

A PERFECT ALLIANCE.

ODU-MAC[®]

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

SHORT OVERVIEW



ODU-MAC[®]

OPEN MODULAR SYSTEM



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 catalog.

2 possible applications:
automatic docking or manual mating

37 cable hood versions

6 different docking frames
independently configurable length (see page 18)

removable contacts with clip principle

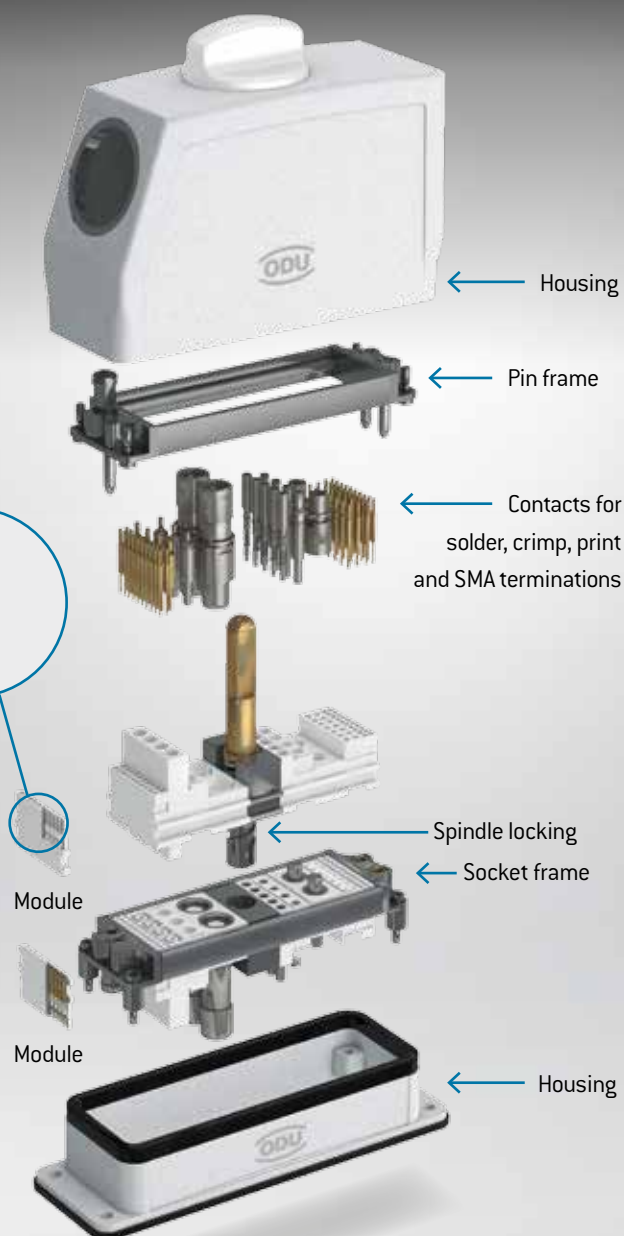
2 locking types:
spindle or lever locking

5 different spindle geometries

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

5 variations of bulkhead mounted and
surface mounted housing and various sizes
of cable-to-cable-hoods

>100,000
mating cycles



OUTSTANDING – FOR EVERY NEED:

Take a closer look at the following pages to discover for yourself the wide variety of transmission methods we offer.



Non-magnetic



FireWire



USB 3.0



CAT6_A



USB 2.0



Network



HDMI

THE MOST CUSTOMIZED CONNECTORS – THANKS TO THEIR MODULAR DESIGN



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, high-speed data transmission, fibre optic and other media such as air or fluid – 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 **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.

