max. continuous current\(^2\): 154 A at 25 mm\(^2\)
  - Mating cycles: min. 10,000

- **1 contact / Contact Ø: 10 /12 mm**
  - Model: 10 mm / 12 mm
  - Operating voltage\(^1\): 250 V / 200 V
  - Rated impulse voltage\(^1\): 4,000 V / 3,000 V
  - Max. continuous current\(^2\): 179 A / 220 A at 35 mm\(^2\)
  - Mating cycles: min. 10,000 / min. 10,000

**HIGH VOLTAGE**

- **4 contacts**
  - Operating voltage\(^1\): 2,500 V
  - Rated impulse voltage\(^1\): 10,000 V
  - Max. continuous current\(^2\): 27 A at 1.5 mm\(^2\)
  - Mating cycles: min. 100,000

- **1 contact**
  - Operating voltage\(^1\): 6,300 V
  - Rated impulse voltage\(^1\): 20,000 V
  - Mating cycles: min. 100,000

**COAX**

- **4 contacts / 50 Ω**
  - Frequency range: 0 to 1.3 GHz
  - Mating cycles: min. 60,000

- **2 contacts / 50 Ω**
  - Frequency range: 0 to 9.0 GHz
  - Mating cycles: min. 100,000

- **2 contacts / 75 Ω**
  - Frequency range: 0 to 2.8 GHz
  - Mating cycles: min. 100,000

\(^1\) Acc. to IEC 60664-1:2007 (VDE 0110-1:2008) for degree of pollution 2. \(^2\) Definition max. continuous current see catalogue ODU-MAC Silver-Line / White-Line page 189.
**PNEUMATIC AND FLUID MODEL**

+ **2 contacts**
  - 20 bar
  - Tube termination: M5 for Push-in
  - Mating cycles: min. 100,000

+ **2 contacts**
  - 12 bar
  - Tube Ø max. 6 mm
  - Mating cycles: min. 100,000

+ **1 contact**
  - 12 bar
  - Tube Ø max. 6 mm
  - Mating cycles: min. 100,000

+ **2 contacts**
  - 10 bar
  - Tube termination: M5 for Push-in
  - Mating cycles: min. 100,000

**FIBRE OPTIC**

+ **5 contacts / POF**
  - Typical insertion loss: 1.5 dB at 670 nm
  - Mating cycles: min. 40,000

+ **2 contacts / POF**
  - Typical insertion loss: 1.5 dB at 670 nm
  - Mating cycles: min. 100,000

+ **3 contacts / GOF**
  - Single mode/multi mode
  - Mating cycles: min. 100,000

**SHIELDED IMPLEMENTATION / HIGH-SPEED CONNECTOR**

( Suitable for all common bus systems )

+ **USB® 2.0, USB® 3.1 Gen1, FireWire®, Ethernet**
  - 2 to 10 contacts / size 0
  - Mating cycles: min. 10,000
  - Selected inserts are suitable and certified for data rates of up to 5 Gbit/s

+ **USB® 2.0, Ethernet**
  - 2 to 14 contacts / size 1
  - Mating cycles: min. 10,000
  - Selected inserts are suitable and certified for data rates of up to 1 Gbit/s

+ **HDMI®, CAT 6, Ethernet**
  - 4 to 16 contacts / size 2
  - Mating cycles: min. 10,000 with springwire: min. 60,000
  - Selected inserts are suitable and certified for data rates of up to 10 Gbit/s

+ **10 to 30 contacts / size 3**
  - Mating cycles: min. 10,000
  - Selected inserts can be certified for data rates

**ADDITIONAL MODULES**

+ **Blank modules**
+ **Spacer module**
+ **Coding modules**
+ **Pin protection modules**

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