



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

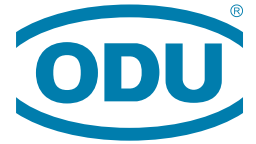
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A PERFECT ALLIANCE.



ODU MEDI-SNAP[®]

Miniature circular connectors with
Push-Pull locking as well as Break-Away function.

PLASTIC HOUSING
METAL HOUSING



ODU MEDI-SNAP[®]

ODU MINI-SNAP[®] F

ODU MINI-SNAP[®] L/K/B

ODU MINI-SNAP[®] PC

ODU MINI-MED[®]

ODU AMC[®]

ODU MEDI-SNAP®

FEATURES

- 75% lighter than comparable metal connectors
- Minimal requirements in terms of installation and maintenance
- Space-saving product design
- High chemical resistance
- Fully sterilizable
- Quick mating via Push-Pull locking
- Easy-to-release Break-Away function

APPLICATIONS

- Medical
- Industrial
- Digital test and measurement



All shown connectors are according to IEC 61984:2008 (VDE 0627:2009); connectors without breaking capacity (COC).

ODU MEDI-SNAP is UL-approved under File E110586.

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-usa.com.

Issue: 2018-05

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A PERFECT ALLIANCE.

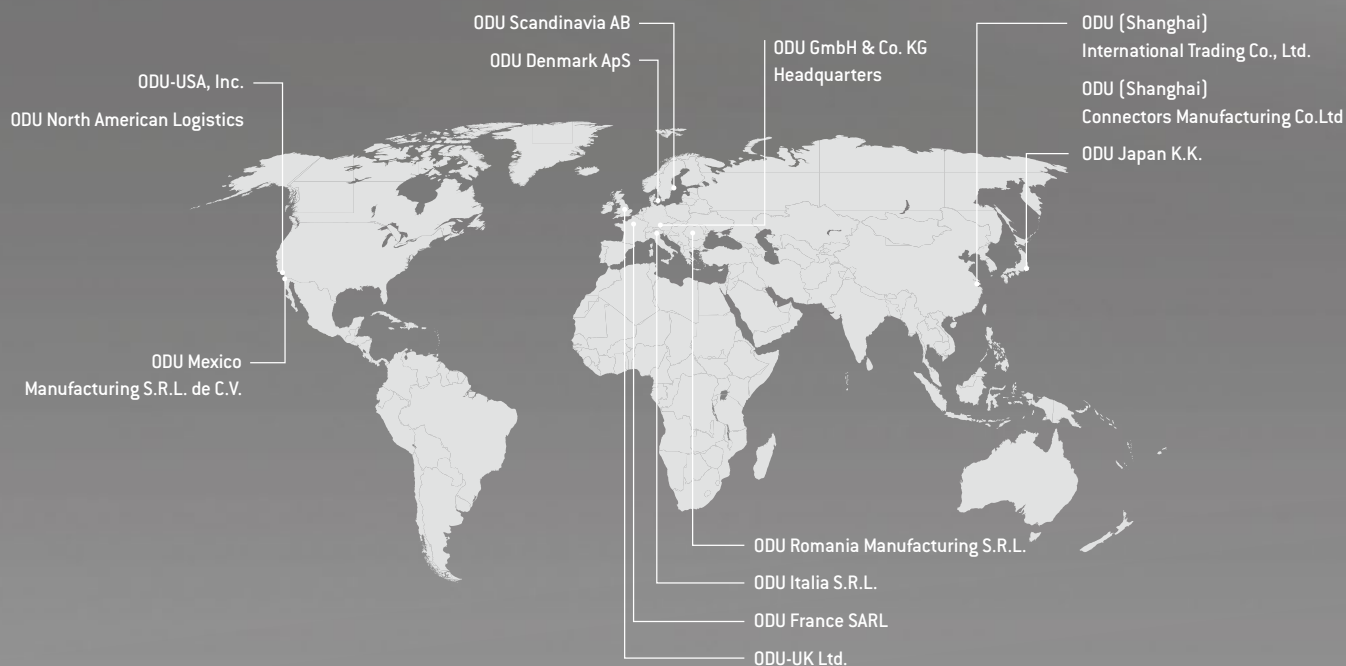
CREATING CONNECTIONS, BUILDING ALLIANCES, COLLABORATING INTO THE FUTURE: WHETHER TWO TECHNICAL COMPONENTS COME TOGETHER TO FORM A UNIT OR PEOPLE COME TOGETHER TO STRIVE FOR GREAT RESULTS – THE KEY IS TO ASPIRE IN ACHIEVING SUPERB RESULTS. THIS GOAL DRIVES OUR WORK. **PERFECT CONNECTIONS THAT INSPIRE AND DELIVER ON THE PROMISES.**





A PERFECT ALLIANCE.

