

ODU MEDI-SNAP[®] Size 2





ODU MEDI-SNAP®

FEATURES

- Lightweight
- Easy installation and maintenance
- Space-saving design
- High chemical resistance
- Fully sterilizable
- Quick mating with push-pull locking
- Easy-to-release break-away function
- Disposable solution available
- IEC 60601-1 compliant

APPLICATIONS

- Medical
- Industrial
- Digital test and measurement



All shown connectors and cable assemblies are defined without breaking capacity (COC) according to IEC 61984:2008 (VDE 0627:2009-11).

Unless otherwise explicitly stated (for example: mains and high voltage), all shown connectors are rated to safety extra low voltage (SELV) of less than 50 V AC / 75 V DC, according to IEC 61140:2016 [VDE 0140-1:2016-11]. For more details, please refer to page <u>110</u>.

ODU MEDI-SNAP $^{\scriptscriptstyle (\! 0\!)}$ has UL recognition as described under file E110586.

Issue: 2023-05

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 MEDI-SNAP® PLASTIC HOUSING SIZE 2 – SUMMARY

The ODU MEDI-SNAP[®] with plastic housing in size 2 is coded by pin and groove. These circular connectors can have a variety of configurations: numerous styles of connectors and receptacles as well as various termination types, contact inserts and color codings.

- Coding over pin and groove
- 8 color codings
- 3 mechanical codings
- 3–26 contacts
- 2 termination types
- Contacts for solder and PCB termination
- A selection of numerous connectors and receptacles
- IP50 and IP64 available in mated condition
- Up to 5,000 mating cycles



Plastic



¹As per IEC 60601-1:2012 (VDE 0750-1:2013-12). Max working voltage of the medical device 250 V AC (degree of pollution 2). All cable assemblies in the catalog fulfill 1M00P/1M0PP. To ensure the required clearence and creepage distance in the termination

area of plug style A5, a corresponding potting sleeve must be used (not included in the scope of delivery).

STRAIGHT PLUG

Push-pull styles



¹Back nuts for cable bend reliefs have to be ordered in the same color as the connector housing. The color coding is based on the cable bend relief. ²Cable bend reliefs have to be ordered separately (see page <u>79</u>).

For support and customer specific solutions: <u>sales@odu.de</u>

CABLE ASSEMBLY – STRAIGHT PLUG



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BREAK-AWAY PLUG

Break-away styles



¹ In the case of this style, the connector housing as well as the insulator are made of the housing material PSU.

CABLE ASSEMBLY – BREAK-AWAY PLUG



RECEPTACLE



¹ Depending on the insert

CABLE ASSEMBLY - RECEPTACLE



RECEPTACLE



¹ Depending on the insert

CABLE ASSEMBLY - RECEPTACLE



MECHANICAL CODING



HOUSING MATERIAL AND COLOR CODING

For autoclaving, choose PEI for push-pull plugs or PSU for break-away plugs. All receptacles and color codings are autoclavable.

| Color | Material ¹ | | Housing m | aterial | | C | olor coding | |
|--|-------------------------|-------------------|--------------------|------------|---|------------------|-------------------------|---|
| (similar classic RAL) | | Push-pull plug | Break-away plug | Receptacle | | Plug back nut | Receptacle front nut | |
| Gray (7045) | PSU | • | • autoclavable | • | 7 | • | • | 7 |
| Gray (7045) | PEI | • autoclavable | - | • | G | • | • | 7 |
| Black (9004) | PSU | • | ● autoclavable | • | 8 | • | • | 8 |
| Black (9004) | PEI | • autoclavable | - | • | S | • | • | 8 |
| Red (3002) | PSU | 0 | 0 | 0 | 2 | • | • | 2 |
| White (9003) | PSU | 0 | 0 | 0 | 3 | • | • | 3 |
| Yellow (1016) | PSU | 0 | 0 | 0 | 4 | • | • | 4 |
| Green (6032) | PSU | 0 | 0 | 0 | 5 | • | • | 5 |
| Blue (5019) | PSU | 0 | 0 | 0 | 6 | • | • | 6 |
| Orange (2003) | PSU | 0 | 0 | 0 | 9 | 0 | 0 | 9 |
| Standard On request | | | | | | | | |
| For more detailed info | rmation on the tania of | " | | | | | | |

For more detailed information on the topic of autoclaving" see page 121

- ¹ For information about biocompatible materials, please contact sales@odu-de
- ² Back nuts for cable bend relief have to be ordered in the same color as the connector housing. Please order bend relief separately.

