

IEC 60601-1 Compliant circular connector



MEDISCHE ELEKTRONICA
Ontwikkelingen, normen en toepassingen

7 februari 2023 | FHI Leusden

How a connector Supplier can help you to be conform with the Patient and Operator protection?

Challenges
for Medical
Product

2MOPP &
2MOPP

IEC60601-1

EMI
shielding



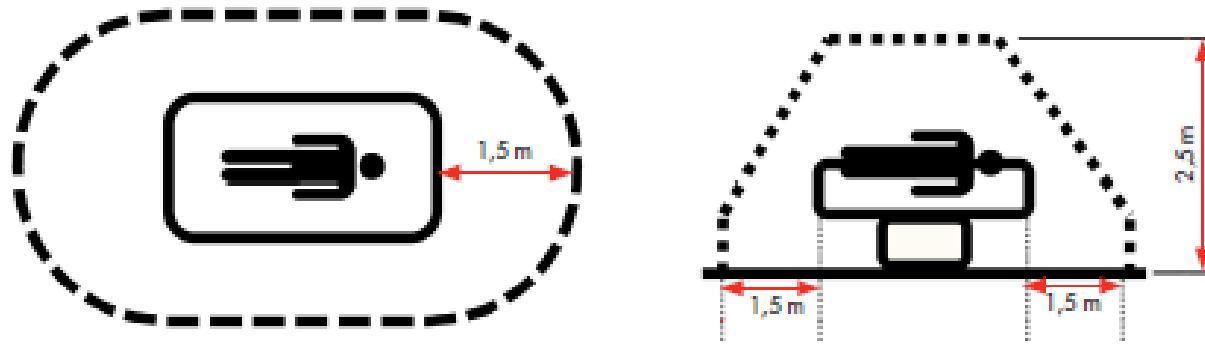
CREEPAGE AND CLEARANCE DISTANCES FROM THE IEC 60601-1

- IEC 60601-1 demands that the medical equipment that can come into contact with patients is equipped with two independent safety precautions. This guarantees the electrical safety even if one of the precautions fails.

