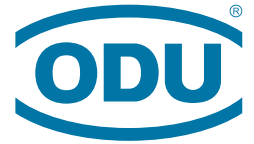


A PERFECT ALLIANCE.



SILICONE-OVERMOLDED SYSTEM SOLUTIONS

High-quality technologies for medical applications

EXCELLENT SURFACE
PROPERTIES



SILICONE-OVERMOLDED SYSTEM SOLUTIONS

CABLE ASSEMBLY

SILICONE-OVERMOLDED SYSTEM SOLUTIONS

Applications in medical technology are often exposed to significant mechanical and chemical influences. ODU offers a flexible complete system consisting of connectors, cables with matching assembly and optional labeling. The complete solution is precisely tailored to the application.

ODU relies on many years of cooperation with leading cable manufacturers in the medical sector. We also take care of testing and documentation – allowing you to concentrate on your patients.



PREVENTION OF THE STICK-SLIP EFFECT

- Cable system including overmolding easy to clean
- Extraordinary hygienic due to reduced stickiness
- Comfortable haptic



AUTOCLAVABILITY

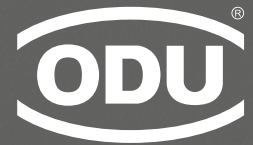
- Up to 500 autoclave cycles
- Durable surface properties
- Resistant system solution



BEND PROTECTION AND NEW SHAPE: SMOOTHLY TRANSITIONING OVERMOLDING

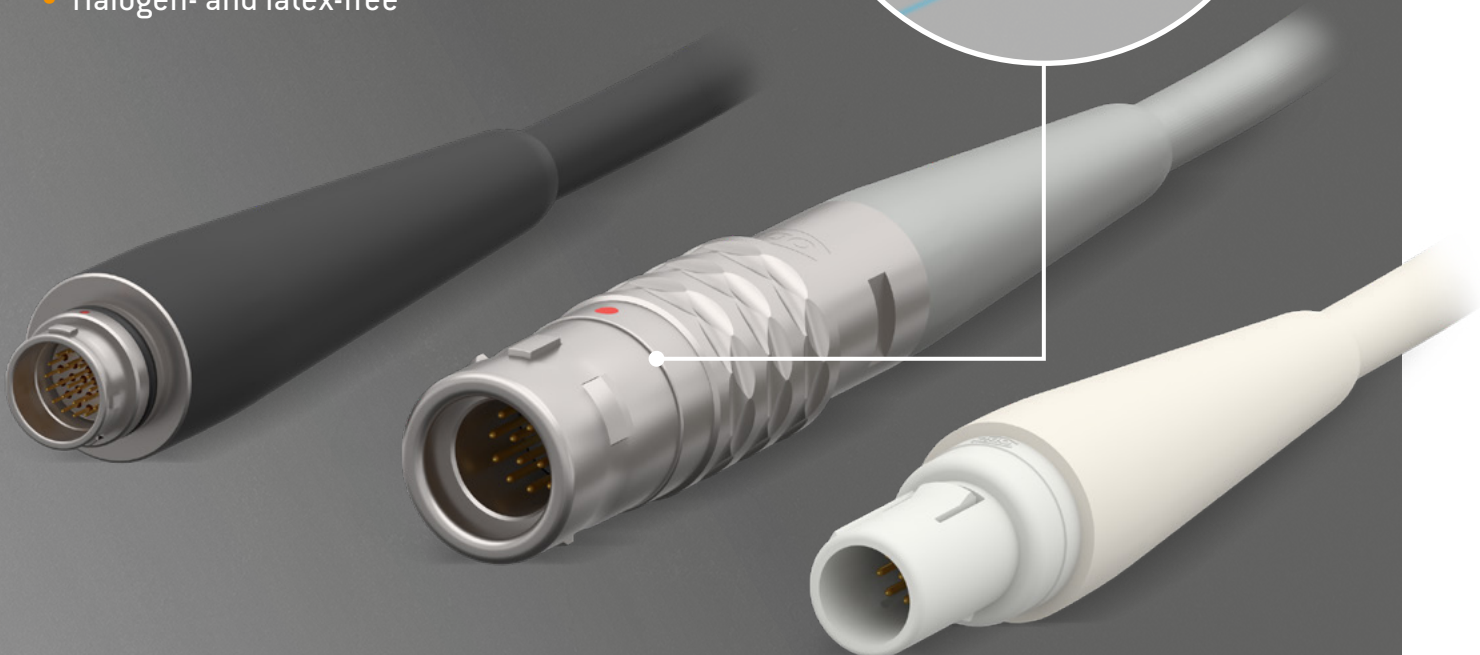
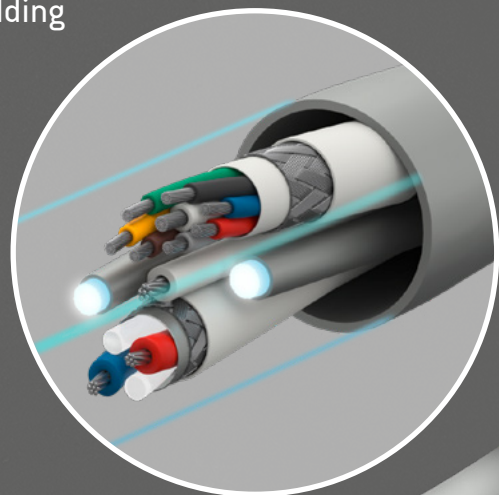
- Overmolding and cable both highly flexible
- Special shape for maximum alternating bending strength
- Smooth transition without unhygienic edges

