

# ODU Connector Solutions – For Most Harsh Environments

ODU Connectors are ideally suited for mission critical military applications and their extreme environmental conditions

**E**specially over the past two years there have been many new product and application developments on the military market and just as many changes. However, manufacturers' and users' requirements and requests remained the same: weight reduction, robustness, ease of handling and secure transmission of a high number of signals in the smallest available space. Functionality under the most difficult conditions is a basic requirement for all connector technologies used in military applications. More than 70 years of experience, high vertical integration and overall knowledge under one roof – ODU convinces with high-quality standard products as well as with customer- and application-specific solutions. ODU's premium connectors securely and reliably transmit data and signals, making them useful in an extremely diverse array of applications, for example in soldier modernization applications. The circular connectors are designed for e.g. group voice and data radio, navigation module, soldier control unit, rugged computers and handheld devices, GPS antennas, military night vision devices, unmanned systems and land vehicles. At one glance the ODU AMC series include four different types of connector solutions: ODU AMC High-Density, ODU AMC Push-Pull, ODU AMC Break-Away and ODU AMC Easy-Clean.

## Most compact space – ODU AMC High-Density

With a diameter of less than 10 to 18.5 millimetres and a pole density of up to 40 contacts, the connector proves that functionality and premium-quality do not require a lot of space. Beside the multi-position signal connector, the product series has different versions for power, signal and data transmission, which provide the highest performance and functionality in a compact package. One of the main features is the space saving ODU AMC High-Density for USB 3.0 data transfer at a rate of 5 GBit/s. The miniature

connector has a long service life of more than 5,000 mating cycles – even under severe environmental conditions; for example, the impact of water, dirt, salt, and temperature. Blind mating and optimised mechanical and color coding guarantee safe and simple handling. Through the Break-Away function, the reliable connection can be detached in an instant with a pull on the cable.

## Two different mating options in one connector family

Different mating options are also key features of two more connector solutions of the AMC series. The ODU AMC Push-Pull design enables the mating and unmating of the connector with minimal force. Beside this option, the connector solution offers a rugged housing with non-reflective surface, mechanical and color keying, 5,000 mating



ODU AMC® with Push-Pull locking.



ODU AMC® High-Density in the most compact space.

- ▶ cycles durability, high-speed data technology, watertight – protection class IP 68 and IP 69 – and versatile configurations. For connectors that need to be mated and unmated fast during usage ODU designed the ODU AMC with Break-Away function. One pull on the cable is enough to unmate the connection. The plug incorporates a unique locking system with mechanical and color keying options. Also, the ODU AMC Easy Clean benefits of a Break-Away function.

**Easy cleaning even under harshest circumstances**

This plug’s contacts can be easily and quickly cleaned even in the harshest environments: The ODU AMC Easy Clean design was created using a unique spring loaded pin system that allows for an easy-wipe flat receptacle surface. The connector solution has a protection class IP 68 and IP 69, 7-19 positions, mechanical and color keying. The system solutions include also protective caps that ensure fast and trouble-free handling of the connectors and of the overall system and also integrated cable assembly solutions and overmolding.



ODU AMC® Easy-Clean.

**Reliable functionality thanks to ODU-MAC**

While the ODU AMC series is mainly used in soldier modernization applications, ODU offers a broad range of connector solutions. In radio and radar stations as well as transmission connectors in central electronic the ODU-MAC



ODU-MAC® combines versatility with customizable modules.

ensures reliable connections. “Our proven single contact technology is the base of many modules of ODU-MAC”, expounds Günter Rohr, Global Portfolio Manager. The open modular connector system combines the versatility of a rectangular connector with customizable modules to create countless custom connector variations for a wide variety of applications. Couple this with numerous housing options to create the perfect interface for transferring power, signal, pneumatic/fluid, fiber optic, coax and high speed data signals all in one easy to mate system. The result is an effective, compact and attractive overall connection with unsurpassed functionality. The ODU-MAC ensures reliable connections and is constantly updated with new features.

Rapidly evolving technologies quickly outgrow off-the-shelf connector systems. “This is why we offer services for developing custom connector solutions for specific military applications beside available standard solutions”, Günter Rohr states. “For perfect connections worldwide.” ■