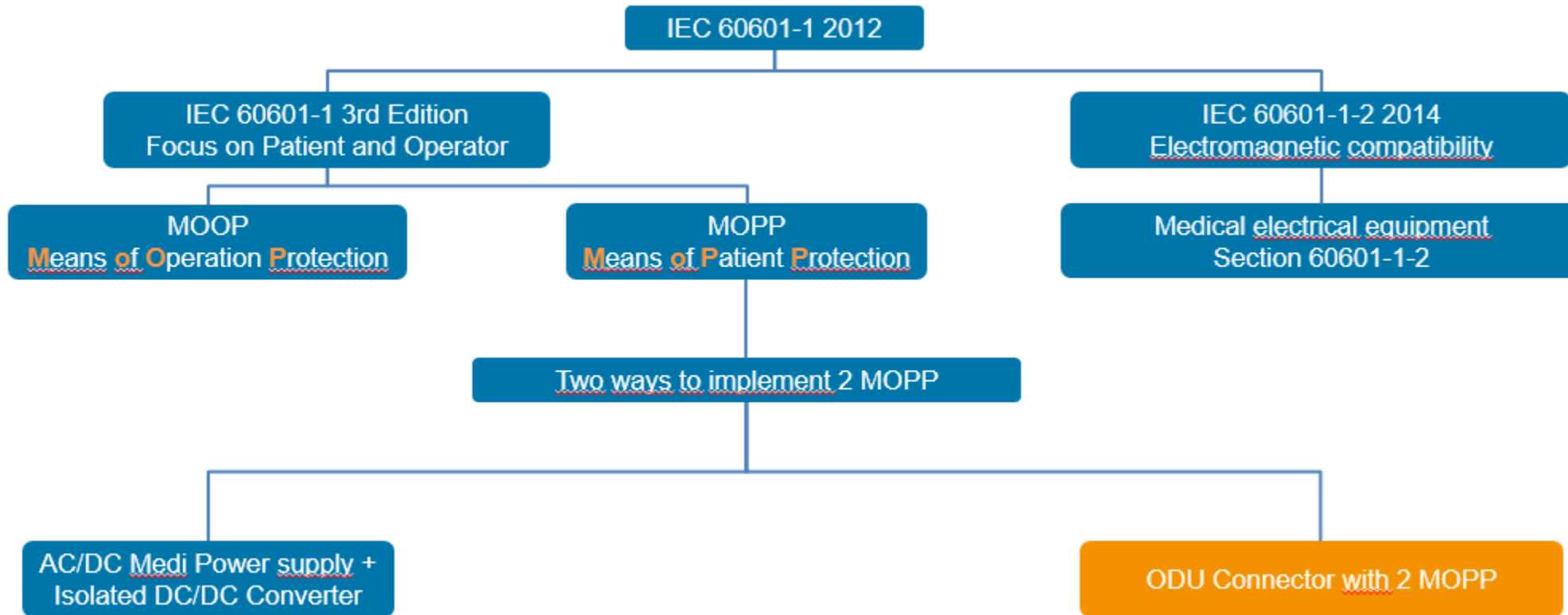
DIRECT PATIENT ENVIRONMENT ACCORDING TO IEC 60601-1

The following terms are defined in the IEC 60601-1 standard:

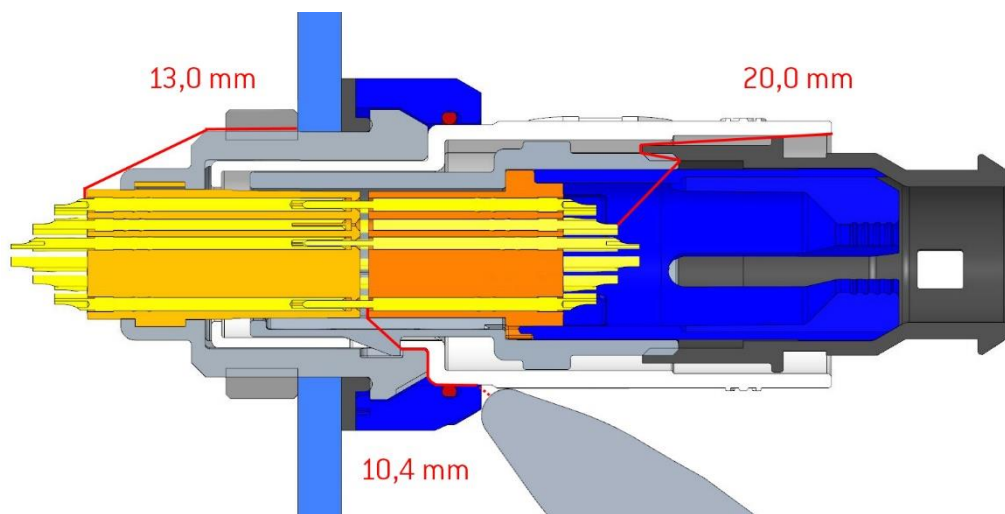
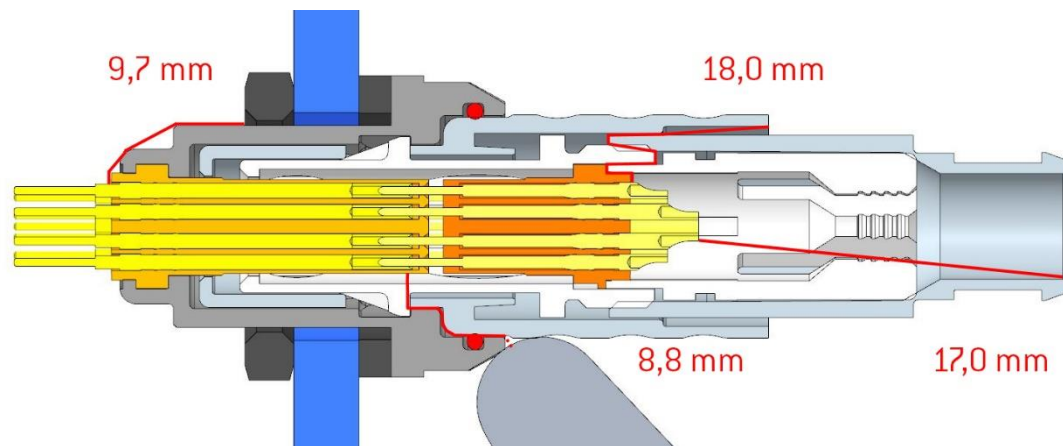
- The patient environment is any area in which intentionally or unintentionally, an electrical connection can be established between the patient and or the operator and parts of the ME (Medical Equipment).
- The patient is a living being who is undergoing a medical, surgical, or dental procedure. This environment is also referred to as an active medical product in the MDR (Medical Devices Regulation), so by complying with IEC 60601-1, you also meet part of the MDR.
- The IEC 60601-1 standard only applies to devices and systems that are in direct physical or electrical contact with the patient “in the immediate vicinity of the patient”.



