

A PERFECT ALLIANCE.



# ODU-MAC<sup>®</sup> **Blue-Line**

A new performance class.

Up to 2,500 V, 12 bar, 10 Gbit/s, >10,000 mating cycles and 4.0 GHz.

MANUAL MATING  
AUTOMATIC DOCKING

## SHORT OVERVIEW



ODU-MAC<sup>®</sup> BLUE-LINE

ODU-MAC<sup>®</sup> SILVER-LINE

ODU-MAC<sup>®</sup> WHITE-LINE

# 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 Blue-Line catalogue.

**10,000**  
Mating cycles and more

**2** Possible applications:  
manual mating or automatic docking

**53** Cable hood versions



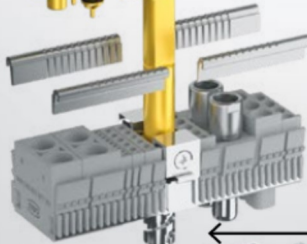
← Housing

**3** Locking types: spindle, lever and transverse locking



← Contacts for solder, crimp and print terminations

**18** Modules to choose from: signal, power, high current, coax, pneumatic, data transmission, fibre optic and PCB termination



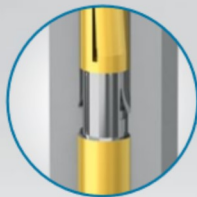
← Spindle locking

**3** Different spindle geometries



← Pin frame

Removable contacts with clip principle



← Socket frame

**12** Variations of bulkhead mounted and surface mounted housing and cable-to-cable-hoods in different sizes



← Housing

## OUTSTANDING – FOR EVERY NEED:

Take a closer look at the following pages to discover for yourself the variety of transmission methods we offer, such as USB® 2.0<sup>1</sup>, FireWire®<sup>1</sup>, CAT 6<sub>A</sub><sup>1</sup> and Ethernet<sup>1</sup>.

# THE MOST CUSTOMIZED CONNECTORS – THANKS TO THEIR MODULAR DESIGN



## ODU-MAC® BLUE-LINE – A NEW PERFORMANCE CLASS.

The economical connector system is a modular all-around talent that can be configured for the smallest installation space – available in both a plastic and a metal housing. A multitude of data transmission modules enable a broad area of application as a service and interface connector, such as in mechanical engineering, in measurement and testing, as well as in medical technology.

The simple, exceptionally user-friendly assembly and dismantling of the crimp-clip contacts, even if they have already been assembled, distinguish the ODU-MAC Blue-Line as well; a faulty clipping-in of the module is prevented via one mechanical and two optical coding functions. The cost-effective and proven ODU contact technology – turned and slotted contacts – with at least 10,000 mating cycles, as well as the simple processing of the contacts and modules, underscores the economic aspect of the system.

## ⊕ CONVINCING – THE ODU-MAC® BLUE-LINE

- High-quality, manual connector solution with a variety of housing variants
- Various locking options (spindle and lever)
- Highest packing density
- Easy handling: the simplest clip assembly and removal of the module without tools
- Simplest removal of the crimp-clip contact (when already assembled)
- Separate PCB termination module for an effective contact
- > 10,000 mating cycles
- Numerous data transmission modules

FOR MORE DETAILED INFORMATION,  
PLEASE VISIT OUR CATALOGUE.



SIMPLY SCAN THE QR CODE  
TO DOWNLOAD THE ENTIRE  
BROCHURE.

## YOUR CUSTOMIZED CONNECTION

The ODU-MAC Blue-Line is a convenient, hybrid manual-connector solution comprising a stable frame, various modules and a housing. Its modular design enables it to combine many individual connectors in one ODU-MAC Blue-Line. The proven ODU spindle locking in the new standard plastic housing provides the ODU-MAC Blue-Line with a truly unique selling point on the market.

