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## PRESS RELEASE

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# Reliable interfaces for military vehicles and UGVs: The ODU-MAC® Silver-Line in Focus

Military vehicles and Unmanned Ground Vehicles (UGVs) are designed for a variety of operational scenarios and extreme environmental conditions. These vehicles require a multitude of interfaces for seamless, reliable communication and real-time data exchange. To enhance situational awareness and early threat detection, they are equipped with a wide array of sensors such as radar, infrared, and lidar. Connector systems also play a crucial role in connecting and controlling weapon systems.

#### The key role of military vehicles and UGVs in modern operational scenarios

UGVs, in particular, play a critical role in modern military operations and are of immense value to the armed forces. Their significance spans a wide range of applications, from reconnaissance and surveillance to logistical support and tactical maneuverability. UGVs offer the advantage of being able to perform dangerous tasks in hostile terrain. They enable real-time information gathering, enemy localization, bomb disposal, rescue operations, all without the deployment of troops. The continuous advancement of UGV technologies will undoubtedly further enhance the efficiency and effectiveness of military operations in the future.

### Reliable interfaces for seamless communication and data transmission

As a reliable interface in turret systems of military vehicles, ODU connectors, specifically developed for the high demands of the military sector, are used. The ODU-MAC® Silver-Line ensures fail-safe electrical connections between the turret and the hull. In the field of autonomous vehicles as well, the ODU-MAC® Silver-Line serves as a robust interface, e.g., for automatic loading via docking stations, power supply through swappable batteries, or technical equipment for platform-based UGVs. Data transmission, in particular, will play an increasingly important role in the future. To facilitate communication



and data exchange between different systems within the vehicle, ODU-MAC modules supporting common data protocols are available.

## **ODU-MAC®** Silver-Line: The robust interface for military vehicles

Renowned manufacturers of armored vehicles have qualified the ODU-MAC® Silver-Line according to MIL-STD 810 for vibration and temperature resistance. This ensures reliable connector functionality even under adverse environmental conditions. The use of self-cleaning contacts prevents dirt and dust from affecting the connector, ensuring excellent electrical properties. The ODU-MAC® Silver-Line portfolio offers robust frame solutions for high mechanical demands on one hand and compact designs that save space and minimize weight on the other. Simultaneously, the ODU-MAC® Silver-Line is suitable for blind mating without optical control, facilitated in part by robust guide pins.

## Efficient and space-saving docking solutions for military vehicles

Modularity and high packing density allow the combination of multiple connectors in a hybrid interface, enabling efficient utilization of installation space. The ODU-MAC® Silver-Line offers a fast and space-saving docking solution with high electrical performance, even in extreme operational conditions. With 100,000 to 10 million mating cycles, the Silver-Line is also suitable for repetitive docking tasks.

# The future of military vehicle technology: Continuous advancement through ODU connectors

ODU-MAC® Silver-Line connectors meet the high requirements in military vehicles. Robust design, high electrical performance, ease of use, and safety make these connectors an excellent choice for use in military environments. The continuous development of ODU connectors contributes to improving communication and efficiency in military vehicles and ensuring the safety of soldiers. Modularity and high packing density allow the combination of multiple connectors in a hybrid interface, enabling efficient utilization of installation space. ODU connectors provide stable power supply, efficient data transmission, and enable the successful deployment of military vehicles in extreme conditions.



#### **ODU Group: global representation with perfect connections**

The ODU Group is one of the world's leading suppliers of connector systems, employing 2,600 people around the world. In addition to its company headquarters in Muehldorf a. Inn (Germany), ODU also has an international distribution network and production sites in Sibiu/Romania, Shanghai/China, and Tijuana/Mexico. ODU combines all relevant areas of expertise and key technologies including design and development, machine tooling and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly. The ODU Group sells its products globally through its sales offices in China, Denmark, France, Germany, Hong Kong, Italy, Japan, Korea, Austria, Sweden, UK and the US, as well as through numerous international sales partners. ODU connectors ensure a reliable transmission of power, signals, data and media for a variety of demanding applications including medical technology, military and security, automotive, industrial electronics, and test and measurement.