ODU WORLDWIDE



ODU GROUP OVERVIEW

- More than 75 years of experience in connector technology
- A turnover of 170 million Euro
- Over 1,900 employees worldwide
- 9 sales subsidiaries in China, Denmark, France, Germany, Italy, Japan, Sweden, the UK and the US as well as 5 production and logistics sites
- All technologies under one roof: Design and development, machine tool and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly

As of February 2018

CERTIFIED QUALITY

- DIN EN ISO 9001
- IATF 16949
- DIN EN ISO 14001
- ISO 13485
- Wide range of UL, CSA, VG and DVA licenses
- UL certified cable assembly

For a complete list of our certifications, please visit our website.

INGENIOUS IDEAS PERFECT SOLUTIONS

ODU'S PRODUCT PORTFOLIO.



COMPACT MODULAR CONNECTOR SOLUTIONS

- Application-specific hybrid interface
- For manual mating and automatic docking
- The highest packing density
- Flexible modular construction
- Multitude of data transmission modules
- Variety of locking options available
- For the transmission of signals, power, high current, high voltage, coax, high-speed data, fiber optics and other media such as air or fluid.
- Mating cycles scalable as required from 10,000 to over 100,000 (1 million)



PUSH-PULL CIRCULAR CONNECTORS

- Circular connector series in robust metal or plastic housing
- Contacts for soldering, crimping and PCB termination
- Optional selectable Push-Pull locking ensuring a secure connection at all times as well as easy to release Break-Away function
- 2 up to 55 contacts
- IP 50 to IP 69
- Autoclavable for medical applications
- Hybrid inserts for combined transmission



ELECTRICAL CONTACTS

- Versatile connector technologies
- Outstanding reliability, lifetime and durability
- Up to 1 million mating cycles
- Current-carrying capacity of up to 2,400 amperes and more
- Rugged contact systems, suitable even for harsh environments
- Economical solutions for automatic processing



A PERFECT ALLIANCE.

+ Versatile connector solutions for transmission of power, signals, data, or media – ODU never fails to offer the right interface when quality and absolute reliability are the top priorities.



HEAVY-DUTY & DOCKING AND ROBOTIC CONNECTOR SOLUTIONS

- Extremely durable even under extreme /harsh environments
- Interference-free and secure connection, even under vibration
- Up to 500 A (higher currents upon request)
- High contact security due to the springwire technology
- High pin density due to a minimum contact diameter
- Low contact resistance



APPLICATION AND CUSTOMER-SPECIFIC SOLUTIONS

- Contacts, connectors and assemblies for the highest technical requirements as well as special applications
- First-class implementation expertise
- High level of vertical manufacturing – all competences and key technologies under one roof
- Expert advice based on mutual partnership
- Fast development and production



CABLE ASSEMBLY

- Complete systems from a single source based on years of assembly expertise
- State-of-the-art production facilities with 100% end testing, high-voltage testing, component testing and pressure testing up to 100 bar
- Cleanroom production
- Hot-melt and high-pressure injection molding
- Customer-specific labeling
- Rapid prototyping of samples

MORE THAN A CONNECTION

OUR KNOW-HOW FOR YOUR SUCCESS.

All shown connectors are according to DIN EN 61984:2009 connectors without breaking capacity (COC)!