IMPROVED DESIGN · EXCELLENT SURFACE PROPERTIES



ALL ADVANTAGES AT A GLANCE

- New surface with unique haptics – no stick-slip effect
- Up to 500 autoclave cycles
- Bend protection thanks to special shape of overmolding
- Approved LSR and HTV processes globally available
- Maximum alternating bending strength
- Tested for medical technology use
- Individual laser labeling possible
- Various standard inserts available
- Optimal mechanical properties
- Customized contact configuration
- Halogen- and latex-free



SILICONE SYSTEM SOLUTIONS

CONTACT US AT
cable-assembly@odu.de

PRODUCT MANAGEMENT

Our specialists in the product management will discuss the technical feasibility of your project in cooperation with the design department.

We base this work on the latest scientific standards, but are always happy to go one step further; during our internal consultation and development phase, we start with adhesion tests and medical tests to make and test a product prototype.



PRODUCT MANUFACTURING

When development is complete, the product moves on to manufacturing. If new tools are required, ODU is able to design these in-house and make them in the company's own global tool shops at the respective production sites.

Your product solution moves through various stations, including:

- **Silicone cable assembly:** The complete solution from a single source.
- **Tool shop:** Customized mold making for overmoldings.
- **Molding shop:** Overmolding of the system solution.
- **Assembly:** All the individual parts made up until this point are put together here to create the final product.
- **Electroplating shop:** The contacts that were previously turned or stamped are given a customized coating here, depending on requirements.





CUSTOMER SERVICE & TECHNICAL SUPPORT

First, our internal and field sales staff get to know all about your application and really get to grips with exactly what you want from the product. We already have access to a range of 90,000 different products – and we will work together with you to develop product number 90,001.

We liaise closely with the production and quality management departments to define the relevant technical and commercial requirements for the product, before drawing up specifications in consultation with the customer.



DEVELOPMENT

We have development centers in Germany and the USA for silicone-overmolded connection systems, so we are always by your side no matter where in the world you are.

Not only will you benefit from ODU's many years of experience in developing new ideas, but also from the opportunity to combine this expertise with new knowledge arising from the company's very own research. So you get products that are specifically tailored to your needs and always state of the art.



TECHNOLOGY TEST CENTER

We conduct tests and inspections in our on-site laboratory – the Technology Test Center, or T²C for short, was founded in 2014. Such tests include:

- Tests to determine autoclavability
- Tests for harsh environments where product will be exposed to salt spray fog, extreme heat or extreme cold, for example
- Leakage tests
- Adhesion tests
- Biocompatibility test (cytotoxicity) according to ISO 10993-5 conducted by approved external testing laboratories in the field of medical technology

OUR PORTFOLIO

FOR INDIVIDUAL REQUIREMENTS

In addition to high quality connectors, ODU offers high-quality silicone-overmolded system solutions which can be used in a range of applications in medical technology.