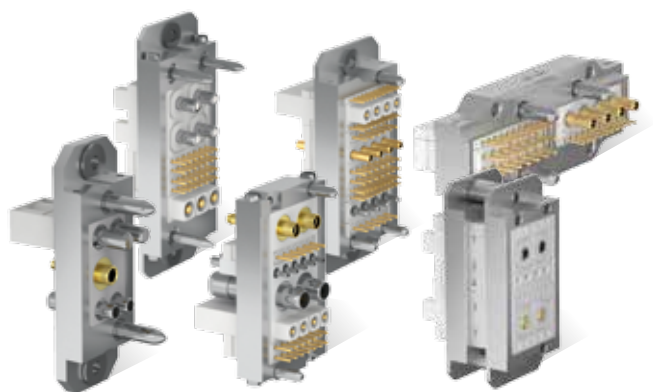


SIMPLY SCAN THE QR CODE
TO DOWNLOAD THE ENTIRE
BROCHURE.

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.

CONFIGURE YOUR ODU-MAC ONLINE.
SIMPLY GO TO WWW.ODU-MAC.COM.



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



MANUAL MATING

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

+ 2 TYPES OF LOCKING

First, you select your lock type by choosing between lever and spindle locking.

+ DIFFERENT CONNECTOR HOUSINGS

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

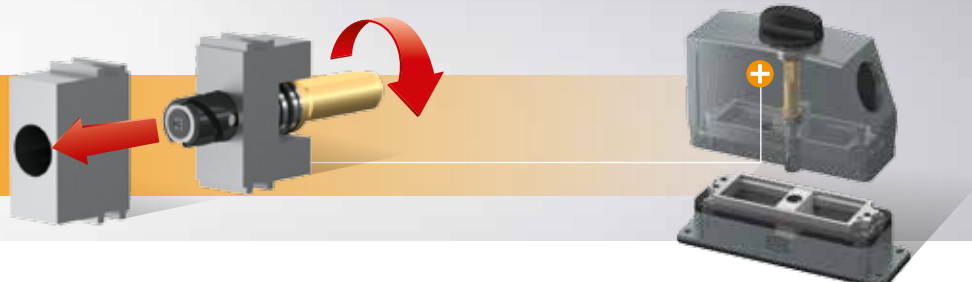
+ RECEPTACLE SELECTION

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.

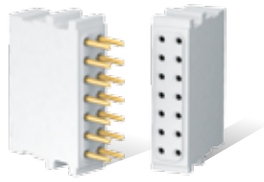
SPINDLE LOCKING

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

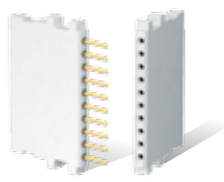


SIGNAL



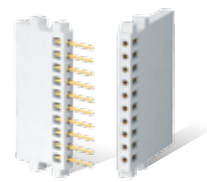
+ 14 contacts / Contact Ø: 1.02 mm

- Operating voltage¹ 320 V
- Rated impulse voltage¹ 2,500 V
- Max. continuous current² 13.5 A at 0.5 mm²
- Mating cycles min. 100,000



+ 10 contacts / Contact Ø: 0.76 mm

- Operating voltage¹ 250 V
- Rated impulse voltage¹ 1,500 V
- Max. continuous current² 11 A at 0.38 mm²
- Mating cycles min. 100,000



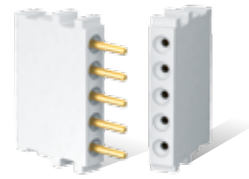
+ 10 contacts / Contact Ø: 0.7 mm

- Operating voltage¹ 32 V
- Rated impulse voltage¹ 1,500 V
- Max. continuous current² 6 A at 0.38 mm²
- Mating cycles min. 5,000



+ 6 contacts / Contact Ø: 1.02 mm

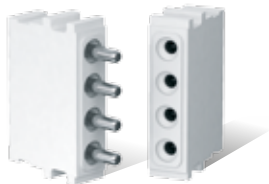
- Operating voltage¹ 400 V
- Rated impulse voltage¹ 3,000 V
- Max. continuous current² 13.5 A at 0.5 mm²
- Mating cycles min. 100,000