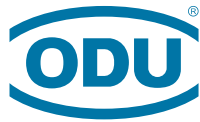
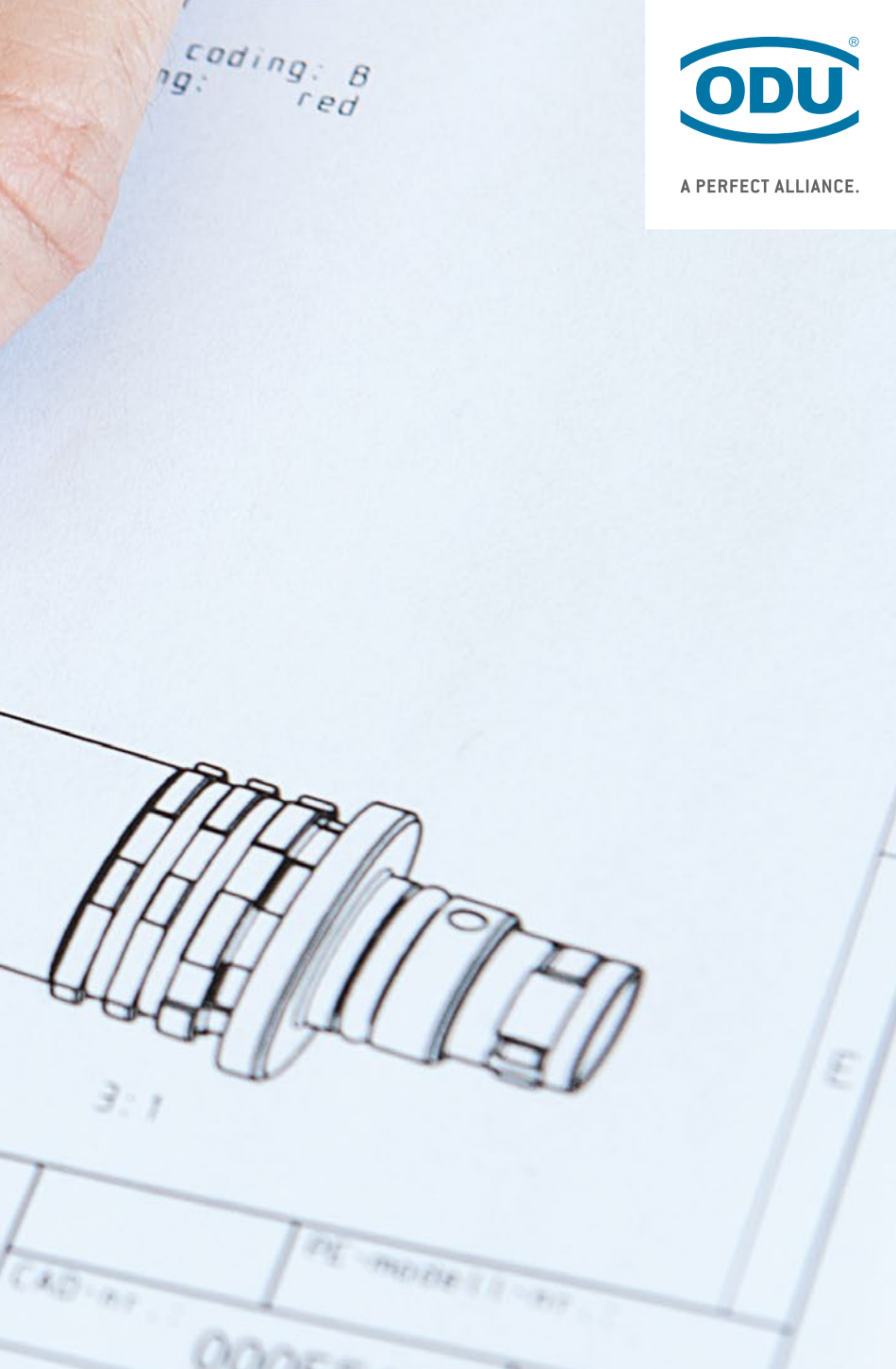
General tolerances to DIN ISO 2768-mK		Tolerances to DIN ISO 8015	
2013	date	name	designation
prep.	11.06.	Unterblum	Break-A
app.			
norm.			

HIGH PERFORMANCE CONNECTOR TECHNOLOGY FOR DEMANDING KEY MARKETS

Customers rely on ODU technology wherever first-class, high-performance connector solutions are required. All our skills go into our products to ensure your success. In addition to the top quality, reliable stability and maximum flexibility in customer-specific requirements, our products also stand for dynamics, reliability, safety, precision, efficiency and sustainability. And they guarantee unrestricted functionality for the final product due to our high quality connectors. ODU – A PERFECT ALLIANCE.

APPLICATION-SPECIFIC SOLUTIONS

Demands that can't be pigeon-holed call for creative specialists who think outside the box. ODU offers the type of expertise that focuses solely on the specific requirements of our customers. For every development order we get, we not only perform a thorough check to make sure it's feasible, we intensively incorporate our customers in the ongoing design process. This guarantees an impressive, custom-fit final result. Our solutions are frequently based on the modifications of our products, especially for the ODU MINI-SNAP and ODU-MAC connectors.



A PERFECT ALLIANCE.

MEDICAL

TEST AND MEASUREMENT

MILITARY AND SECURITY

INDUSTRIAL

ENERGY

EMOBILITY

HIGH LEVEL OF VERTICAL INTEGRATION

ODU combines all the competences and key technologies for the connector manufacturing. These include design and development, machine tool and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly and our own test laboratory.

INDIVIDUAL CABLE ASSEMBLY

Our production skills together with our cutting edge production facilities from Europe, China and the USA enable us to deliver to our customers locally tested assemblies and also global ones.





