



# PRODUCT MANUAL

## powerCON® TRUE1® | NAC3F-TRUE1-S NAC3F-TRUE1-L

### 1 APPLICATION & SAFETY INSTRUCTION

#### ✓ IP 65 & IP 67 RATED

#### APPLICATION:

- The powerCON® TRUE1® system is certified as appliance couplers with breaking capacity according to IEC 60320-1, EN IEC 60320-1, UL 60320-1, CSA C22.2 No. 60320-1.
- It serves to supply power to an appliance and from an appliance to other equipment.
- To be installed by qualified person only.
- Appliance couplers acc. to IEC 60320-1 are suitable to be used in cord sets and interconnection cord sets acc. to IEC 60799

#### POWER IN

APPLIANCE INLET  
NAC3MPX-TOP  
NAC3MPX-WOT-TOP  
NAC3MPX-TRUE1



CONNECTOR  
NAC3F-TRUE1-S  
NAC3F-TRUE1-L

#### POWER OUT

APPLIANCE OUTLET  
NAC3FPX-TOP  
NAC3FPX-WOT-TOP  
NAC3FPX-ST-TOP  
NAC3FPX-TRUE1



PLUG CONNECTOR  
NAC3M-TRUE1-S  
NAC3M-TRUE1-L

#### POWER IN / POWER OUT ► Combination

APPLIANCE INLET / APPLIANCE OUTLET  
NAC3PX-TOP  
NAC3PX-TRUE1



CONNECTOR  
NAC3F-TRUE1-S  
NAC3F-TRUE1-L

PLUG CONNECTOR  
NAC3M-TRUE1-S  
NAC3M-TRUE1-L

Products are in  
compliance with:

IEC 60320-1  
EN IEC 60320-1



UL 60320-1  
CSA C22.2 No. 60320-1



Ratings:

16A 250V AC

20A 250V AC

Conductor cross section:

1.5 - 2.5 mm<sup>2</sup>

14 - 12 AWG

#### CABLE LIST

Approved cables:	3 x 1.5 mm <sup>2</sup>	3 x 2.5 mm <sup>2</sup>
■ H07RN-F	-S	-L
■ H05VV-F	-S	-S

Approved cables:	14/3 AWG	12/3 AWG
■ SOOW	-L	-L
■ SJOOW	-S	-L



## 2 ASSEMBLY INFORMATION

**(A)**

Place the bushing (1) and chuck (2) over the cable.

**Important:** Chuck and Bushing cannot be placed over the cable after the assembly of the insert.

(3) For easier assembly please use a cable lubricante.

**(B)**

■ IEC 60320-1  
EN IEC 60320-1

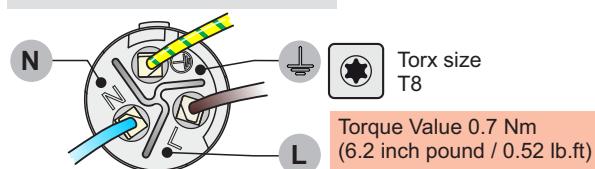


Prepare cable as shown.

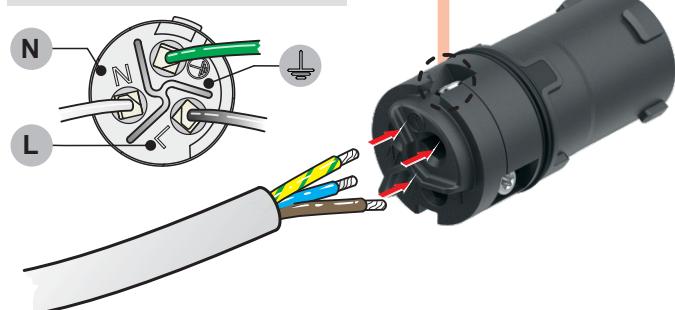
■ UL 60320-1  
CSA C22.2 No. 60320-1

**(C)**

IEC 60320-1  
EN IEC 60320-1



UL 60320-1  
CSA C22.2 No. 60320-1



Slide the cable into the contacts and clamp with the screw with Torx size T8.