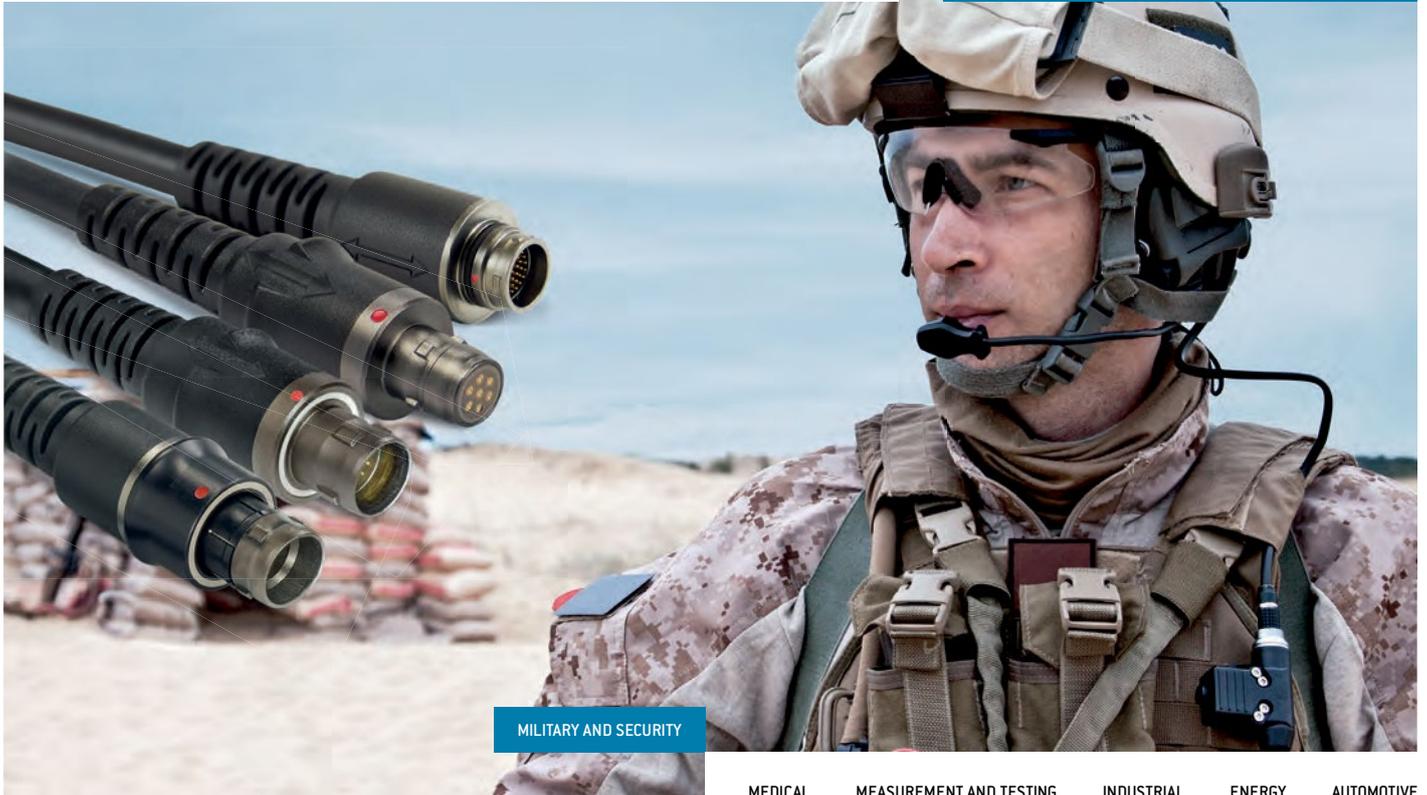
**The ODU Company Group: Global representation with perfect connections**

ODU is one of the world’s leading connector systems suppliers and employs about 1,650 people around the world. Aside from the company headquarters at Mühldorf am Inn, the ODU Group has also an international production and distribution network in Europe, North America and Asia. ODU combines all relevant areas of competence and key technologies relating to design and development, machine tool and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly. The ODU group sells its products around the world and has an international distribution network that includes eight sales companies in Denmark, England, France, Italy, Sweden, the USA, China and Japan, along with numerous worldwide sales partners. The ODU connectors ensure reliable transmission of power, signal, data and media in numerous demanding applications: medical technology, military and security, energy, industrial electronics, measurement and testing and automotive technology.

# SECURITY

ADVANCED CONNECTOR SOLUTIONS

HIGHLY RELIABLE  
CONNECTORS FOR  
MILITARY AND SECURITY



MILITARY AND SECURITY

MEDICAL

MEASUREMENT AND TESTING

INDUSTRIAL

ENERGY

AUTOMOTIVE



ODU AMC® Push-Pull



ODU AMC® Break-Away



ODU AMC® Easy-Clean

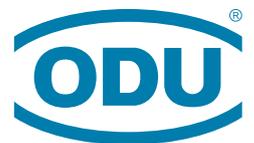


ODU AMC® High-Density

## WITHSTAND HARSH ENVIRONMENTS

The ODU AMC connector solutions are ideal for Future Soldier systems that require significant weight and space reduction for: field radios, portable computers, night vision, digital scopes, GPS antennas, soldier control units and navigation modules. ODU provides also turn-key solutions to match all your specific cable assembly and overmolding requirements.

- + Non-reflective and lightweight
- + Watertight protection IP 68 and IP 69
- + Rugged and compact
- + > 5,000 mating cycles durability
- + Easy handling
- + Color-coded keying identification
- + System solution



A PERFECT ALLIANCE.

Find out more at: [www.odu.de](http://www.odu.de)

ODU GmbH & Co. KG · Pregelstr. 11 · 84453 Mühldorf a. Inn · Germany