OVERVIEW OF STANDARDS TO IEC 60601-1



PLASTIC CONNECTER ODU MEDI-SNAP®



ODU MEDI-SNAP® Size 1

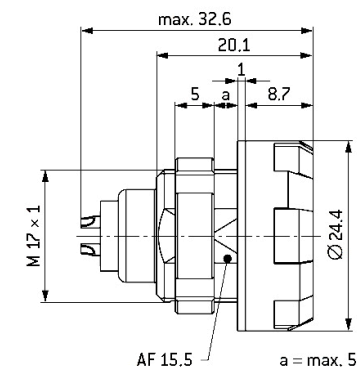
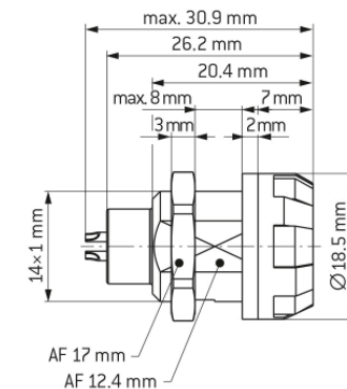
1MOPP and 2MOPP

IP protection: IP50 and IP64

Number of contact: 2 to 14

Nominal current: 4 A to 15 A

Operating voltage: to 50 V AC / 75 V DC



ODU MEDI-SNAP® Size 2

1MOPP and 2MOPP

IP protection: IP50 and IP64

Number of contact: 4 to 26

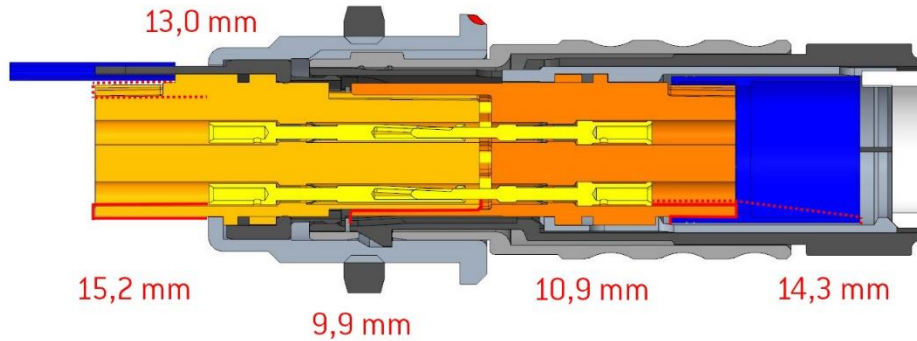
Nominal current: 4 A to 15 A

Operating voltage: to max. 50 V AC / 75 V DC



METAL-CONNECTOR

ODU MINI-SNAP® – SERIES L, SIZE 2 (UP TO IP50)