Typical  
Wiring

IEC 60320-1  
EN IEC 60320-1

UL 60320-1  
CSA C22.2 No. 60320-1

L ⇒	brown	black
N ⇒	blue	white
⏚ ⇒	green/yellow	green

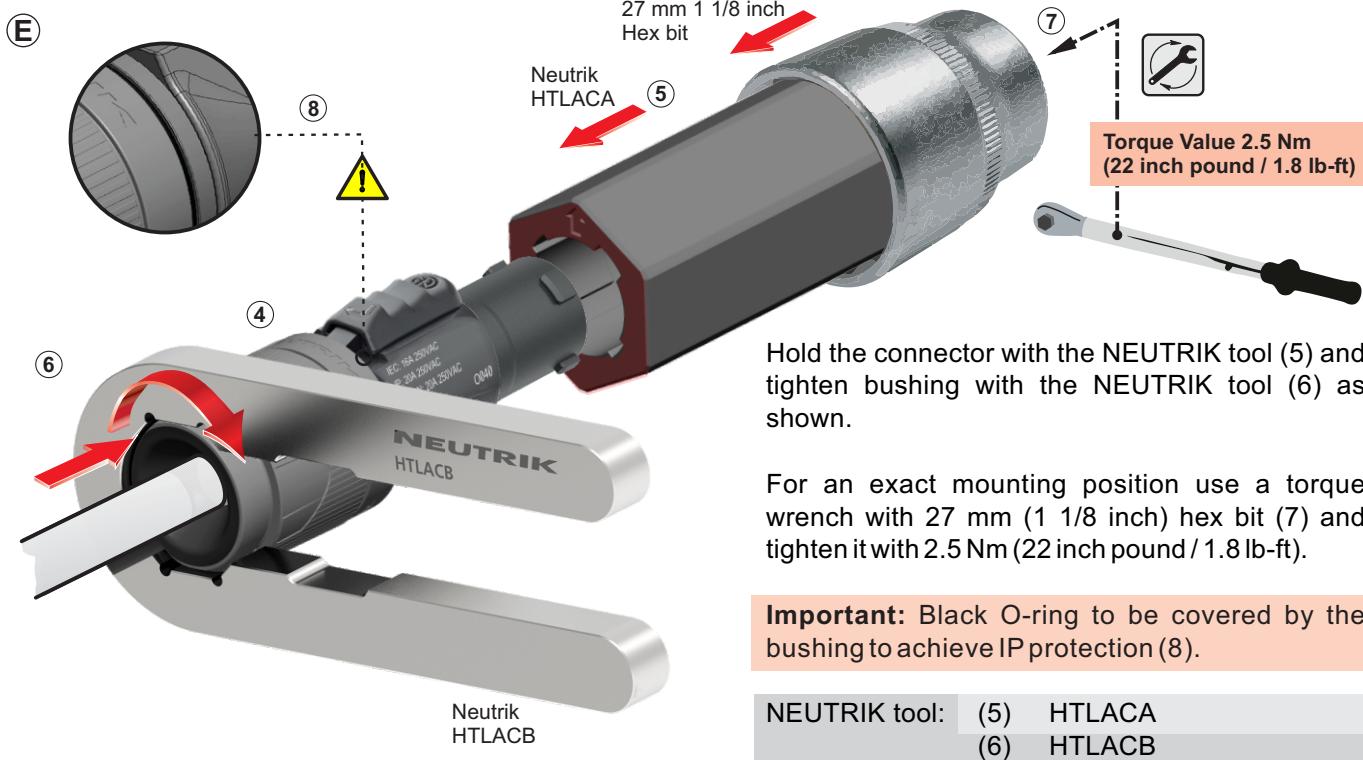
**(D)**

Position chuck (1) on insert (2).

Slide insert (2) with chuck (1) together into housing (3).

**Important:** Align the chuck by positioning the nose into keyway.

Slide bushing (4) over chuck (1).



Hold the connector with the NEUTRIK tool (5) and tighten bushing with the NEUTRIK tool (6) as shown.

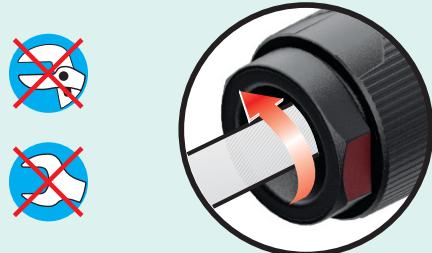
For an exact mounting position use a torque wrench with 27 mm (1 1/8 inch) hex bit (7) and tighten it with 2.5 Nm (22 inch pound / 1.8 lb-ft).