ODU MEDI-SNAP®



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THE COMPLETE SERIES OF ODU CONNECTORS AT A GLANCE

	Keying	Size	No. of possible mechanical keyings	Plug diameter in mm	Max. cable diameter in mm	Number of max. contacts	Solder	Crimp	PCB	IP protection degree IEC 60529:2013 in mated condition	IP protection degree IEC 60529:2013 in unmated condition	Housing material	From page
ODU MEDI-SNAP® PLASTIC													
	Pin and groove	1	6	13.7	6.5	14	•	•	•	Up to IP 67	IP 50	PSU Gray, Black, White PEI Gray, Black	24
	Pin and groove	2	3	18.5	9.2	26	•		•	Up to IP 64	IP 50	PSU Gray	52
ODU MEDI-SNAP® METAL													
	Pin and groove	1	3	14	6.5	14	•	•	•	Up to IP 64	Up to IP 68	Metal (Brass)	72

FURTHER PRODUCTS OF THE ODU PUSH-PULL CIRCULAR CONNECTOR SERIES.



- Keying over pin and groove
 - 2–40 contacts
 - 6 sizes
 - IP 50 and IP 68
 - Contacts for solder, crimp and PCB termination
- Keying over half-shell
 - 2–27 contacts
 - Low weight
 - IP 67
 - 3 sizes
 - Plastic connector plug housing
- Keying over half-shell
 - 2–27 contacts / mixed inserts
 - 5 sizes
 - IP 50 and IP 68 with same outer diameter possible
 - Contacts for solder, crimp and PCB termination
- Keying over insulator
 - 2–10 contacts / mixed inserts
 - 3 sizes
 - IP 50 and IP 68 with same outer diameter possible
 - Contacts for solder, crimp and PCB termination
- Push-Pull and Break-Away version
 - 3–55 contacts
 - 6 sizes
 - Watertight – IP 68
 - Easy-Clean and High-Density version
 - Tested acc. MIL
 - Low weight (aluminium connector plug housing)

THE CIRCULAR CONNECTOR WITH PLASTIC AND METAL HOUSING



The ODU MEDI-SNAP combines distinctive coding options with over 2,000 mating cycles. The efficient plastic connector is available both with user-friendly Push-Pull locking and the easy-to-release Break-Away function, which comes as a premolded plug & play solution.

Its space-saving product design enables top performance even in the smallest available construction space. Further due to its plastic housing, this connector is up to 75% lighter than comparable metal products.

The great diversity makes the ODU MEDI-SNAP perfectly suited to your requirements in medical technology, industrial electronics as well as digital test and measurement technology.

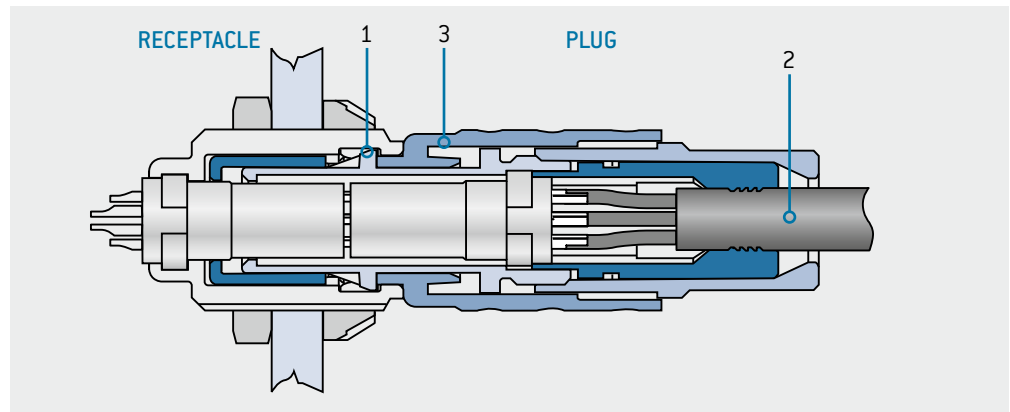
VERSATILE CONFIGURATION OPTIONS

There are 7 color keyings, up to 6 mechanical keyings, 2 sizes, 3 termination types and a wide range of different contact inserts available

