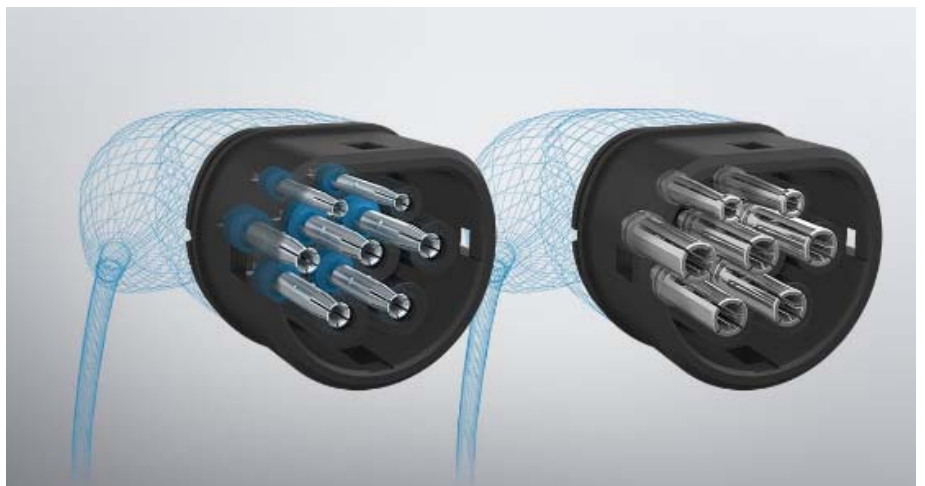


The future is charging!



Two technologies. One mission: the future of charging

E-mobility and hybrid vehicles are in the fast lane! Demand for alternative drive systems is higher than ever before. Despite all the developments and innovations, however, one thing remains the same: If you want to drive, you need an energy source. The fact that the „fuel“ is increasingly no longer fossil-based, but rather pure electrical energy, creates new challenges.



The search is therefore on for charging plugs that combine reliability, efficiency and ergonomics. **ODU TURNTAC®** and **ODU STAMPTAC®** are two contact systems that optimally support these requirements. The perfect connection for tomorrow's road users!

ODU TURNTAC® & ODU STAMPTAC® – universal yet customizable

Thanks to our decades of experience in the development and design of electrical connections, ODU specializes in realizing high-performance and particularly durable charging contacts. ODU TURNTAC® and **ODU STAMPTAC®** are proprietary contacting solutions for all common national standards, which perfectly combine the requirements of both manufacturers and users.



Performance meets ergonomics and efficiency

E-mobility is considered one of the cleanest and most efficient solutions for personal transportation – and is therefore a cornerstone of the energy revolution. Maximum efficiency begins even before the first mile has been driven, i. e., during charging. However, a fundamental distinction must be made between two charging variants: For fast charging (DC charging), a particularly high current is applied, which, however, results in higher charging losses and significant heat generation. The gentler charging method (AC charging) uses less current. Consequently, the power dissipation and heat generation are also significantly lower, resulting in longer charging times compared to DC charging.

"Efficiency begins in the fine details. Here at ODU Automotive, we use ODU STAMPTAC® and ODU TURNTAC® solutions to help our customers realize safe and durable charging solutions."

Manuel Felix, Director Global Sales Automotive

Whether for DC or AC charging, the key challenge when designing charging connectors is to coordinate all relevant factors in a way that allows the highest possible currents to be provided with the lowest possible power losses. The framework conditions for this are the ergonomics of the charging interface itself, as well as national and international standards.

Fully charged, not refueled – maximum know-how for maximum performance

Constraints fuel creativity, as the saying goes. This is especially true when it comes to developing our charging contacts for demanding DC and high-power applications – in this area, the narrow specifications stipulated by manufacturers and legislators seriously limit our „wiggle room“. However, the users in this sector in particular expect high performance and reliability!

To ensure maximum performance, we therefore rely on our expertise in materials, coatings, and the quality of the electrical connection. The correct tuning of all three parameters is critically important for the reliability and efficiency of the charging contacts – and thus of the interface as a whole.



