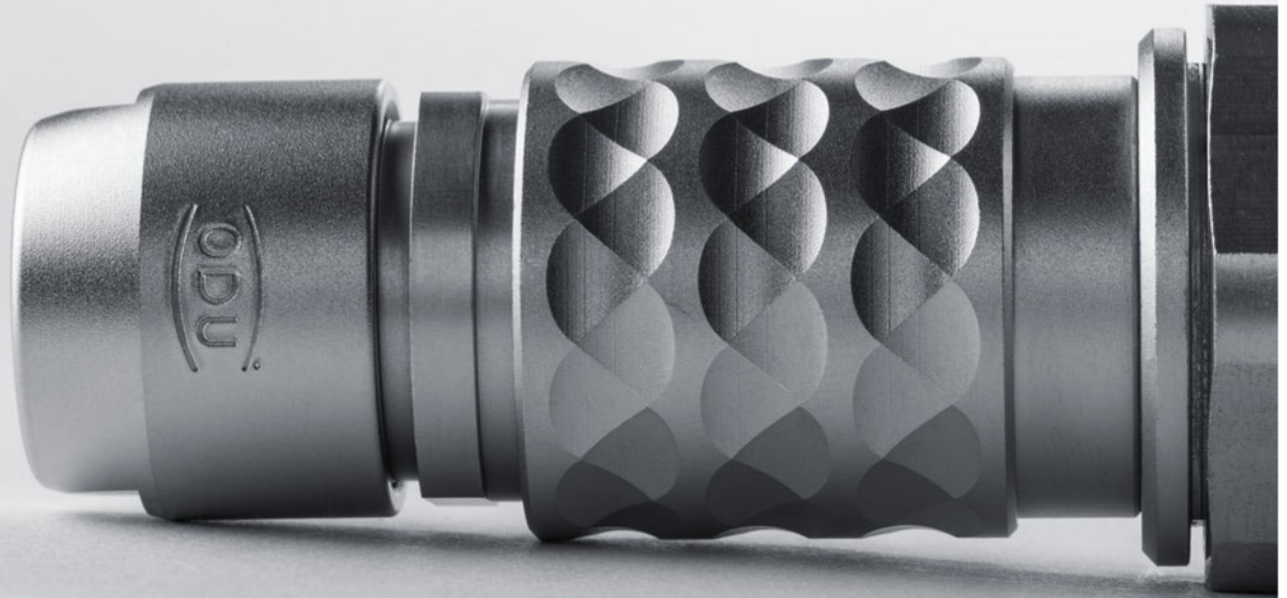


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ADVANCED CONNECTOR SOLUTIONS

Product Training Module
ODU MEDI-SNAP®



ODU MEDI-SNAP®

Purpose:

- Introduce the ODU MEDI-SNAP® connector series

Objectives:

- Review features and benefits
- ODU MEDI-SNAP® 1M Models
- ODU MEDI-SNAP® 2M Models
- Contact configurations/technology
- Mechanical coding options
- Color coding options and accessories
- Target markets and applications
- Certifications
- Summary

Content:

- 14 pages



Welcome to ODU Advanced Plastic Circular Connector Solutions. This presentation will provide an overview of the ODU MEDI-SNAP®, an advanced plastic circular connector with Push-Pull locking and Break-Away function. The tutorial will overview the main product features and benefits, potential contact configurations, the mechanical coding and color coding options and available accessories. In addition it will highlight some of the potential markets and applications together with all the certifications available for this connector solution.

ODU MEDI-SNAP®

Review Features and Benefits

Series Overview:

- Plastic housing in 2 sizes
- Metal housing in size 1
- Push-Pull locking and Break-Away function
- IP50, IP64 and IP67
- High chemical resistance (autoclave)
- Space-saving product design
- Up to 2,000 mating cycles
- 2 to 26 contacts
- 7 color coding options
- 6 mechanical coding options
- Contact types – Solder, Crimp, PCB
- Low cost housing version
- Over molded as well as freely configurable solutions



ODU MEDI-SNAP® is an advanced plastic connector solution with metal or plastic housing and a Push-Pull or Break-Away function. The connector is ideal for applications that require a space saving design, it offers high chemical resistance, and up to 2,000 mating cycles durability. This advanced product can accommodate 2 to 26 contacts, 7 color coding options and 6 mechanical coding options and it offers contacts for solder, crimp or PCB. ODU MEDI-SNAP® has also a low cost housing option and it is fully configurable.

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ODU MEDI-SNAP® 1M Models

Plastic Housing Models Size 1



STRAIGHT PLUG – PUSH-PULL	
IP 50	 S 1
	 S 2
IP 64	 S 4
RIGHT-ANGLED PLUG – PUSH-PULL	
IP 50	 W 1
	 W 2

BREAK-AWAY CONNECTOR	
IP 67	 A 5

RECEPTACLE	
IP 50	 G 1
IP 64/IP 67	 G 4
IP 50	 G 5
	 G 8
	 G 6 (On request)

ONE-PIECE RECEPTACLE	
IP 50	 G 2

ODU MEDI-SNAP® outer shell materials are PSU (Polysulfone) which is standard and PEI (Polyetherimide) for autoclave purposes. The connector is rated IP50 through IP67 in mated condition and it is also available with a right angle plug housing option.

