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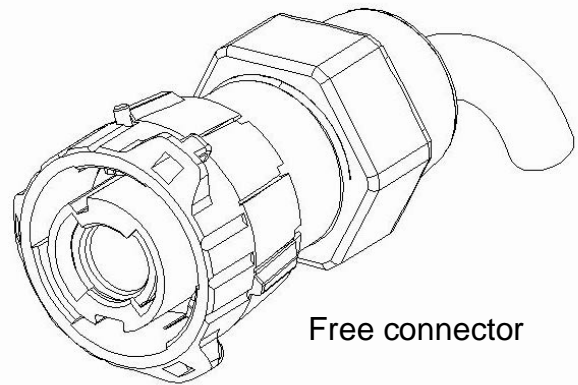
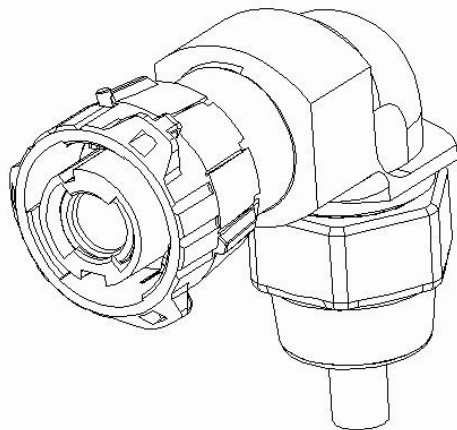
Assembly instruction

Connector Aqualok APD 1-way

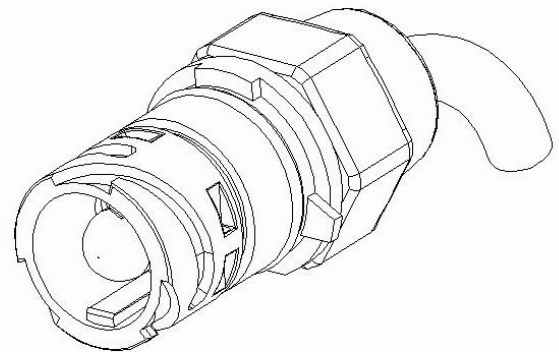
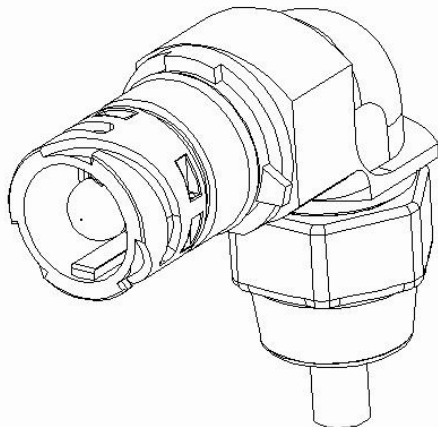
CAS25023E

Connector Aqualok APD 1-way

Free-connector with 90°-fitting



Free connector



Snap-in connector

Snap-in connector with 90°-fitting

Bearbeitet:
AS

Geprüft:
AS

Norm:
AS **Preliminary version**

Änd.-Stand:
XXXX W

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Assembly instruction

Connector Aqualok APD 1-way

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General Indications

Read the processing instruction completely and make yourself acquainted with the contents.

Only experienced personnel are admitted to do the processing.

Pay attention to the method of processing and the sequence as well as to the hints and specifications .Only the recommended parts guarantee a perfect functioning of the assembly unit.

The parts, subassemblies and auxiliary tools serve exclusively for the assembly and disassembly of a connector.

Only parts, assembly units and auxiliary tools from ITT Cannon are allowed to be used for the processing.

In case the parts, assembly units and auxiliary tools are used inappropriately, negligently and abusively the guarantee of the manufacturer expires.

The manufacturer will also not assume liability for personal injury and property damages caused by such acting.

Changes at parts, assembly units and auxiliary tools as well as deviating processing are subjected to a written approval.

The manufacturer reserves the right for changes without prior notice.

For a clearer understanding: "to the right" means as seen from the top you have to turn clockwise, "to the left" means as seen from the top you have to turn counter-clockwise.

Scrap parts have to be separated for recycling.

