



OS SERIES

Connectors for Underwater and
Offshore Installations



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During the last decade ODU has supplied thousands of connectors for underwater use (up to 70 bar test pressure).

- Connector with metal housing
- Connector with Neoprene and Polyurethane coating
- Complete with cable assembly
- Pressure body penetrators



OS Series up to 1000°C and 70 bar, EEX

This series has been developed for underwater and offshore use. Cable to cable connectors can be made using plugs and sockets. The socket is made suitable for a cut-out watertight assembly. Housing-, insulation body- and contact material tailored to individual requirements.

In the case of **offshore applications** there are strict regulations regarding fire and explosions.

Tightness and corrosion resistance are of prime importance in **underwater applications**.

The housing is designed to meet all requirements regarding tightness (approved O-ring construction) as well as being explosion proof.

Contact inserts are custom built for signalling-, high voltage-, HF- and LWL-contacts.

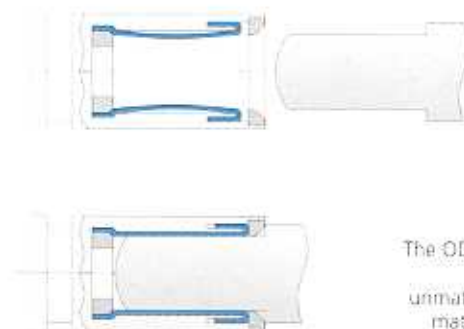
The **ODU springwire** with high contact security and other advantages is used for signalling, high voltage and HF transmission.

The Contact Principle

Inside a springwire socket are preformed springwires forming a sleeve held in place on one end and free to move on the opposite end. (See Figure) When a pin is inserted into a socket, the springwires expand independently and form a resilient cage with a large number of linear contact points along the pin's contact area.

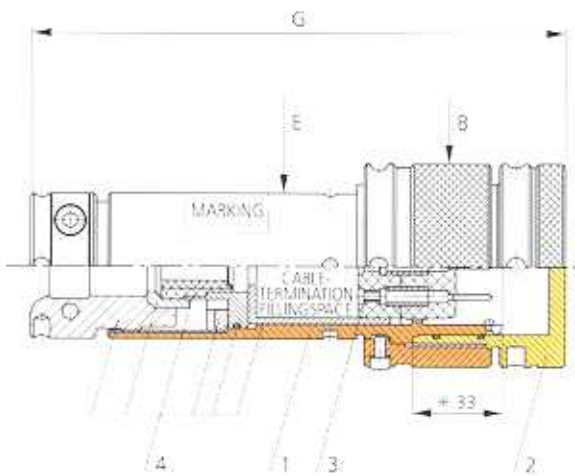
Advantages of Springtac™ contacts over conventional contacts include:

- Very high contact reliability
- 100.000's of mating cycles
- High electric current carrying capability
- Low & consistent contact resistance
- Low insertion & withdrawal force
- High surge current capability
- Excellent performance under high shock & vibration

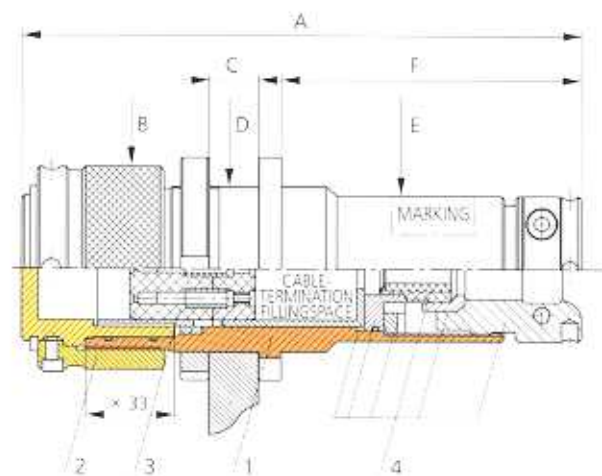


Contacts are supplied for crimp-, solder- and threaded stud termination.

Plug part with pressure-tight cover



Socket part with pressure-tight cover



Dimensions

Sizes	A	B	C	D	E	F	G	No. of poles
Socket part, size 1	max. 202	$\varnothing 72,4$	max. 20	$\varnothing 60$	$\varnothing 52$	max. 110		10-way
Plug part, size 1		$\varnothing 72,4$			$\varnothing 52$		max. 192	250 VAC
Socket part, size 2	max. 250	$\varnothing 99$	max. 20	$\varnothing 88$	$\varnothing 78$	max. 158		34-way
Plug part, size 2		$\varnothing 99$			$\varnothing 78$		max. 235	250 VAC

Technical Data

Casing material

- steel 1.4404 (ANSI 316), X2CrNiMo 1713
- bronze 2.0966, CuAl 10Ni 5 Fe

Underwater application

Offshore application

Insulation body material

- Ceramic or similar
- Fibreglass reinforced polyester PBT (UL 94 VO)
- Duroplastic moulding compound (UL 94 VO)

Contacts (ODU springwire contacts)

- Brass carrier, with special springwires
surface coating as required
- Incolloy carrier, with special springwires
surface coating as required

Water tightness: from IP68 to 70 bar acc. to specification
 Temperature resistance: 1000°C/10 min acc. to IEC 331 750°C/3 h acc. to IEC 331
 Explosion resistance: EEX d II A T3 acc. to EN 50014
 NEMKO Cert.-No. Ex 92 C 011



Subject to technical alterations

Products and their Applications

This list shows the variety of applications for ODU products

	Automatic Testing	Job-Changing Systems	Docking Systems	Power Supply	Transportation	Medicine Technology	Aviation and Aeronautics	Mechanical Engineering	Heavy Industry	Telecommunications	Datatelecommunications	Measurement and Control	Underwater and Offshore	Subsidiaries
Single Spring Wire Contacts	■													
ODU-MAC Modular Connector System	■	■	■	■	■	■	■	■	■	■	■	■	■	■
ODU-DOCK Circular Connector for Robotics	■	■	■											
ODU-SNAP Push-Pull Circular Connectors	■			■	■	■	■	■	■	■	■	■	■	■
Serie 207/8/9 Heavy Duty Circular Connectors				■	■	■	■	■	■	■	■	■	■	■
Serie 308/9/10 Heavy Duty Circular Connectors			■	■	■	■	■	■	■	■	■	■	■	■
ODU-MOT Miniature Circular Connectors				■	■	■	■	■	■	■	■	■	■	■
OS Series Connectors												■		
Custom Connectors	■	■	■			■	■	■	■	■	■	■	■	■
ODU-FLAKAFIX Flat Cable Connectors 2.54					■	■	■	■	■	■	■	■	■	■
ODU-MINIFIX Flat Cable Connectors 1.27					■	■	■	■	■	■	■	■	■	■
ODU-CART Pin and Socket Strips 1.27 SMT						■	■	■	■	■	■	■	■	■
ODU-MINI-CART SMD Card to Card Connectors 1.27							■	■	■	■	■	■	■	■
ODU-LOC Lockable Pin and Socket Strips					■	■	■	■	■	■	■	■	■	■
ODU-BUS SCSI Connector System in Grid Spacing 1.27			■						■	■	■	■	■	■



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ODU about ODU Our company is located in Muhlendorf am Inn, approximately 80 km east of Munich-Germany, in the foothills of the Bavarian Alps. Approximately 10,000 sqm of production and office space is on our own 20,000 sqm property. Over 250 employees produce and dispatch our products Worldwide. Production is the responsibility of Otto Dunkel GmbH while sales and distribution are managed by its sister company ODU Kontakt GmbH & Co.