CONFIGURE YOUR ODU-MAC BLUE-LINE  
ONLINE. SIMPLY GO TO [WWW.ODU-MAC.COM](http://WWW.ODU-MAC.COM).



## 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 spindle and lever locking.

### + DIFFERENT CONNECTOR HOUSINGS

According to the lock you choose, you then select the plastic or metal housing best suited to your requirements: cable hood, cable hood XXL or cable hood wide.

### + RECEPTACLE SELECTION

Depending on your requirements for the receptacle and connector housing, you then choose between bulkhead mounted housing, surface mounted housing or cable-to-cable hood.

## AUTOMATIC DOCKING

Depending on your requirements, there are 4 different frame lengths to choose from for automatic docking.

### + 4 DOCKING FRAMES

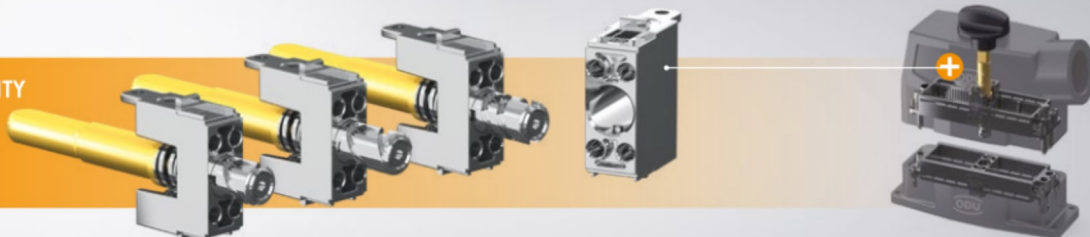
Size	Units
1	12
2	18
3	26
4	37

Tolerance compensation radial:  $\pm 0.6$  mm  
Tolerance compensation axial: min. 0.1 mm

## SPINDLE LOCKING

Quick-action locking system with 10,000 locking cycles. If required, the simple front replacement set (spindle exchange set) enables a simple adjustment of the spindle geometry. Module for installation in ODU-MAC Blue-Line frames for housings.

FUNCTIONALITY





## SIGNAL



2  
Units

### + 20 contacts / Contact $\varnothing$ : 0.7 mm

- Operating voltage<sup>1</sup> 250 V
- Rated impulse voltage<sup>1</sup> 2,000 V
- Max. continuous current<sup>2</sup> 11 A at 0.38 mm<sup>2</sup>
- Mating cycles min. 10,000



1  
Unit

### + 10 contacts / Contact $\varnothing$ : 0.7 mm

- Operating voltage<sup>1</sup> 320 V
- Rated impulse voltage<sup>1</sup> 2,500 V
- Max. continuous current<sup>2</sup> 11 A at 0.38 mm<sup>2</sup>
- Mating cycles min. 10,000



2  
Units

### + 6 contacts / Contact $\varnothing$ : 1.3 mm

- Operating voltage<sup>1</sup> 400 V
- Rated impulse voltage<sup>1</sup> 2,500 V
- Max. continuous current<sup>2</sup> 19.5 A at 1 mm<sup>2</sup>
- Mating cycles min. 10,000



3  
Units

### + 5 contacts / Contact $\varnothing$ : 2 mm

- Operating voltage<sup>1</sup> 630 V
- Rated impulse voltage<sup>1</sup> 2,500 V
- Max. continuous current<sup>2</sup> 33 A at 2.5 mm<sup>2</sup>
- Mating cycles min. 10,000

CONFIGURE YOUR ODU-MAC BLUE-LINE  
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## POWER



4  
Units

### + 3 contacts / Contact $\varnothing$ : 3.5 mm

- Operating voltage<sup>1</sup> 2,500 V
- Rated impulse voltage<sup>1</sup> 10,000 V
- Max. continuous current<sup>2</sup> 58 A at 6 mm<sup>2</sup>
- Mating cycles min. 10,000