ODU MEDI-SNAP® 1M Models

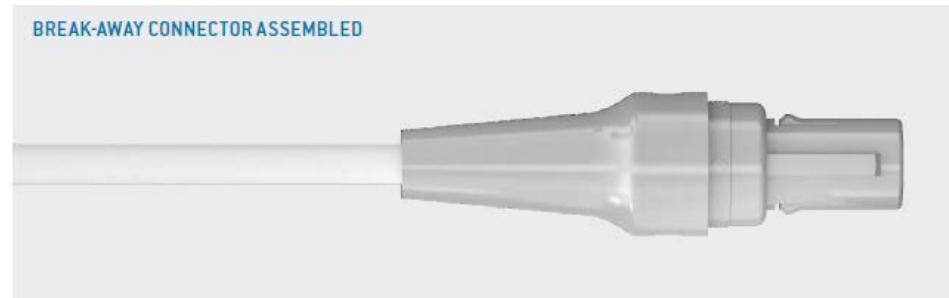
Metal Housing Models Size 1



The ODU MEDI-SNAP® with metal housing in size 1 is keyed by pin and groove. These circular connectors can have a variety of configurations: numerous style of connectors, receptacles and in-line receptacles as well as termination types, contact inserts and color coding. This connector is compatible with the plastic version, it provides a robust housing finish, 3 mechanical coding options and it is rated IP50 and IP64 in mated condition.

ODU MEDI-SNAP[®] 1M Models

Break-Away Version



ODU MEDI SNAP[®] Break-Away is a cost effective connector solution that can be unmated by pulling on the cable. This version can be purchased with overmolding and cable assembly. An IP67 rating can be achieved when an overmolded A5 housing is mated to our G4 panel receptacle. Available with solder contacts.

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ODU MEDI-SNAP[®] 2M Models

Plastic Housing Model Size 2



STRAIGHT PLUG – PUSH-PULL			
IP 50		S	1
IP 50/64		S	4
BREAK-AWAY CONNECTOR			
IP 64		A	5

RECEPTACLE			
IP 50		G	1
IP 64		G	4
IP 50		G	5

ODU MEDI-SNAP[®] Size 2 with plastic housing is IP50 through IP64 rated in mated condition. The housings outer shell is a PSU (Polysulfone) material. A cost effective A5 Break-Away housing is also available on request.

Contact Configurations

Size 1 configurations

Number of contacts	View on termination area	
	Pin piece	Socket piece
0 2		
0 3		
0 4		
0 5		

Number of contacts	View on termination area	
	Pin piece	Socket piece
0 6		
0 7		
0 8		
0 9		









Number of contacts	View on termination area	
	Pin piece	Socket piece
1 0		
1 2		
1 4		



The contact configurations available in the ODU MEDI-SNAP® size 1 include 2 pin – 14 pins, wire gauge range 28 AWG – 20 AWG and a contact diameter range - .5 mm – 1.3 mm. Solder terminations are readily available. Crimp and PCB are included in the product offering. Insulation body is a peek material.

Contact Configurations

Size 2 configurations

Number of contacts		View on termination area	
		Pin piece	Socket piece
0	4		
1	6		
1	9		
2	6		

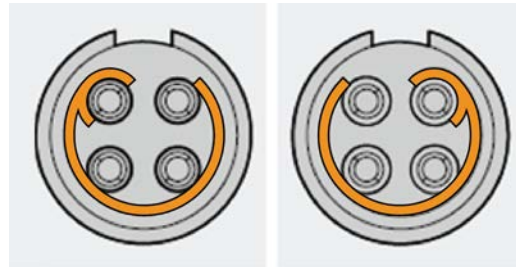
The contact configurations available in the ODU MEDI-SNAP® size 1 are 4 pin – 26 pins, wire gauge range 28 AWG – 20 AWG, contact diameter range - .5 mm – 1.3 mm, solder and PCB terminations available. Insulation body is a peek material.

Contact Configurations

Pin Out Markings



Example of pin guide markings:



The pin out markings for this connector solution: Pin #1 is designated by the half moon marking. The other pin numbers are determined by following the line around or inward to the last pin number as indicated by the examples on this pages.

Contact Configurations

TERMINATION TECHNOLOGIES FOR TURNED CONTACTS

Solder termination

The contacts are mounted in the insulator before the single connectors are assembled. An insulator with pre-installed contacts is referred to as a contact insert.

Crimp termination

Here, the individual contact is connected to the individual wires via deformation in the termination area. Then the contacts are individually installed in the insulator. 8-point deformation is generally used for turned crimp contacts.