**Important:** Black O-ring to be covered by the bushing to achieve IP protection (8).

NEUTRIK tool: (5) HTLACA  
(6) HTLACB

### 3 FOR DISASSEMBLY

- 1. Use the Neutrik tool HTLACB.
- 2. Position the tool on the surfaces and open the clamping sleeve.



### 4 SAFETY INFORMATION

#### CAUTION

To ensure protection category, do not expose the connection to bending forces (e.g. do not attach loads to the cable, no free-dangling cable windings etc.).



#### SAFETY WARNING

For safety reasons the appliance couplers must be replaced in case of any broken parts or excessive wear and tear.



## 5 Application and Safety Instructions

### A Assembly

- When assembling and processing the product, ensure the use of appropriate personal protective equipment.
- Neutrik components must only be assembled with designated and specified components.
- Replacement parts are suitable only when used in combination with the designated components. The product's characteristics are guaranteed only in the intended combination.

### B Application

- The product is exclusively intended for installation in electronic equipment or similar devices.
- The product is not intended for use in medical applications.
- The product is not intended for use in potentially explosive or flammable environments.
- Appliance couplers are not intended for use as climbing aids. Caution: Electrical hazards!
- For indoor use only .
- Rated values are marked on the product and the smallest packaging unit.

### C Operation

- The safety of this product was evaluated according to standard specifications under laboratory conditions
- After installation in an electronic device or similar, the product safety in the intended application must be ensured by the respective party involved.
- Before plugging in, check the contact area for dry surfaces.
- Product surfaces may cause burns at elevated ambient temperatures. Ensure the use of appropriate protective equipment.
- The customer is responsible for ensuring that the device is de-energized when plugged in with male contact.
- Neutrik Products are only allowed to use with compatible products from Neutrik Group brands.
- The product is unsuitable for use by vulnerable consumers.
- Connectors and plug connectors complying with this part of IEC 60320-1, EN IEC 60320-1, UL 60320-1, CSA C22.2 No. 60320-1 are suitable for normal use at ambient temperatures not normally exceeding +40 °C, but their average over a period of 24 h does not exceed +35 °C, with a lower limit of the ambient air temperature of -5 °C.

### D Cleaning

- Clean only with dry and lint-free materials or compressed air.
- The product must not be cleaned while under load. The product may only be cleaned while it is not connected to any voltage and without the use of cleaning agents.

### E Damages

- Handle products with care.
- In case of visible damages, check the suitability of the product for use.





## 6 Compatibility information

The products are suitable for use with the products listed below. When used with other products, the suitability and safety must be assessed before commissioning and appropriate safety measures must be taken if necessary.

	NAC3FPX-TRUE1	NAC3MPX-TRUE1	NAC3PX-TRUE1
<b>NAC3F-TRUE1-S NAC3F-TRUE1-L</b>	Not applicable	Certified acc. to: UL 60320-1 EN IEC 60320-1	Certified acc. to: UL 60320-1 EN IEC 60320-1
<b>NAC3M-TRUE1-S NAC3M-TRUE1-L</b>	Certified acc. to: UL 60320-1 EN IEC 60320-1	Not applicable	Certified acc. to: UL 60320-1 EN IEC 60320-1
NAC3FX-W-TOP NAC3FX-W-TOP-L Certified in combination with NAC3MPX-TOP & NAC3PX-TOP	Not applicable	Tested acc. to: UL 60320-1 EN IEC 60320-1	Tested acc. to: UL 60320-1 EN IEC 60320-1
NAC3MX-W-TOP NAC3MX-W-TOP-L Certified in combination with NAC3FPX-TOP & NAC3PX-TOP	Tested acc. to: UL 60320-1 EN IEC 60320-1	Not applicable	Tested acc. to: UL 60320-1 EN IEC 60320-1

## ■ Information about the intended combinations and their IP protection class.

	NAC3M-TRUE1-S	NAC3M-TRUE1-L	NAC3F-TRUE1-S	NAC3F-TRUE1-L
<b>NAC3FPX-TRUE1</b>	IP65 / IP67	IP65 / IP67	Not applicable	Not applicable
<b>NAC3MPX-TRUE1</b>	Not applicable	Not applicable	IP65 / IP67	IP65 / IP67
<b>NAC3PX-TRUE1</b>	IP65 / IP67	IP65 / IP67	IP65 / IP67	IP65 / IP67
<b>NAC3FPX-TOP</b>	IP65	IP65	Not applicable	Not applicable
<b>NAC3MPX-TOP</b>	Not applicable	Not applicable	IP65	IP65
<b>NAC3PX-TOP</b>	IP65	IP65	IP65	IP65