+ 5 contacts / Contact Ø: 1.5 mm

- Operating voltage¹ 500 V
- Rated impulse voltage¹ 2,500 V
- Max. continuous current² 27 A at 1.5 mm²
- Mating cycles min. 100,000

POWER



+ 4 contacts / Contact Ø: 2.41 mm

- Operating voltage¹ 500 V
- Rated impulse voltage¹ 3,000 V
- Max. continuous current² 41 A at AWG 12
- Mating cycles min. 100,000



+ 3 contacts / Contact Ø: 3 mm

- Operating voltage¹ 500 V
- Rated impulse voltage¹ 3,000 V
- Max. continuous current² 58 A at 6 mm²
- Mating cycles min. 100,000



+ 3 contacts / Contact Ø: 3 mm

- Operating voltage¹ 2,500 V
- Rated impulse voltage¹ 10,000 V
- Max. continuous current² 58 A at 6 mm²
- Mating cycles min. 100,000



+ 2 contacts / Contact Ø: 5 mm

- Operating voltage¹ 1,000 V
- Rated impulse voltage¹ 4,000 V
- Max. continuous current² 119 A at 16 mm²
- Mating cycles min. 100,000



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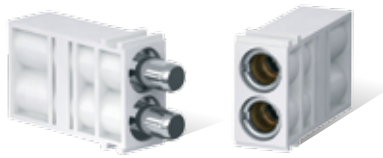
¹ Acc. to IEC 60664-1:2007 (VDE 0110-1:2008) for degree of pollution 2. ² Definition max. continuous current see catalog ODU-MAC page 165.

HIGH CURRENT



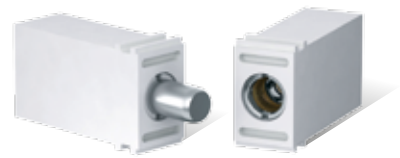
+ 2 contacts / Contact Ø: 8 mm

- Operating voltage¹ 500 V
- Rated impulse voltage¹ 3.000 V
- Max. continuous current² 142 A at 25 mm²
- Mating cycles min. 100.000



+ 2 contacts / Contact Ø: 8 mm

- Operating voltage¹ 500 V
- Rated impulse voltage¹ 3.000 V
- Max. continuous current² 154 A at 25 mm²
- Mating cycles min. 10.000



+ 1 contact / Contact Ø: 10 / 12 mm

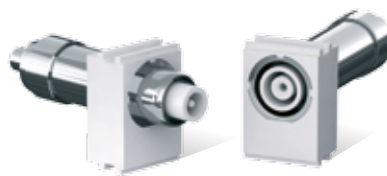
- Model 10 mm 12 mm
- Operating voltage¹ 250 V 200 V
- Rated impulse voltage¹ 4.000 V 3.000 V
- Max. continuous current² 179 A 220 A
at 35 mm² at 50 mm²
- Mating cycles min. 10.000 min. 10.000

HIGH VOLTAGE



+ 4 contacts

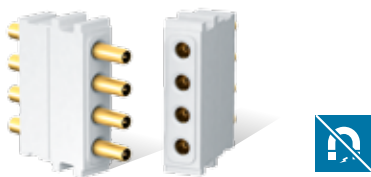
- Operating voltage¹ 2.500 V
- Rated impulse voltage¹ 10.000 V
- Max. continuous current² 27 A at 1.5 mm²
- Mating cycles min. 100.000



+ 1 contact

- Operating voltage¹ 6.300 V
- Rated impulse voltage¹ 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