PCB Termination

This is only used in the receptacle if the receptacle is to be mounted directly on a printed circuit board (PCB). Further information is available upon request.

SOLDER TERMINATION



CRIMP-CLIP-CONTACT FOR PEEK INSULATOR



PRINT TERMINATION






Insulators with pin contacts fit into the receptacle (or in-line receptacle, as well as into the plug. The same applies to insulators with socket contacts. In general, insulators with socket contacts are installed in the live part (to provide protection from accidental touch). The way of mounting the contacts in the insulator is important because of the termination technology. The termination technology for ODU MEDI-SNAP® includes: soldering, crimping and PCB.

Mechanical Coding

Mechanical Coding Size 1

Angle	Receptacle front view
0°	
40°	
60°	
80°	
170°	
205°	

Mechanical Coding Size 2

Angle	Receptacle front view
60°	
80°	
90°	

Shown here are mechanical coding options in the ODU MEDI-SNAP® series. 0 degree and 40 degree coding are readily available.

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Color Coding and Accessories

Size 1



COLORS

Color code	Color	RAL-Nr. ¹ (similar) Classic
202	Red	3020
203	White	9010
204	Yellow	1016
205	Green	6029
206	Blue	5002
207	Gray	7005
208	Black	9005

Size 2



COLORS

Color code	Color	RAL no. ¹ (similar) Classic
207	Gray	7000
208	Black	9005



	Color	Similar RAL systems		Material
		Design	Classic	
2	Red	030 40 40	3002	Plastic (PSU)
3	White	000 90 00	9003	
4	Yellow	095 80 70	1016	
5	Green	170 60 50	6032	
6	Blue	250 40 40	5019	
7	Gray	000 55 00	7045	
8	Black	000 25 00	9004	



ODU MEDI-SNAP® can be colored coded to the customer specification. Silicone bend sleeves are offered in multiple colors and cable exit sizes. The plug back nut as well as the receptacle front nut are available in 7 different color coding options.

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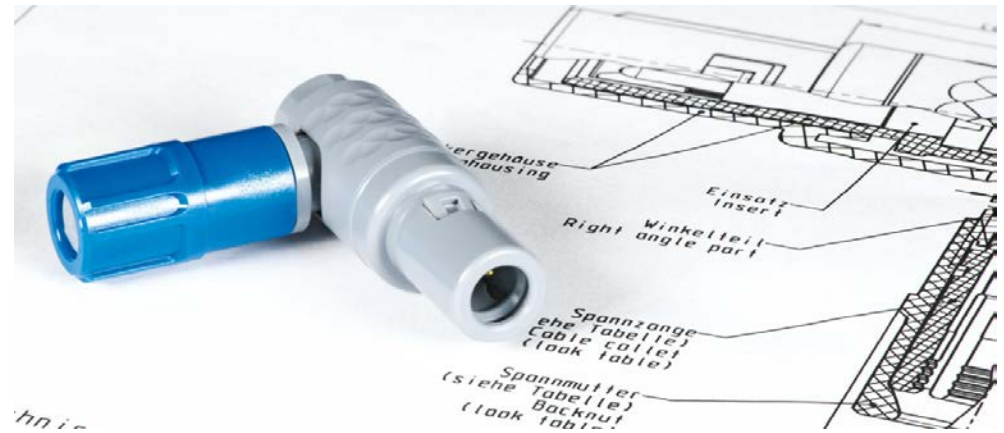
Markets and Applications



ODU MEDI-SNAP® is an ideal connector solution for a wide range of medical, industrial and test & measurement applications including but not limited to catheters, defibrillators, inhalation devices, patient monitoring systems, medical hand tools but also wearable computer devices, vibration sensors, hand controllers, power supplies and power management devices, signal generators, hand held devices, foot switches and LED screens.

Certifications

- ISO 9001
- IATF 16949
- ISO 13485
- ISO 14001
- ISO 50001
- UL, CSA, VG and VDE licenses
- UL certified cable assembly



ODU provides a large portfolio of quality certifications including ISO 9001, IATF 16949, ISO 13485, 14001 and 50001 and also UL, CSA, VG and VDE licenses. ODU cable assemblies are all UL certified.

Summary

ODU MEDI-SNAP® offers:

- Circular Push-Pull locking and Break-Away connector
- Plastic and Metal housing options
- High chemical resistance
- IP50 through IP67 rated
- Wide range of contact configurations
- Multiple mechanical coding and color coding options
- Hybrid connector solutions



ODU MEDI-SNAP® is an advanced plastic connector solution with metal or plastic housing and a Push-Pull or Break-Away function. The connector is ideal for applications that require a space saving design, it offers high chemical resistance, up to 2,000 mating cycles durability and IP ratings: from IP50 to IP67. Additional product benefits include: multiple mechanical coding and color coding options, wide range of contact configurations and hybrid connector solutions.