MATED CONNECTOR



MATED CONNECTOR



## 7 More Information on the website

<https://www.neutrik.com/en/products/audio/powercon>



Document No.: BDA 697 V5  
Date: 2024-10-07

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Neutrik AG | LI-9494 Schaan  
[www.neutrik.com](http://www.neutrik.com)



# APPLICATION & ASSEMBLY INSTRUCTION

## NAC3MX-W-TOP | powerCON® TRUE1® TOP

### A APPLICATION INSTRUCTION

#### Application:

- The powerCON® TRUE1® system is certified as a connector with breaking capacity according IEC 60320-1.
- It is intended for use as an appliance coupler and interconnection coupler.
- It serves to supply power to an appliance and from an appliance to other equipment.
- To be installed by qualified person only.

#### CONNECTOR ASSIGNMENT:

##### APPLIANCE INLET

NAC3MPX-TOP  
NAC3MPX-WOT-TOP  
**Power IN** ➔



NAC3FX-W-TOP  
(Connector)

##### APPLIANCE OUTLET

NAC3FPX-TOP  
NAC3FPX-WOT-TOP  
NAC3FPX-ST-TOP  
**Power OUT** ➕



NAC3MX-W-TOP  
(Plug connector)

##### APPLIANCE INLET / OUTLET

► Combination  
NAC3PX-TOP  
**Power IN** ➔



**Power OUT** ➕

NAC3MX-W-TOP  
(Plug connector)

powerCON® TRUE1® TOP line is full backward compatible with the preceding powerCON TRUE1 products.

#### Approval based:

##### VDE

EN 60320-1



##### UL 60320-1

CAN/CSA-C22.2 No. 60320-1



#### Rating:

250 V ac / 16 A

#### Cable Type:

H05VV-F3G 1.0 mm<sup>2</sup>, Length max. 2 m

H05VV-F3G 1.5 - 2.5 mm<sup>2</sup>

H07RN-F3G 1.5 mm<sup>2</sup>

#### Cable O.D.:

6.0 - 12.0 mm

250 V ac / 20 A

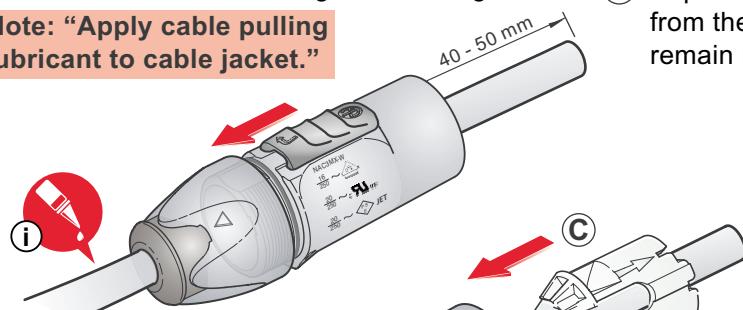
SJTOW, SJOOW 3 x 12 AWG

6.0 - 12.0 mm

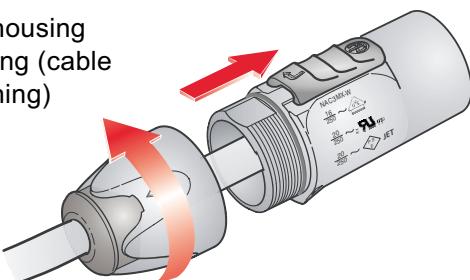
### B ASSEMBLY INFORMATION

- A** Insert cable into the bushing and housing.

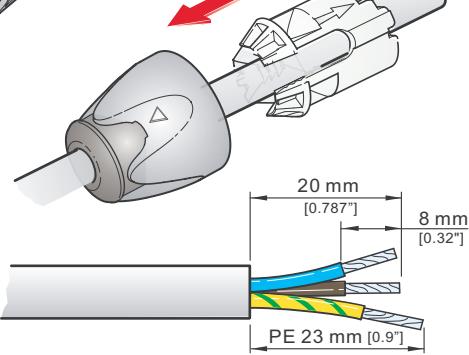
Note: "Apply cable pulling lubricant to cable jacket."