ODU MINI-SNAP® Size 1, 2, 3

1MOPP and 2MOPP

Connector in Serie L and Serie K available

IP protection: IP50 and IP64

Size:

Numbers of contacts

Max. Operating Voltage (AC/DC):

Nominal current: max. 7 A

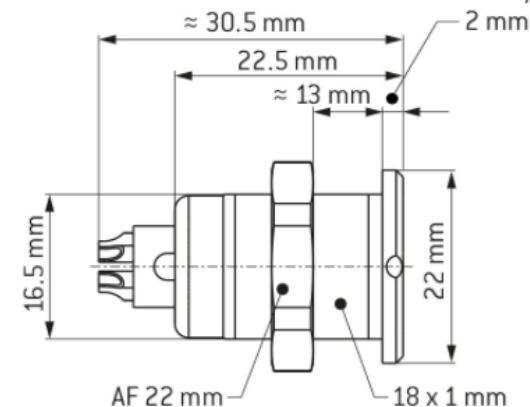
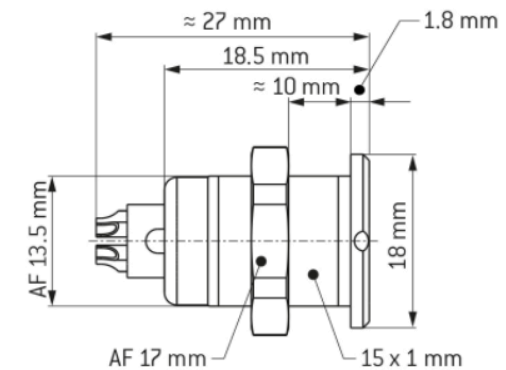
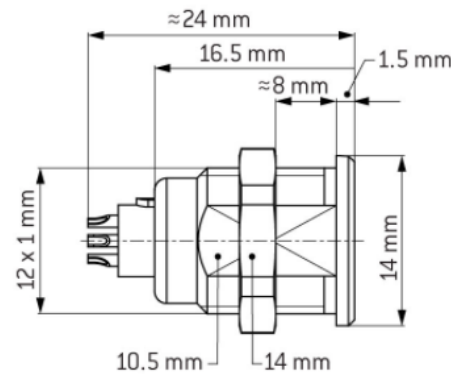
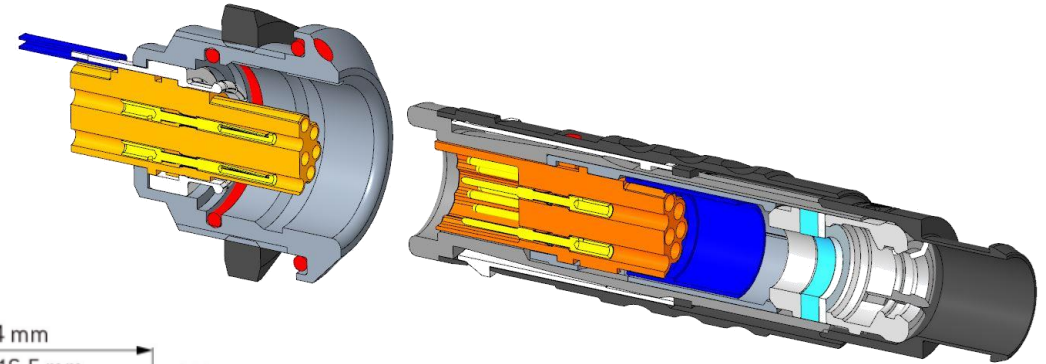
The insulators are with different contacts from AWG28 / 0,08 mm² to AWG20 / 0,5 mm² equippable.