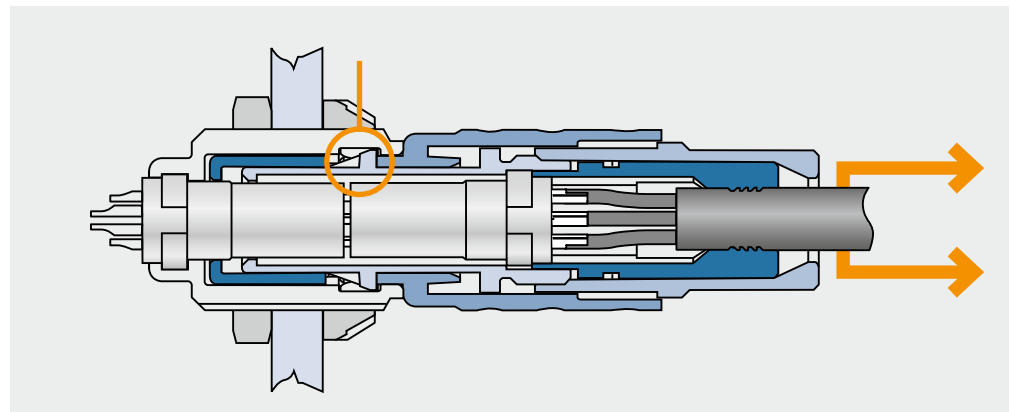
FUNCTIONAL PRINCIPLE OF THE PUSH-PULL LOCKING

Push-Pull locking systems have a **highly user-friendly locking mechanism**. When the connector is mated with the receptacle, the connector's locking fingers 1 will lock into place in the receptacle and form a **dependable connection** between both parts. It **cannot be separated** by pulling on the connector's cable 2. Instead, the connector can easily be separated from the receptacle **by pulling on the outer housing 3**. Push-pull connectors from ODU are available in 2 different standard sizes with diameters from 13.7 mm to 18.5 mm.

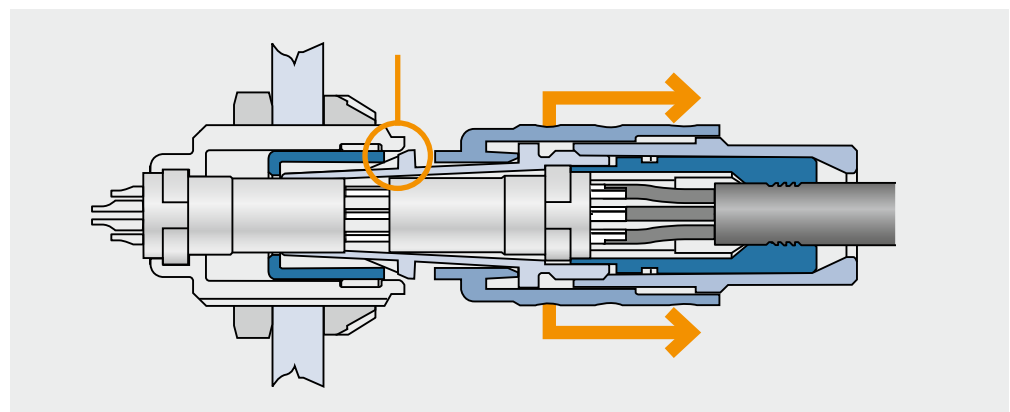
Connector in **mated** condition



Pulling on the cable or back nut will lock the “fingers” firmly in place in the receptacle’s locking groove. This prevents the connector from being disconnected.



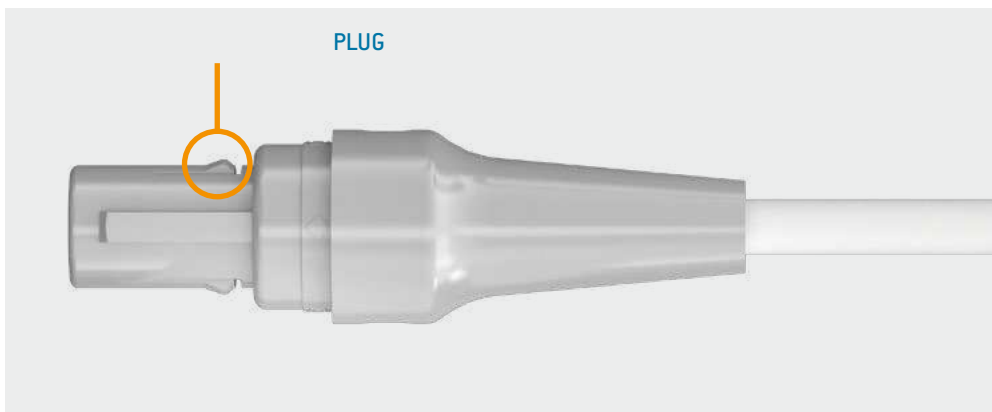
But pulling on the **outer housing** will cause the fingers to emerge from the locking groove, making it **easy to disconnect** the connector.



FUNCTIONAL PRINCIPLE OF THE BREAK-AWAY FUNCTION

The ODU MEDI-SNAP with Break-Away function was designed for connections that can be mated or unmated in seconds.