DENTAL

- Hybrid connections available for parallel supply of water, air and electricity
- Sterilizable
- Biocompatible lines with memory and non-stick effect



ROBOTICS

- For use under a wide range of loads
- Reliable even in case of tension or torsion
- Cables and connections can be combined as required by the customer



ENDOSCOPY

- For high-resolution images in the ultra-high vacuum range
- Biocompatible materials
- Gentle on the skin and slides well
- Steam sterilizable
- Smallest possible outside diameter depending on defined number of contacts



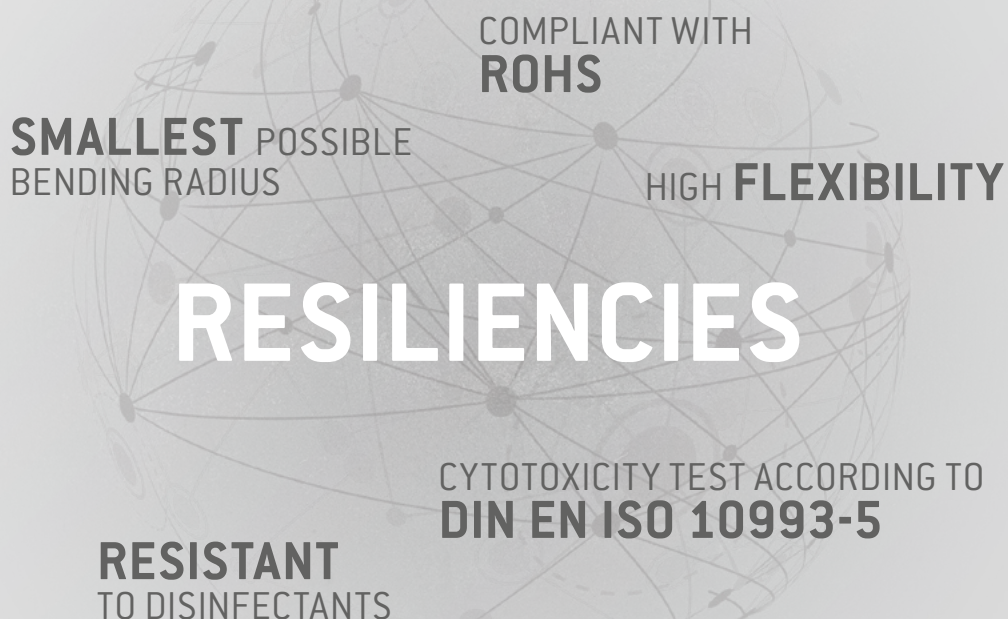
MONITORING

- For use with ECG, measurement of oxygen, blood pressure and temperature
- Fail-safe and vibration-resistant even during transport of the devices
- Resistant to spurious signals from mechanical influencing factors such as torsion, vibration and bending

DURABLE SURFACE PROPERTIES

Both the connector and the associated cable assembly must be optimally suitable for the corresponding environment. This requires a variety of resiliencies.

The new silicone-overmolded system solutions meet these requirements and can withstand up to 500 autoclave cycles. In addition, wipe disinfection, chemical resistance and biocompatibility are guaranteed. Mechanical cleaning has been tested with neodisher® MediClean forte.



MEDICAL TECHNOLOGY TESTING ACCORDING TO ISO 10993-5

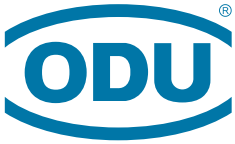
Applications in the field of medical technology meet particularly high requirements. ODU tests this using a wide variety of methods. Hygiene, durability as well as patient and user protection are the primary priorities.