5  
Units

### + 2 contacts / Contact $\varnothing$ : 5 mm

- Operating voltage<sup>1</sup> 400 V
- Rated impulse voltage<sup>1</sup> 4,000 V
- Max. continuous current<sup>2</sup> 108 A at 16 mm<sup>2</sup>
- Mating cycles min. 10,000



9  
Units

### + 2 contacts / Contact $\varnothing$ : 8 mm

- Operating voltage<sup>1</sup> 400 V
- Rated impulse voltage<sup>1</sup> 3,000 V
- Max. continuous current<sup>2</sup> 150 A at 25 mm<sup>2</sup>
- Mating cycles min. 10,000

## COAX



3  
Units

### + 4 contacts / 50 $\Omega$

- Frequency range 2.8 GHz
- Mating cycles min. 10,000



5  
Units

### + 2 contacts / 50 $\Omega$

- Frequency range 4 GHz
- Mating cycles min. 10,000



5  
Units

### + 2 contacts / 75 $\Omega$

- Frequency range 2.2 GHz
- Mating cycles min. 10,000



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## PNEUMATIC MODEL



5  
Units

### + 2 contacts

- 12 bar
  - Tube- $\frac{50}{61}$  inner- $\frac{50}{61}$  outer- $\frac{50}{61}$  Push-in
  - Mating cycles
- max. 4 mm  
max. 6 mm  
min. 10,000

## SHIELDED IMPLEMENTATION / HIGH-SPEED CONNECTOR

(Suitable for all common bus systems)

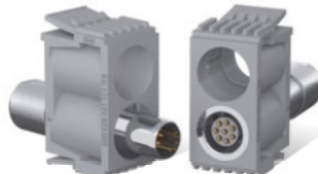


6  
Units

USB® 2.0<sup>1</sup>, FireWire®<sup>1</sup>, Ethernet<sup>1</sup>

### + 2 contacts

- Mating cycles min. 10,000
- Selected inserts are suitable and certified for data rates of up to 1 Gbit/s



6  
Units

USB® 2.0<sup>1</sup>, FireWire®<sup>1</sup>, Ethernet<sup>1</sup>

### + 1 contact

- Mating cycles min. 10,000
- Selected inserts are suitable and certified for data rates of up to 1 Gbit/s



7  
Units

Ethernet<sup>1</sup>, CAT 6<sub>A</sub><sup>1</sup>

### + 1 contact / RJ45

- Mating cycles min. 5,000
- Selected inserts are suitable and certified for data rates of up to 10 Gbit/s

## FIBRE OPTIC (UPON REQUEST)



7  
Units

### + 2 contacts / SC-insert

- Mating cycles min. 10,000
- Single mode (SM)
- Multi mode (MM)



7  
Units

### + 2 contacts / LC-insert

- Mating cycles min. 10,000
- Single mode (SM)
- Multi mode (MM)

## BLANK



1  
Unit

3  
Units

5  
Units

### + Blank modules

## PCB TERMINATION MODULES



1  
Unit

### + 10 contacts / Contact Ø: 0.7 mm

- Operating voltage<sup>2</sup> 250 V
- Rated impulse voltage<sup>2</sup> 2,500
- Max. continuous current<sup>3</sup> 7 A
- Mating cycles min. 10,000



2  
Units

### + 6 contacts / Contact Ø: 1.3 mm

- Operating voltage<sup>2</sup> 400 V
- Rated impulse voltage<sup>2</sup> 2,500 V
- Max. continuous current<sup>3</sup> 13 A
- Mating cycles min. 10,000



3  
Units

### + 5 contacts / Contact Ø: 2 mm

- Operating voltage<sup>2</sup> 630 V
- Rated impulse voltage<sup>2</sup> 2,500 V
- Max. continuous current<sup>3</sup> 25 A
- Mating cycles min. 10,000