- B** Separate the housing from the bushing (cable remain in bushing)

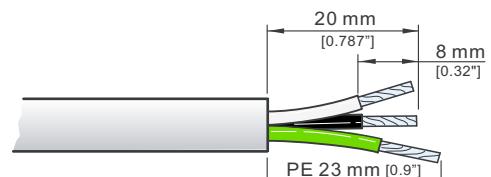


- C** Place the chuck over the cable.



- D** Prepare the cable as shown.

**i** Recommendation:  
Wire Pulling Lubricant - LUB-I/0.95  
from 3M™



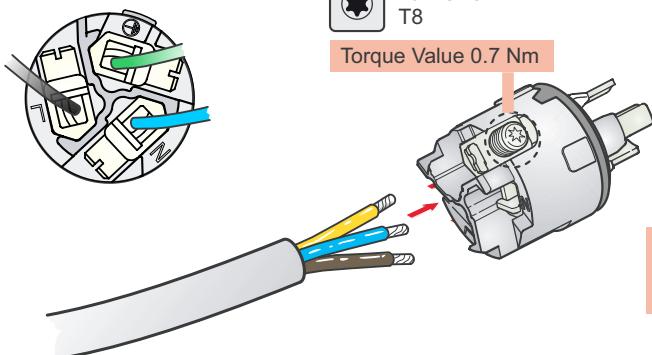
■ VDE  
EN 60320-1

■ UL 60320-1  
CAN/CSA-C22.2 No. 60320-1



## ASSEMBLY INSTRUCTION | powerCON® TRUE1® TOP - NAC3MX-W-TOP

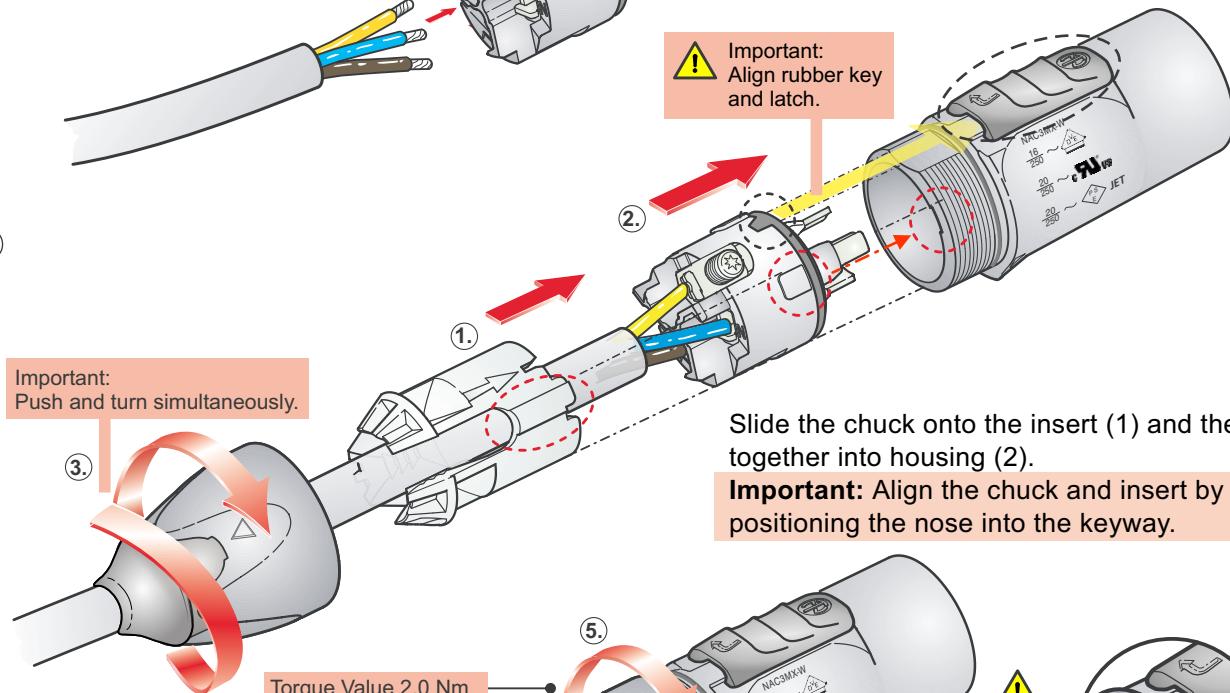
**E**



Insert the wires into the terminals and fasten the screw with Torx size T8.