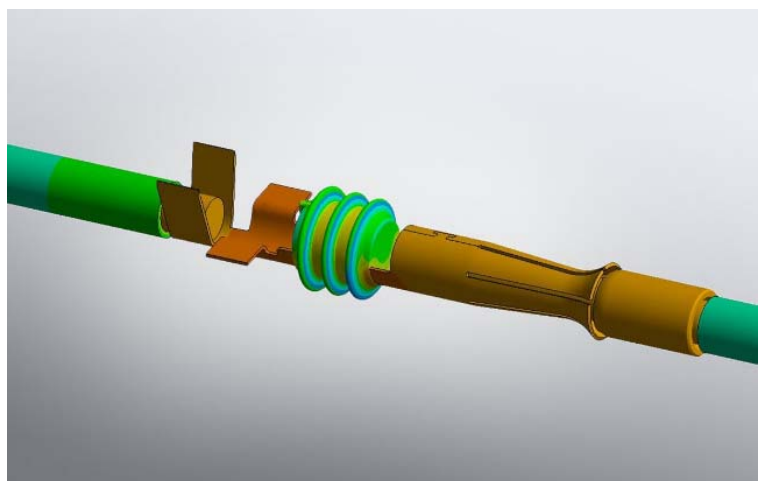
Sister solutions: Our contact technologies grow with your requirements

With our **ODU TURNTAC®** and **ODU STAMPTAC®** charging contacts we offer our customers two highly distinct contact technologies. **ODU TURNTAC®** is our universal solution that we use for many different charging standards. **ODU STAMPTAC®** is the logical evolution of **ODU TURNTAC®** and is optimized for maximum cost and production efficiency in large-scale production.



The future is built on the past – which is why we draw on our previous experience to create new solutions

Having already successfully implemented a large number of solutions, ODU can draw on a wealth of experience when approaching each new project and challenge. Whether creating a design basis or simulating a specific object, we incrementally push forward the boundaries and apply the latest analysis methods – to ensure realistic projections that you can rely on.

With both our **ODU TURNTAC®** and **ODU STAMPTAC®** series, our customers benefit from perfectly coordinated in-house processes. From consulting to development to testing, we coordinate every step under one roof. For maximum efficiency – and minimal „charging losses“.



More about **ODU TURNTAC®** and **ODU STAMPTAC®**

	 ODU TURNTAC®	 ODU STAMPTAC®
Main application area	Charging interfaces	Charging interfaces
Contact technology	Slotted contact technology	Stamped contact technology
Contact size*	Ø 1.5 to 12 mm	Ø 3 & 6 mm
Contacting (example Ø 6 mm)	4 contact fingers	8 contact fingers
Mating cycles	> 10,000	> 10,000
Temperature range	-40 to 125 °C	-40 to 105 °C
Vibration resistance		
Round contacts	•	•
Flat contacts		
Through-hole design	• **	
Crimp termination	•	•
Screw termination	•	
Welded connection	• **	

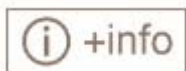
ODU TURNTAC® combines the very best contact properties and high quality with economical prices. Even in adverse operating environments, this robust and flexible contact system has proven its worth. The slotted-contact principle is scalable for high-current applications and is thus viable with even the smallest dimensions. The unique contact geometry with optimum contact forces ensures low mating and demating forces – this is of enormous importance, especially for charging connectors. In combination with ODU contact pins, this solution guarantees a durable and reliable connection.

- Turned and slotted contacts
- Applicable for common charging standards
- Rugged and universal contact system
- Low and stable mating and demating forces
- Various solutions for cable assembly and connection
- > 10,000 mating cycles

ODU STAMPTAC® combines the best of two worlds: contact design and stamping technology. Carefully selected materials, coordinated surface coatings and precise manufacturing technologies ensure both a high level of quality and exceptional reliability. Thanks to our highly automated manufacturing processes, we can ensure customized yet economical production of these connectors in large volumes. By integrating the longitudinal sealing element at an earlier stage of production, we were able to reduce the required number of parts and eliminate additional work steps in the subsequent assembly process.

- Complete IPX7 solution
- Stamping technology for customized, high-volume solutions
- For charging standard IEC 62196 Type 2 (IEC)
- > 10,000 mating cycles
- Cost-efficient alternative for high volumes
- Various solutions for cable assembly and connection

To get more info, please, go to:



SWITCHES

Pushbuttons, Switches, for PCB, Toggle, E-Stops, Piezoelectrics, Vandal-proof, Microswitches



CONNECTION

Circular connectors, IEC sockets and connectors, Flexible cables



ELECTRONICS

Components for Electronic Protection and Measurement, Relays, PCB connectors



JOYSTICKS

Joysticks, Trackballs, Single Axis, HandGrips



KEYBOARDS

Keyboards, Keypads and Panels



INDICATORS

Led Indicators, Lamps



SENSORS

Reed Sensors, Temperature sensors and Limiters, Proximity sensors



MOTION

Motors, Geared Motors, Encoders, Solenoids, Linear Actuators, PMG



AIR MOVING

AC and DC fans, accessories and ventilation groups

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