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CONTACT INSERT

For push-pull plugs and receptacles For break-away plug A5, see page <u>64</u>

All working voltages, unless otherwise stated: < 50 V AC / < 75 V DC Please refer to <u>Technical Information</u> for further information and also for cases where a higher voltage is needed.



on voltage rating on page <u>110</u> ³PCB layouts, see page <u>76</u>; print termination only available for receptacle style 5

SPECIAL-CONTACT INSERT

Special contact inserts for main and high voltage



CABLE TYPE

| Nur | nber of | Conta | act typ | be | | | S | Single wi | res ¹ | | | | | C | able PV(| Black | unshield | ed | | | Cable PVC White unshielded | | | |
|-----|------------|----------|---------|----|---|-------|---|-----------------|------------------|----|----|--------------|--------------|----|---------------------|---------|----------------|-----|----|---|------------------------------------|------------------------------------|------------------|------------|
| con | tacts | mination | cket | | | Count | | Wire diamet | ter | | | C | Count | 01 | uter cab diamete | le r | Wire diamet | er | | | Count | Outer cable diameter | Wire diameter | |
| | | Ter | S | 'n | n | umber | | mm | | AW | /G | nı | umber | | mm | | mm | | AW | G | number | mm | mm | AWG |
| | | Solder | L | - | | ZP | | 2.15 ± 6 | 9.10 | 18 | B | | | | | - | | | | | | (| С | |
| 0 | 4 | | - | М | | | | n.a. | | | _ | | ZO | 6. | 10 ± 0.2 | 20 | 1.80 ± 0 | .20 | 18 | | | | | |
| | | Solder | L | - | | ۷N | | 1.50±0 | 9.05 | 21 | U | | 714 | - | 40 1 0 7 | - | 1 50 1 0 | 20 | 20 | | | (| С | |
| | | | - | M | | 71 | | n.a. 130 ± 6 | 0.5 | 2 | 2 | | ΖM | 5. | 40 ± 0.4 | 20 | 1.50±0 | .20 | 26 | | | | | |
| | | Solder | - | M | | 26 | | 1.30 ± 0 | 5.05 | 21 | 2 | | 7K | 7 | 20 + 0 2 | 20 | 1 30 + 0 | 20 | 22 | | | (| C | |
| 1 | 2 | | L | - | | ZH | | 1.00 ± 0 | 0.05 | 21 | 6 | | 2.11 | | 20 2 0.1 | | 1.0010 | .20 | | | | | | |
| | | Solder | - | М | | | | n.a. | | | | | ZI | 5. | 90 ± 0.2 | 20 | 1.00±0 | .20 | 26 | | | (| C | |
| | | | L | - | | ZL | | 1.30 ± 0 | 0.05 | 2 | 2 | | | | | ~ | | | | | | | | |
| 1 | c | Solder | - | М | | | | n.a. | | | | | | | | 0 | | | | | | | 5 | |
| 1 | 0 | Solder | L | - | | ZH | | 1.00±0 | 9.05 | 20 | 6 | | | | | - | | | | | | | 2 | |
| | | 501001 | - | М | | | | n.a. | | | | | ZG | 6. | 50 ± 0.2 | 20 | 1.00 ± 0 | .20 | 26 | | | | | |
| | | Solder | L | - | | ZL | | 1.30 ± 0 | 0.05 | 2 | 2 | | | | | 0 | | | | | | (| 2 | |
| 1 | 9 | | - | М | | | | n.a. | | | _ | | | | | | | | | | | | | |
| | | Solder | L | - | | ZH | | 1.00±0 | 9.05 | 20 | 6 | | 70 | - | 40.07 | - | 4.00 - 0 | 20 | 20 | | | (| С | |
| - | | | - | м | | | | n.a. | | | | | 26 | ٢. | 10 ± 0.4 | 25 | 1.00±0 | .20 | 26 | , | | | | |
| 2 | 6 | Solder | L | - | | ZT | | 0.90 ± 0 | 0.05 | 21 | В | | | | | - | | | | | | (| C | |
| | | | - | М | | | | n.a. | | | | | ZS | 7. | 40 ± 0.2 | 25 | 0.90 ± 0 | .20 | 28 | | | (| C | |
| | | | | | | | | | | | | | | | | | | | | | | | C | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | C | Un request |
| | | | | | | | | | L | | | | | | | | | | | | ¹ For assem bend relief | bly with rece ^F only | ptacle styles | s without |
| | | | | | | | | | | | | | 5 | | | | | | | | | | | |
| | | | | | | | | | | | | \mathbf{V} | \mathbf{V} | | | | | | | | | | | |
| 1 | 2 | 3 | 2 | ļ | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | | | | | |
| С | | | 2 | | М | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

