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## PRESS RELEASE

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### Revolutionary Fiber Optic Products for Military Use

Muehldorf a. Inn. In the military sector, the interoperability of systems plays a crucial role in modern defence operations. It allows different units and forces to work together seamlessly, share information latency-free and in real time, and use resources efficiently.

For example, for high demands on data rates and fast, interference-free transmissions, fiber optic technology offers the following advantages, which are of crucial importance in the military environment:

- Transmission range
- Security against eavesdropping
- Latency
- Weight reduction
- Scalability
- Density

The ODU Fiber Optic portfolio includes a variety of different connectors and transmission technologies such as POF, Physical Contact, Expanded Beam and Expanded Beam Performance. ODU has developed fiber optic and hybrid connectivity solutions for different connector series that combine fiber optic technology with power contacts and various connection cross-sections for transmission media – both as GOF (multimode / singlemode) and POF system solutions.

Due to the high requirements for connecting fiber optic cables to the connector, the portfolio includes fully assembled fiber optic system solutions.



Especially for military applications, the ODU portfolio includes various fiber optic connectors, so that the advanced technology can be used in the following application examples:

- Communication links with high data transfer rates, such as command posts or operations centers
- Long-range connections between two or more transmitting and receiving points
- Stationary data links in a military context (nodes in port infrastructures, airfields and air defense structures)
- Radio and data distribution points at the tactical level, such as forward command posts (FOB) or static command posts

Whether it's harsh environments, high mating cycles or long transmission distances, ODU Fiber Optic is the ideal system solution for military applications where speed and reliability are critical. The Fiber Optic solutions are safe, fast and hardly susceptible to failure. ODU delivers quality and stability – for high-performance optical technologies that can serve a wide and demanding range of applications.

#### **Highlight: Expanded Beam Performance**

Using Fiber Optic connectors is frequently accompanied by a time-consuming cleaning procedure before each mating process.

This is not the case with ODU: The revolutionary Expanded Beam Performance technology provides high-end transmission characteristics with ultra-low attenuation values over many mating cycles. Since there is no direct contact between the contact ends, they are insensitive to dirt and can be easily cleaned. In near-use conditions, the contact transition enables up to 25,000 mating cycles with compressed air cleaning after 5,000 mating cycles.

The ODU AMC<sup>®</sup> Expanded Beam Performance Series T Size 9 with an outer diameter of less than 19 mm is the world's smallest 12-channel lens connector that ensures reliable transmission with no loss of signal path. The excellent optical performance remains unchanged even under high mating cycles, heavy mechanical stress and other environmental influences.

#### **Robust, application-specific connector systems**

ODU connectors for the military, security, and communication technology offer the highest level of signal integrity through 360° shielding. Five-finger coding and colour coding provide support in extreme situations and prevent mismatching. Even on the smallest installation space, different configurations are possible. The rugged enclosures are waterproof to IP6K9K, nonreflective and available with different connection types and locking mechanisms.



Robust under high loads and extreme temperatures, resistant to dust, water and vibration. Optimized for demanding applications due to high resilience and transmission reliability, even under the most technically challenging environmental conditions.

For more information, visit <https://odu-connectors.com/technologies/fiber-optic/expanded-beam-performance/> or visit us at [Enforce Tac](#) taking place Feb. 26-28, 2024, at Booth 8-508 in Hall 8.

**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, production and product development sites in Sibiu/Romania, Shanghai/China, Tijuana/Mexico and Camarillo/USA. 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 Austria, China, Denmark, France, Germany, Hong Kong, Italy, Japan, Korea, Romania, 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