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## PRESS RELEASE

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### **ODU sets standards for IEC 60601-1 connectors in medical technology**

Medical technology plays an increasingly important role in the diagnosis, treatment and monitoring of patients, making IEC 60601-1 a cornerstone of the industry. This standard ensures that medical devices are not only technologically advanced, but also efficient and meet the highest safety standards.

#### **Connectors as an interface**

Medical devices must meet a variety of criteria throughout their lifecycle from development to disposal. As part of the medical device, connectors regulate the interfaces that enable smooth communication between different components. Medical devices are usually connected to the general power supply network and thus pose a latent danger to patients and operators. IEC 60601-1 defines clear requirements to ensure that such devices function reliably under the intended conditions of use while minimizing potential hazards.

#### **IEC 60601-1 conformity for ODU MEDI-SNAP® and ODU MINI-SNAP®**

To mitigate the risk, medical device manufacturers need to incorporate two safeguards into their products. This can be done either by two separate measures or by doubling one measure to achieve the prescribed protection level 2 MOPP (patient protection) or 2 MOOP (operator protection). Many examples from the ODU MEDI-SNAP® and ODU MINI-SNAP® connector portfolio meet these requirements. The medical device manufacturer can meet their obligations for achieving the required patient or operator level of protection by selecting a suitable connector solution from ODU. The manufacturer can either use standard products off-the-shelf or a solution specially developed for his requirements. This applies not only to the specific pin layout, but also insulation requirements, grounding measures as well as protection against electrical hazards to patients and medical staff.



Such solutions may require higher clearance and creepage distances, stronger insulation and lower leakage currents.

Alternatively, the medical device manufacturer can implement the protective measures via the power supply design instead of the connector, but this may require engineering in additional components in the circuit design. However, the fulfillment of the requirements of IEC 60601-1 by selecting suitable connectors is technically much more elegant and simplifies the associated necessary risk analysis, since additional components also entail an additional risk of failure in the circuit design.

### **System solutions for medical technology**

Mechanical stresses such as tension, bending or compression will also not lead to unexpected failures or malfunctions when deploying ODU MEDI-SNAP® and ODU MINI-SNAP® connectors. They are well able to withstand the demands of the medical environment. The materials used are extremely durable and meet the requirements for cleaning and autoclavability. In order to meet further medical requirements, ODU offers silicone-overmolded system solutions consisting of connectors, overmolding and cable assembly. The materials are designed so that sticking or a stick-slip effect is prevented even under continuous operation. This provides the best-in-class feel, durability and hygienic performance.

### **Early involvement of suppliers supports the approval process**

The approval procedures are becoming increasingly complex. The early involvement of ODU in the design-in process not only significantly simplifies risk management, but also reduces product development costs for manufacturers to a minimum. Ultimately, the time required for the approval process can be significantly reduced if components from suppliers already fully comply with the requirements of IEC 60601-1.

By strictly adhering to IEC 60601-1 in these key areas, ODU underlines its commitment to the highest quality standards in medical technology. ODU connectors not only offer outstanding performance and safety, but also help make medical devices more efficient and reliable, ultimately benefiting patient care.



**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.