| acts | | Contac | ct typ | e | | Single wires | | | Cable PVC Bla | ck unshielded | | Cable PVC White unshielded | | | |
|------|------------------|-------------|--------|--------|-----------------|------------------|-----|-----------------|----------------------------------|------------------|-----|----------------------------|----------------------------------|------------------|-----|
| - | Number of contac | Termination | Socket | Pin | Count number | Wire diameter | AWG | Count number | Outer cable diameter in mm | Wire diameter | AWG | Count number | Outer cable diameter in mm | Wire diameter | AWG |
| 0 | 3 | Solder | L - | - M | | 0 | | | (|) | | 0 | | | |
| 0 | 5 | Solder | L _ | - м | 0 | | | | C |) | | ο | | | |

 \bigcirc On request

CONTACT INSERT STYLE A5



All working voltages, unless otherwise stated: < 50 V AC / < 75 V DC Please refer to <u>Technical Information</u> for further information and also for cases where a higher voltage is needed.





¹ Derating factor, see page <u>116</u>.
 ² Acc. to EIA-364-20F:2019-02, further information on voltage rating on page <u>110</u>

SPECIAL-CONTACT INSERT STYLE A5

CAUTION: Style A5 (5-pos.) mateable with the following receptacles: G12MC7-P05LMM9-0001 G42MC7-P05LMM9-0071 G52MC7-P05LMM9-0002 Other variants upon request.



CABLE TYPE

| | Ś | Contact typ | be | | Cable PVC Bla | ck unshielded | | | Cable PVC Wh | ite unshielded | |
|---|-------------------|-------------|-----|-----------------|----------------------------------|------------------|-----|-----------------|----------------------------------|------------------|-----|
| | Number of contact | Termination | Pin | Count number | Outer cable diameter in mm | Wire diameter | AWG | Count number | Outer cable diameter in mm | Wire diameter | AWG |
| 0 | 5 | Solder | м | 0 | | | | | (|) | |

 \odot On request

PCB LAYOUT

For PCB contacts (Size 2)

RIGHT-ANGLED PCB CONTACT IN THE RECEPTACLE

| A | \ | | | | RI Fo | GHT- r style | ANG e G5 | LED | PCB | CON. | ГАСТ | | | | | | | | | IP50 |
|---|---|---|---|---|----------|-----------------|-------------|-----|-----|-------|------|----|----|----|----|----|----|----|----|------|
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Con | tact | | Ter | minat | ion | | | | | | | | | |
| | | | | | | diam | neter | | d | iamet | er | | | | | | | | | |
| | | | | | | m O | .5 | | | 0.5 | | | | | | | | | | |
| | | | | | | 0 | .7 | | | 0.6 | | | | | | | | | | |
| | | | | | | 1 | .3 | | | 0.8 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | |
| | Т | | 2 | м | | 7 | | Ь | | | | | | | | ٨ | 0 | | 4 | |

CABLE COLLET SYSTEM

For strain relief of push-pull plugs

Cable diameter

CABLE BEND RELIEF

For push-pull plug style 4

| SILICONE CABLE BENI | DRELIEF |
|---|---------|
| | |
| ST North St | 43.7 |

| Part number | Cable d | iameter |
|----------------|---------|---------|
| | min. | max. |
| KM2.023965.032 | 3.2 | 4.7 |
| KM2.023965.047 | 4.7 | 6.2 |
| KM2.023965.062 | 6.2 | 7.7 |
| KM2.023965.077 | 7.7 | 9.2 |
| | | |

| Color code | Color (Similar classic RAL) |
|---------------|--|
| 207 | Gray (7000) |
| 208 | Black (9005) |