Normal Gender (Female on the Receptacle)

and Reverse-Gender (Female on the Plug) available

METAL-CONNECTOR

ODU MINI-SNAP® – SERIES K (UPTO IP67/68)

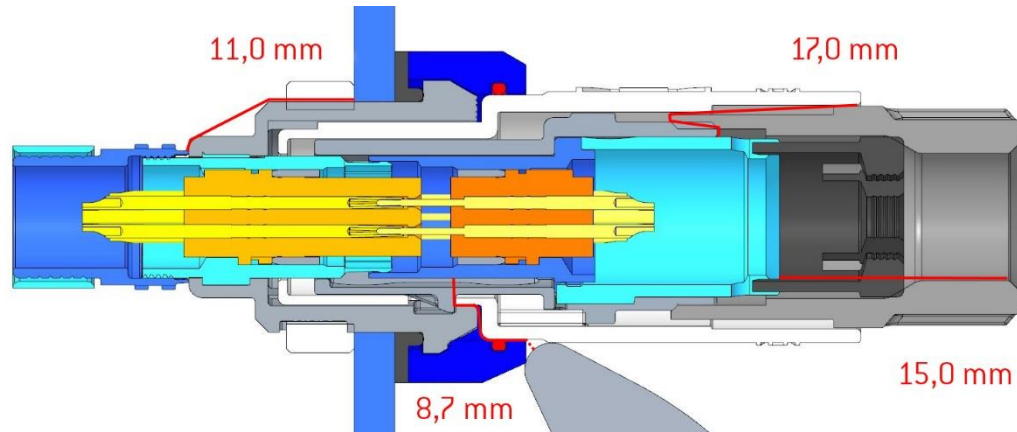


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SHIELDED PLASTIC CONNECTOR

ODU MEDI-SNAP® – SIZE 2 WITH SHIELDED 360° TUNNEL



ODU MEDI-SNAP® Size 2 with 360° shielded tunnel

1MOPP and 2MOPP

All Series L contact insert from Size 1 are fit here

IP protection: IP50 and IP64

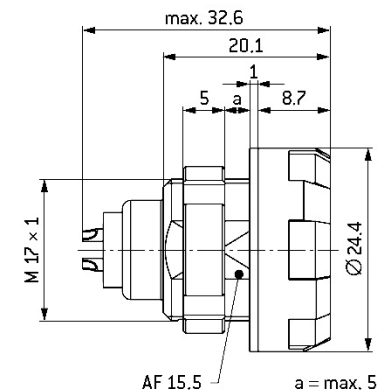
Numbers of contacts: 2 to 16

Special data inserts available

(USB 2.0¹, USB 3.2 Gen1x1¹, CAT5 100Mbit, CAT5e 1Gbit)

Norminal current: 5 A to 14 A

Operating voltage: to max. 50 V AC / 75 V DC



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QUESTION TO IEC NORM 60601-1?



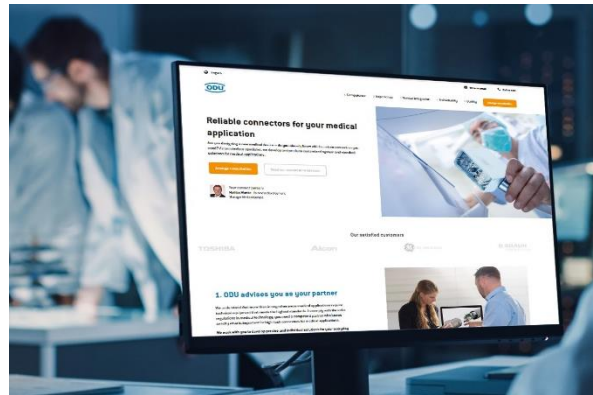
Mathias Wuttke
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ODU GmbH & Co. KG

Do you have any further questions about the IEC 60601-1 or the standard-complaint solutions from ODU?

Please send us an E-Mail to:

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mvoostrum@telereurope.com



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