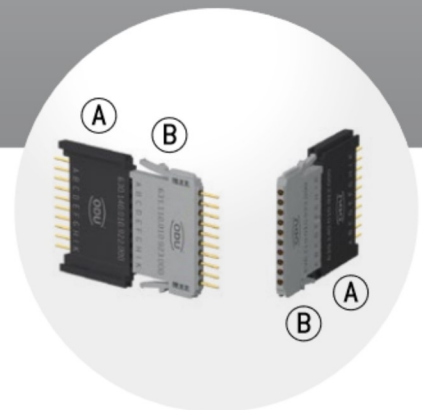
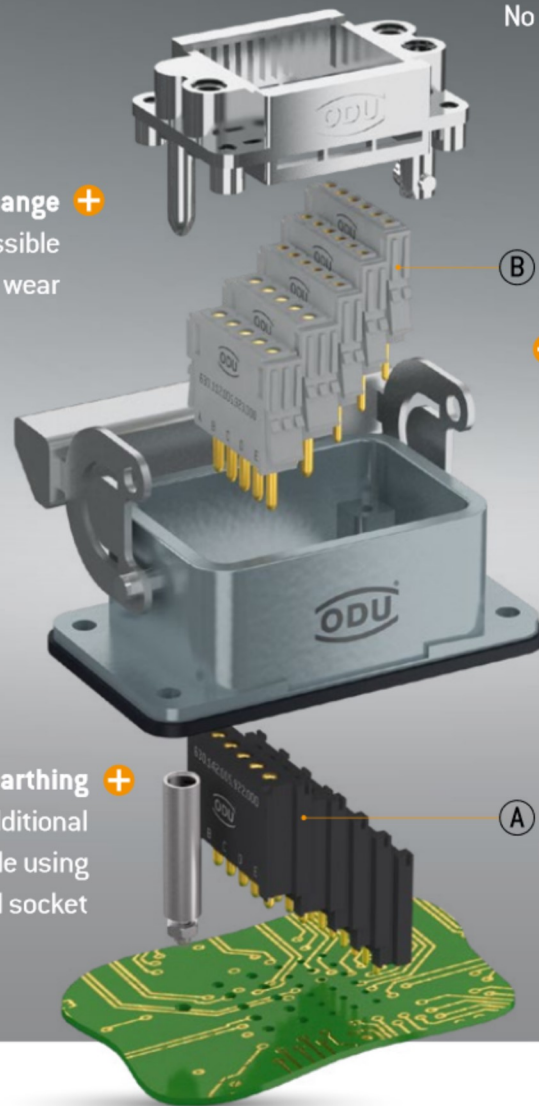
# THE PCB TERMINATION MODULES LONG SERVICE LIFE – ECONOMICAL – EASY HANDLING

**+ Economical solution**  
No cables due to the PCB termination

**+ Convenient exchange**  
Quick-change system possible  
for parts subject to wear

**+ Long service life**  
PCB termination modules  
are manufactured from  
temperature-resistant PA  
(soldering temperature 260 °C,  
30 seconds)

**+ Additional earthing**  
Upon request, additional  
earthing is possible using  
earthing pin and socket



## THE ADVANTAGES OF THE PCB TERMINATION ASSEMBLY

The PCB termination modules (A) are firmly mounted to the board and are connected via an interface to the module (B) that is plugged into the frame. If a module needs to be replaced, then only the module (B) installed in the frame must be replaced. Module (A) that is mounted on the PCB is not affected by this. An effective installation or quick-change function, as the case may be, is thereby achieved.



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**Further information and specialized representatives can be found at:**  
[www.odu-connectors.com/contact](http://www.odu-connectors.com/contact)

### PRODUCTION AND LOGISTICS SITES

**Germany** Otto Dunkel GmbH  
**China** ODU (Shanghai) Connectors Manufacturing Co.Ltd  
**Mexico** ODU Mexico Manufacturing S.R.L. de C.V.  
**Romania** ODU Romania Manufacturing S.R.L.  
**USA** ODU-USA, Inc.  
ODU North American Logistics



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