One pull on the cable is enough to unmate the connection. If the cable is slightly pulled, then the connector is held in place via the snap fits in the receptacle. If greater force is exerted when pulling the cable, then the snap-in connection and the connector are unmated. The ODU Break-Away connectors are available in 2 different standard sizes in diameters from 13.4 to 18 mm.



Connector
in **unmated** condition

IMPORTANT ISSUES AT A GLANCE

CERTIFICATION

ODU is certified in accordance with DIN EN ISO 9001, ISO/TS 16949, DIN EN ISO 14001, ISO 13485.

We also have various certifications for cable assembly from UL, CSA, VG and VDE, UL.

WIDE VARIETY OF VERSION

- Plastic housing in 2 sizes
- Metal housing in one size
- Outer diameter of 13.4 mm to 18.5 mm
- 2 to 26 contacts
- IP 50, IP 64 and IP 67
- Overmolded as well as freely configurable solutions

APPLICATIONS AND MATERIALS

The ODU MEDI-SNAP housings are available in plastic (PSU gray/black as well as PEI black) or brass. Special material housing in PSU white or PEI gray available on request.

The variety of the ODU MEDI-SNAP allows it to adapt to your requirements in medical technology, industrial electronics as well as digital measurement and testing technology.

Under general application conditions, the temperature range of the ODU MEDI-SNAP lies between -50 °C and a maximum of +120 °C, even up to +134 °C in the case of autoclavable connectors (see pag [107](#)).

TURNUED CONTACTS

Turned contacts are available in diameter 0.5 mm to 2 mm in the following termination types:

Solder, crimp and PCB

Mating cycles	> 5.000
Material	Brass
Plating	Ni and Au

TERMINATION TECHNOLOGIES

	Insulator material PEEK	Contact material Ms
Crimp termination ¹	•	•
Solder termination	•	•
PCB termination (on PCB)	•	•

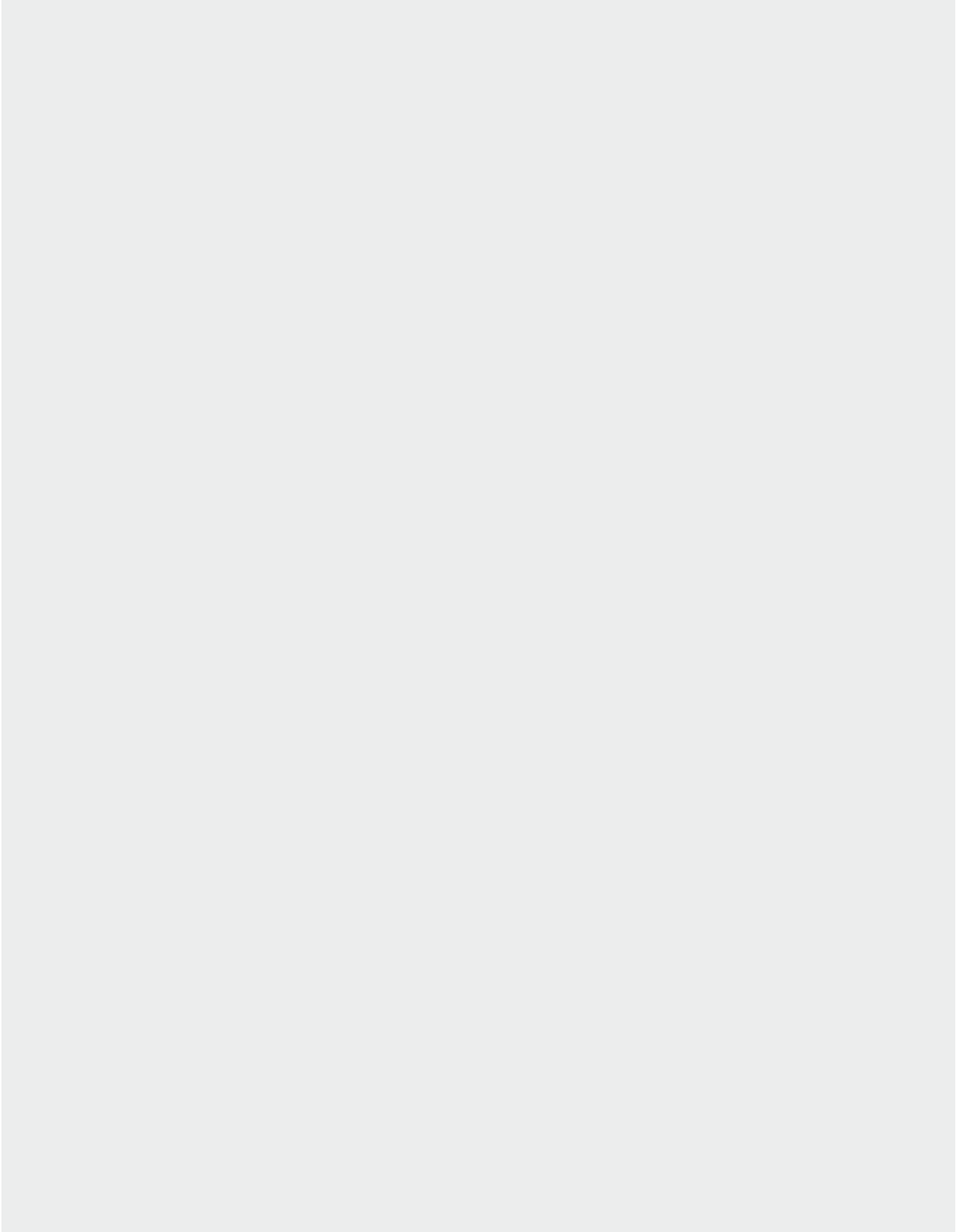
¹ Crimp-clip contacts available with diameters of 0.7 mm and 0.9 mm.