COLOR CODE FOR CABLE ASSEMBLY (SIMILAR CLASSIC RAL)

STRAIGHT CABLE OUTLET BACKSHELL FOR BREAK-AWAY PLUG

Straight version includes cable collet system for strain relief.

| Part number | Material | Cable diameter | Color code | Color (Similar classic RAL) |
|------------------|------------------|----------------|------------|-----------------------------|
| | | mm | | |
| 026.KM2.129.9045 | | > 3.1 - 4.5 | 07 | Gray (7045) |
| 026.KM2.129.9060 | PSU/ | > 4.5 - 6.0 | 08 | Black (9004) |
| 026.KM2.129.9075 | PEI ¹ | > 6.0 - 7.5 | | |
| 026.KM2.129.9090 | | > 7.5 - 9.0 | | |
| 1 | | | | |

¹ Housing and cable clamp PSU, back nut PEI

TRANSPORTATION CAP

Applicable to all straight plugs as well as break-away plugs

| Part number | Material | Color (similar classic RAL) |
|---------------------|----------|-----------------------------|
| 922.000.002.000.079 | TPE | Yellow (1016) |

INTERNATIONAL PROTECTION CLASSES

Acc. IEC 60529:1989 (VDE 0470-1:2014)

| | Code letters |) | First code number | | Se | Second code number | | | | | |
|--------|--|-----------------|--|------|---|----------------------|---|--|--|--|--|
| (Inte | rnational Protection | nj (Deş haza | rees of protection against access to rdous parts respectively against solid foreign objects] | | Uegre | es of protection aga | instwater) | | | | |
| | ۱۲ | | 6 | | | | | | | | |
| Code | Protectio | on against acce | ess to hazardous parts / | Code | Pro | otection agains | st harmful effects | | | | |
| number | Protection | against ingres | gress of solid foreign objects number due t | | | | gress of water | | | | |
| 0 | No protection | | No protection against contact / No protection against solid foreign objects | 0 | No protection against water | | No protection against water | | | | |
| 1 | Protection against large foreign objects | | Protection against contact with the back of the hand / Protection against solid foreign objects Ø≥ 50 mm | 1 | Protection against dripping water | | Protection against vertically falling waterdrops | | | | |
| 2 | Protection against medium-sized foreign objects | | Protection against contact with the fingers / Protection against solid foreign objects $\mathcal{O} \ge 12.5 \text{ mm}$ | 2 | Protection against angular dripping water (from angles) | | Protection against waterdrops falling at an angle (any angle up to 15° of the vertical) | | | | |
| 3 | Protection against small foreign objects | | Protection against contact with tools / Protection against solid foreign objects Ø≥ 2.5 mm | 3 | Protection against spray water | | Protection against spray water (any angle up to 60° of the vertical) | | | | |
| 4 | Protection against granular foreign objects | | Protection against contact with a wire / Protection against solid foreign objects Ø≥1.0 mm | 4 | Protection against splash- ing water | | Protection against splashing water from any direction | | | | |
| 5 | Dustproof | | Protection against contact with a wire/Protection against uncontrolled ingress of dust | 5 | Protection against water jet | | Protection against water jet from any direction | | | | |
| 6 | Dustproof | | Protection against contact with a wire / Complete protection against ingress of dust | 6 | Protection against power- ful water jet | | Protection against powerful water jet from all directions | | | | |
| | | | | 7 | Protection against the effects of temporary immersion in water | | Protection against ingress of water negatively impacting the proper function by temporary submersion into water | | | | |
| | | | | 8 | Protection against the effects of continuous immersion in water | | Protection against ingress of quantities of water negatively impacting the proper function by continuous submersion into water | | | | |
| | | | | 9 | Protection against high pressure water jet featuring high tempera- tures | | Protection against water from all directions characterized by high pressure and high temperatures | | | | |

GENERAL NOTE

The connectors and cable assemblies listed in this catalog are generally designed as connectors without breaking capacity unless otherwise stated. The rated voltage specification given on the respective data sheet must be respected. Suitable precautionary measures must be taken to ensure that people do not come into contact with live conductors during installation and operation. All entries in this catalog were thoroughly reviewed before printing. ODU reserves the right to make changes based on the current status of knowledge without prior notice and without being obliged to provide replacement deliveries or refinements of older designs.

Printed on certified recycled paper.

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