Wiring	VDE	UL
L ⇒	brown	black
N ⇒	blue	white
↪ ⇒	green/yellow	green

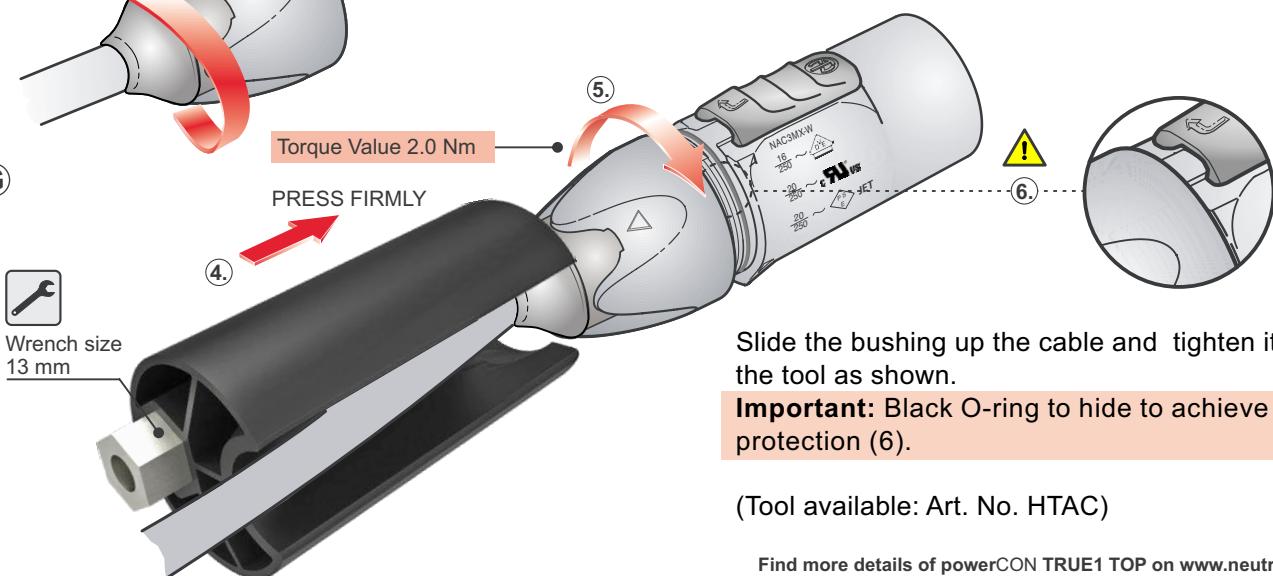
**F**



Slide the chuck onto the insert (1) and then both together into housing (2).

**Important:** Align the chuck and insert by positioning the nose into the keyway.

**G**



Slide the bushing up the cable and tighten it with the tool as shown.

**Important:** Black O-ring to hide to achieve IP protection (6).

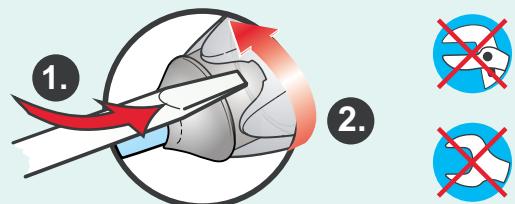
(Tool available: Art. No. HTAC)

Find more details of powerCON TRUE1 TOP on [www.neutrik.com](http://www.neutrik.com).

### C FOR DISASSEMBLY

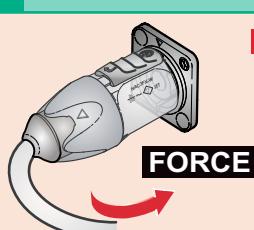
#### OPEN TWIST LOCK!

- ① Press with screw driver to unlock
- ② Turn bushing 360°.
- ③ Repeat step ①+② until bushing is unscrewed.



### D SAFETY INFORMATION

#### CAUTION



To ensure protection category, do not expose the connection to bending forces (e.g. do not attach loads to the cable, no free-dangling cable windings etc.).

#### SAFETY WARNING

For safety and certification reasons the connector must be replaced in case of any broken parts or excessive wear and tear.



Draft. Nr.: BDA 542 V3  
Update: 2023-02-22

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