STANDARD PIN CONTACTS



Information on diameters, termination types and current carrying capacity can be found after the inserts.

FOR YOUR NOTES



BIT BY BIT TO THE PERFECT CONNECTION

ODU offers you high-quality connectors and comprehensive service for the complete assembly. From connectors to watertight grouting, we provide the complete system from a single source.



← Back nut



← Cable collet



← Insulator with contacts



← Connector plug housing



← Receptacle



← Hex nut

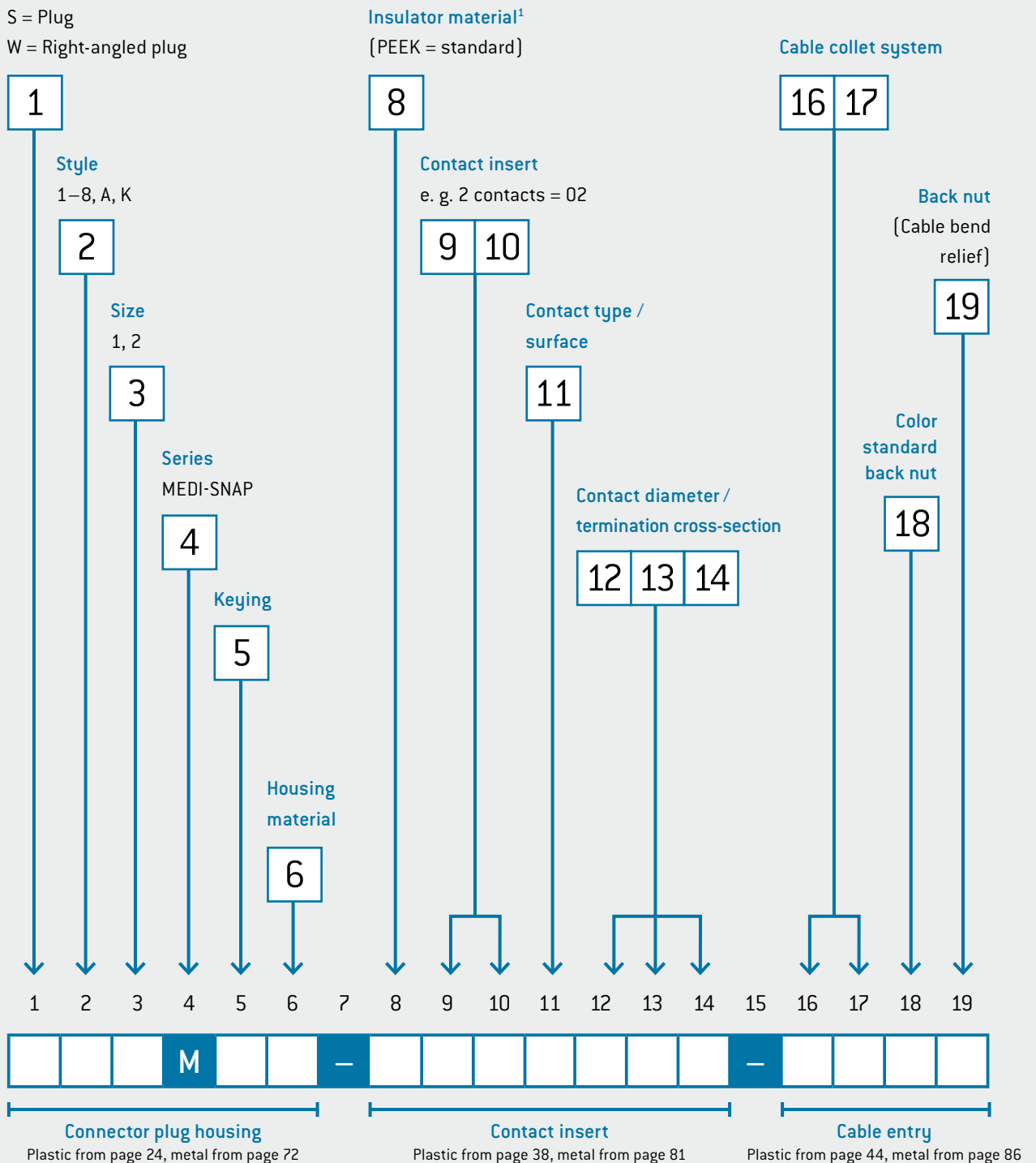
YOUR WAY TO AN INDIVIDUAL CONNECTION:

HOW TO CONFIGURE WITH THE PART NUMBER KEY

This shows you how ODU's part number key is composed. In the first part of the configuration, select the connector plug housing (such as style and size) of the connector. In the middle part of the part number key, you configure the contact insert and then the cable entry.

Type

- A = Break-Away connector
- G = Receptacle
- K = In-line receptacle
- S = Plug
- W = Right-angled plug



¹ Other insulation materials on request.

CORRECT CONFIGURING – STEP BY STEP

The perfect product for you in just a few steps. These step-by-step instructions show you how to configure your own individual product with the ODU part number key based on a sample configuration.



Connector in style 1 / size 1 / series ODU MEDI-SNAP / keying 0° / connector plug housing plastic, gray / insulator PEEK / 14 contacts / pin (solder) Au / termination cross-section AWG 28 / cable diameter 5.3–6.5 mm / standard back nut in the color blue

1. STEP: SERIES (SEE POSITION 4)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			M			-								-				

←

MEDI-SNAP

2. STEP: STYLE (SEE POSITIONS 1, 2 AND 19)

SEE PAGE [28](#)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1		M			-								-				0

←

STYLE S1 WITH
STANDARD BACK NUT

3. STEP: SIZE (SEE POSITION 3)

SEE PAGE [24](#)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1	1	M			-								-				0

←

SIZE 1

4. STEP: KEYING (SEE POSITION 5)

SEE PAGE [37](#)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1	1	M	0		-								-				0

←

KEYING 0°

5. STEP: HOUSING MATERIAL (SEE POSITION 6)

SEE PAGE [37](#)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1	1	M	0	7	-								-				0

←

PSU
gray
PLASTIC, GRAY

6. STEP: INSULATOR MATERIAL (SEE POSITION 8)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1	1	M	0	7	-	P							-				0



7. STEP: CONTACT INSERT (SEE POSITIONS 9 AND 10)

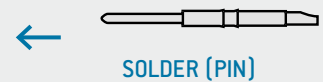
SEE PAGE 38

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1	1	M	0	7	-	P	1	4					-				0



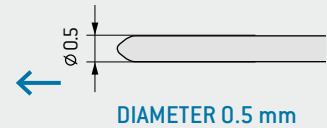
8. STEP: CONTACT TYPE / SURFACE (SEE POSITION 11)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1	1	M	0	7	-	P	1	4	M				-				0



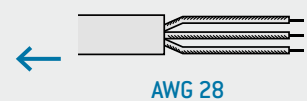
9. STEP: CONTACT DIAMETER (SEE POSITION 12)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1	1	M	0	7	-	P	1	4	M	C			-				0



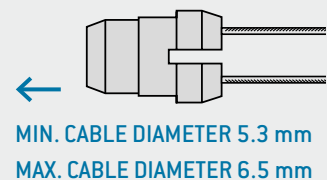
10. STEP: TERMINATION CROSS-SECTION (SEE POSITIONS 13 AND 14)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1	1	M	0	7	-	P	1	4	M	C	C	O	-				0



11. STEP: CABLE COLLET SYSTEM (SEE POSITIONS 16 AND 17)

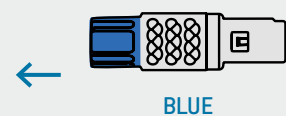
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1	1	M	0	7	-	P	1	4	M	C	C	O	-	6	5		0



12. STEP: COLOR STANDARD BACK NUT (SEE POSITION 18)

SEE PAGE 45

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	1	1	M	0	7	-	P	1	4	M	C	C	O	-	6	5	6	0





ODU MEDI-SNAP®



ODU MEDI-SNAP® WITH PLASTIC HOUSING SIZE 1

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