Bearbeitet:
AS

Geprüft:
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1. Piece part overview

In delivery condition

Because of being DIN A3rformat see separate document. Piece part overview.ppt

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Norm:
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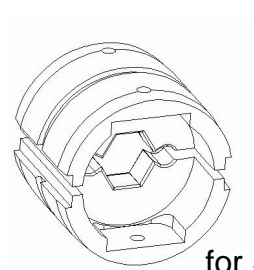
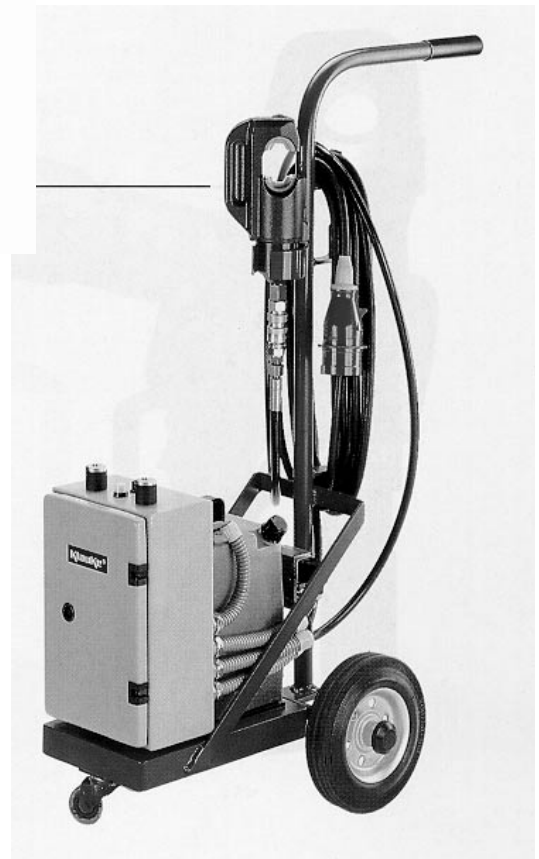
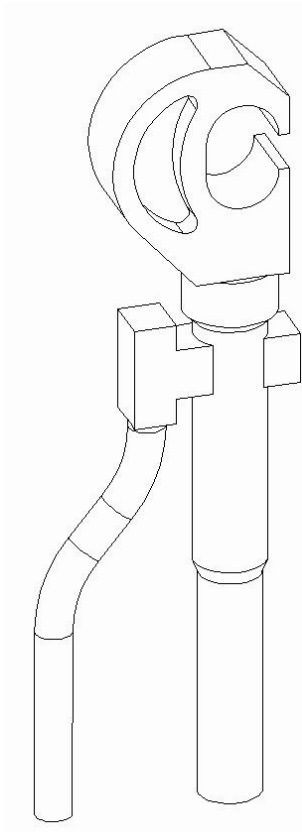
CAS25023E

2. Crimptool

Hydraulic Handpresstool

description: HK-120

ITT Cannon order.Nr.: 121 586-5077



Crimp-insert set

for SW 11,35 / 16, 25, 35, 50mm²

description: CT121586-5160

ITT Cannon order.Nr.: 121 586-5160

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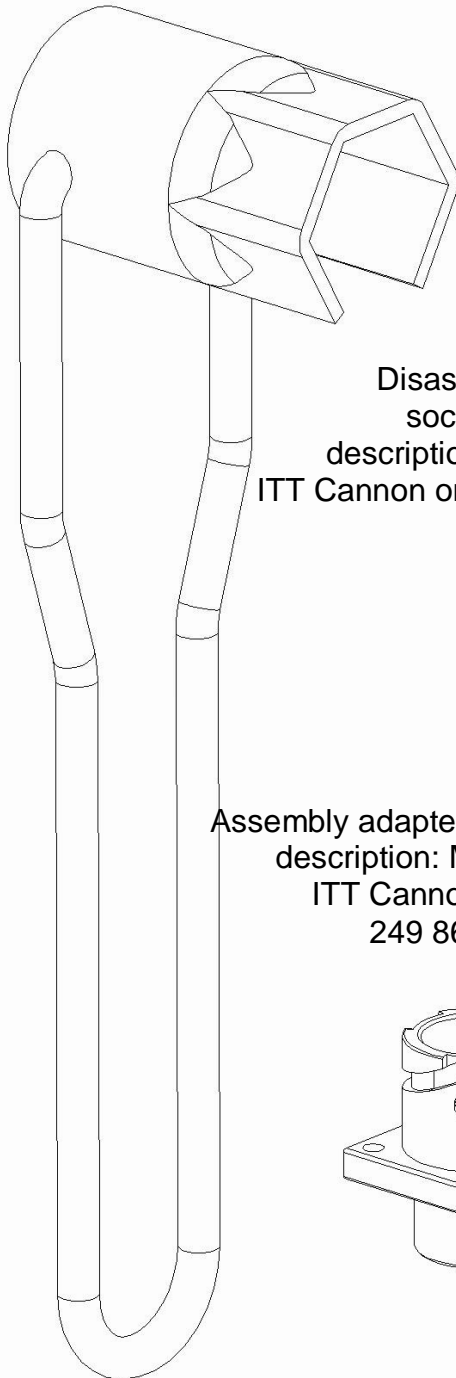
Connector Aqualok APD 1-way