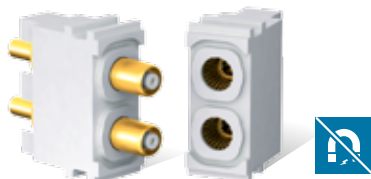
+ 2 contacts / 50 Ω

- Frequency range 0 to 9.0 GHz
- Mating cycles min. 100.000



+ 2 contacts / 50 Ω

- Frequency range 0 to 2.4 GHz
- Mating cycles min. 100.000



+ 2 contacts / 50 Ω

- Frequency range 0 to 2.8 GHz
- Mating cycles min. 100.000



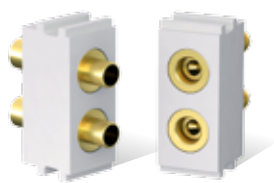
+ 2 contacts / 75 Ω

- Frequency range 0 to 3.0 GHz
- Mating cycles min. 100.000

CONFIGURE THE ODU-MAC®.
SIMPLY ONLINE AT WWW.ODU-MAC.COM

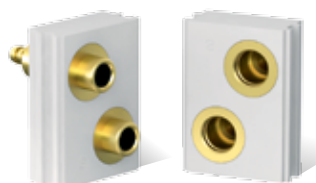
¹ Acc. to IEC 60664-1:2007 (VDE 0110-1:2008) for degree of pollution 2. ² Definition max. continuous current see catalog ODU-MAC page 165.

PNEUMATIC AND FLUID MODEL



+ 2 contacts

- 20 bar
- Tube Ø max. 4 mm
- Mating cycles min. 100.000



+ 2 contacts

- 12 bar
- Tube Ø max. 6 mm
- Mating cycles min. 100.000



+ 1 contact

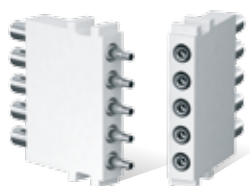
- 12 bar
- Tube Ø max. 6 mm
- Mating cycles min. 100.000



+ 2 contacts

- 10 bar
- Tube Ø M5 internal thread
- Mating cycles min. 100.000

FIBER 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

- Typical insertion loss 1 dB at 670 nm
- Mating cycles min. 100.000

SHIELDED IMPLEMENTATION / HIGH-SPEED CONNECTOR

[Suitable for all common bus systems]



+ 2 to 10 contacts / size 0

- Mating cycles min. 5.000
- Selected inserts are suitable and certified for data rates of up to 5 Gbit/s (USB 3.0)



+ 2 to 14 contacts / size 1

- Mating cycles min. 5.000
- Mating cycles with springwire min. 60.000
- Selected inserts are suitable and certified for data rates of up to 1 Gbit/s



+ 4 to 16 contacts / size 2

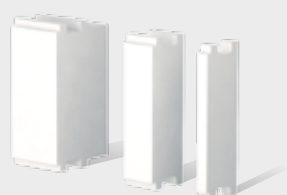
- Mating cycles min. 5.000
- Mating cycles with springwire min. 60.000
- Selected inserts are suitable and certified for data rates of up to 10 Gbit/s



+ 10 to 30 contacts / size 3

- Mating cycles mind. 5.000
- Selected inserts can be certified for data rates

ADDITIONAL MODULES



+ Blank modules



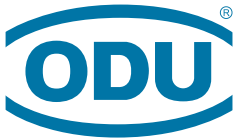
+ Spacer module



+ Coding modules



+ Pin protection modules



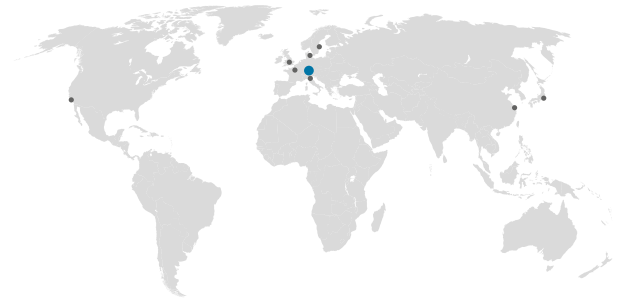
A PERFECT ALLIANCE.

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www.odu.de/sales

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ODU-MAC®



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