Our standard examinations encompass numerous tests to meet the requirements of medical technology. These include high-voltage and insulation tests, length tests, occupancy tests (2- and 4-pole measurement), functional and component tests for cable systems, runtime measurement, tensile strength tests, torsional and bending fatigue tests and leakage tests for molded components.

The new silicone cable assemblies are thus subject to medical technology testing:

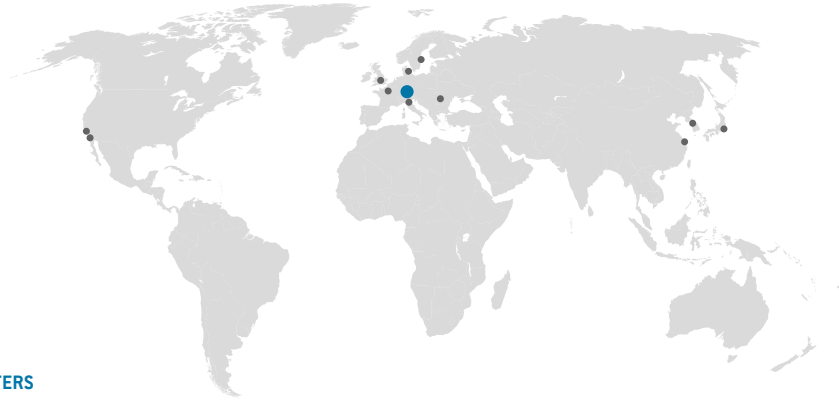
- Cytotoxicity test according to DIN EN ISO 10993-5
- Management system certified according to ISO 9001 and ISO 13485
- Documentation of tests available





A PERFECT ALLIANCE.

ODU GROUP WORLDWIDE



HEADQUARTERS

ODU GmbH & Co. KG

Pregelstraße 11, 84453 Mühldorf a. Inn, Germany
Phone: +49 8631 6156-0, Fax: +49 8631 6156-49, E-mail: sales@odu.de

SALES LOCATIONS

ODU (Shanghai)

International Trading Co., Ltd.
Phone: +86 21 58347828-0
E-mail: sales@odu.com.cn
www.odu.com.cn

ODU Japan K.K.

Phone: +81 3 6441 3210
E-mail: sales@odu.co.jp
www.odu.co.jp

ODU-UK Ltd.

Phone: +44 330 002 0640
E-mail: sales@odu-uk.co.uk
www.odu-uk.co.uk

ODU Denmark ApS

Phone: +45 2233 5335
E-mail: sales@odu-denmark.dk
www.odu-denmark.dk

ODU Korea Inc.

Phone: +82 2 6964 7181
E-mail: sales@odu-korea.kr
www.odu-korea.kr

ODU-USA, Inc.

Phone: +1 805 484-0540
E-mail: sales@odu-usa.com
www.odu-usa.com

ODU France SARL

Phone: +33 1 3935-4690
E-mail: sales@odu.fr
www.odu.fr

ODU Romania Manufacturing S.R.L.

Phone: +40 269 704638
E-mail: sales@odu-romania.ro
www.odu-romania.ro

Further information and specialized representatives can be found at:

www.odu-connectors.com/contact

ODU Italia S.R.L.

Phone: +39 331 8708847
E-mail: sales@odu-italia.it
www.odu-italia.it

ODU Scandinavia AB

Phone: +46 176 18262
E-mail: sales@odu.se
www.odu.se

PRODUCTION AND LOGISTICS SITES

Germany	Otto Dunkel GmbH
China	ODU (Shanghai) Connectors Manufacturing Co.Ltd
Mexico	ODU Mexico Manufacturing S.R.L. de C.V.
Romania	ODU Romania Manufacturing S.R.L.
USA	ODU North American Logistics



Simply scan the QR code to download the entire publication.

All dimensions are in mm. Some figures are for illustrative purposes only. Subject to change without notice. Errors and omissions excepted. We reserve the right to change our products and their technical specifications at any time in the interest of technical improvement. This publication supersedes all prior publications. This publication is also available as a PDF file that can be downloaded from www.odu-connectors.com

ODU-DM-UE

SILICONE-OVERMOLDED SYSTEM SOLUTIONS / B / 09/19 / EN