ODU-MAC® Silver-Line / White-Line

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

SHORT OVERVIEW
THE PRINCIPLE OF MODULAR DESIGN

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.

- **Possible applications:** automatic docking or manual mating
- **Cable hood versions:**
- **Different docking frames:** independently configurable length
- **Locking types:** Snap-In (Break-Away), spindle or lever locking
- **Different spindle geometries:**
- **Modules to choose from:** signal, power, high current, high voltage, coax, media such as air or fluid, high-speed data transmission and fibre optic
- **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 CATALOGUE.
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

Depending on your requirements, you can choose from 6 different frame types for your automatic docking base.

- 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.

FUNCTIONALITY
SIGNAL

14 contacts / Contact Ø: 1.02 mm
- Operating voltage: 320 V
- Rated impulse voltage: 2,500 V
- Max. continuous current: 13.5 A at 0.5 mm²
- Mating cycles: min. 100,000

10 contacts / Contact Ø: 0.76 mm
- Operating voltage: 250 V
- Rated impulse voltage: 1,500 V
- Max. continuous current: 11 A at 0.38 mm²
- Mating cycles: min. 100,000

10 contacts / Contact Ø: 0.7 mm
- Operating voltage: 32 V
- Rated impulse voltage: 1,500 V
- Max. continuous current: 6 A at 0.38 mm²
- Mating cycles: min. 5,000

6 contacts / Contact Ø: 1.02 mm
- Operating voltage: 400 V
- Rated impulse voltage: 3,000 V
- Max. continuous current: 13.5 A at 0.5 mm²
- Mating cycles: min. 100,000

5 contacts / Contact Ø: 1.5 mm
- Operating voltage: 500 V
- Rated impulse voltage: 2,500 V
- Max. continuous current: 27 A at 1.5 mm²
- Mating cycles: min. 100,000

POWER

4 contacts / Contact Ø: 2.41 mm
- Operating voltage: 500 V
- Rated impulse voltage: 3,000 V
- Max. continuous current: 41 A at AWG 12
- Mating cycles: min. 100,000

3 contacts / Contact Ø: 3 mm
- Operating voltage: 500 V
- Rated impulse voltage: 3,000 V
- Max. continuous current: 58 A at 6 mm²
- Mating cycles: min. 100,000

3 contacts / Contact Ø: 3 mm
- Operating voltage: 2,500 V
- Rated impulse voltage: 10,000 V
- Max. continuous current: 58 A at 6 mm²
- Mating cycles: min. 100,000

2 contacts / Contact Ø: 5 mm
- Operating voltage: 1,000 V
- Rated impulse voltage: 4,000 V
- Max. continuous current: 119 A at 16 mm²
- Mating cycles: min. 100,000

SIMPLY SCAN THE QR CODE TO DOWNLOAD THE ENTIRE BROCHURE.

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.
HIGH CURRENT

### 2 contacts / Contact Ø: 8 mm
- Operating voltage: 500 V
- Rated impulse voltage: 3,000 V
- Max. continuous current: 142 A at 25 mm²
- Mating cycles: min. 100,000

### 2 contacts / Contact Ø: 8 mm
- Operating voltage: 500 V
- Rated impulse voltage: 3,000 V
- Max. continuous current: 154 A at 25 mm²
- Mating cycles: min. 10,000

### 1 contact / Contact Ø: 10 / 12 mm
- Model: 10 mm / 12 mm
- Operating voltage: 10 mm / 200 V
- Rated impulse voltage: 4,000 V / 3,000 V
- Max. continuous current: 179 A / 220 A
- Mating cycles: min. 10,000 / min. 10,000

HIGH VOLTAGE

### 4 contacts
- Operating voltage: 2,500 V
- Rated impulse voltage: 10,000 V
- Max. continuous current: 27 A at 1.5 mm²
- Mating cycles: min. 100,000

### 1 contact
- Operating voltage: 6,300 V
- Rated impulse voltage: 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 / 50 Ω
- Frequency range: 0 to 2.8 GHz
- Mating cycles: min. 100,000

### 2 contacts / 75 Ω
- Frequency range: 0 to 3.0 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
  - Mating cycles min. 60,000
  - Selected inserts are suitable and certified for data rates of up to 10 Gbit/s
- **HDMI®, CAT 6a, Ethernet**
  - 4 to 16 contacts / size 2
  - Mating cycles min. 10,000
  - Selected inserts are suitable and certified for data rates of up to 10 Gbit/s
  - Mating cycles min. 60,000
- **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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