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3. Hilfswerkzeuge

Wrench for APD-closing nut
description: SSG27G

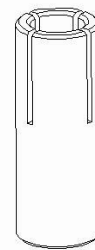
ITT Cannon order.Nr.: 980 8672-005



Disassembly tool for
pin contacts

description: CET-APD-#0P

ITT Cannon order.Nr.: 121 586-5192



Disassembly tool for
socket contacts

description: CET-APD-#0S

ITT Cannon order.Nr.: 121 586-5193



Assembly adapter for Snap-in connector
description: MA-APD-1/2-P

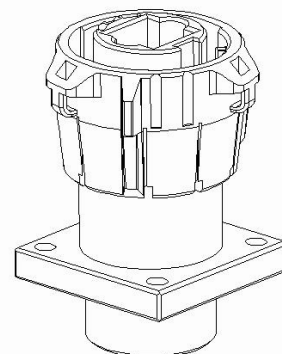
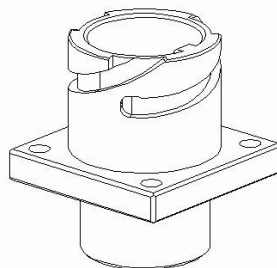
ITT Cannon order.Nr.: 248 8653-063

Spare part: coupling nut

ITT Cannon order.Nr.: 217 8516-000

Assembly adapter for free connector
description: MA-APD-1/2-R

ITT Cannon order.Nr.: 249 8619-010



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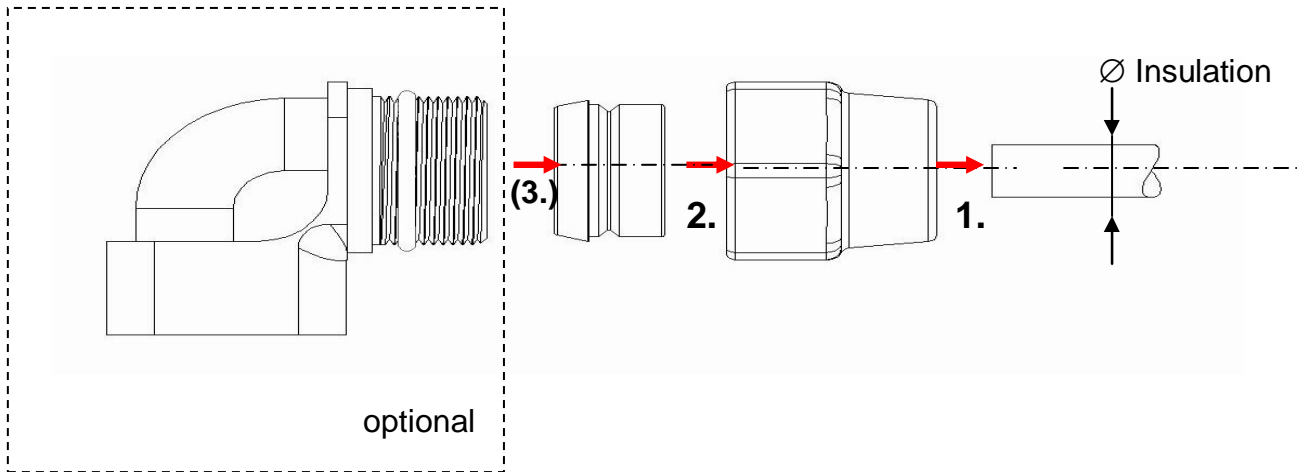
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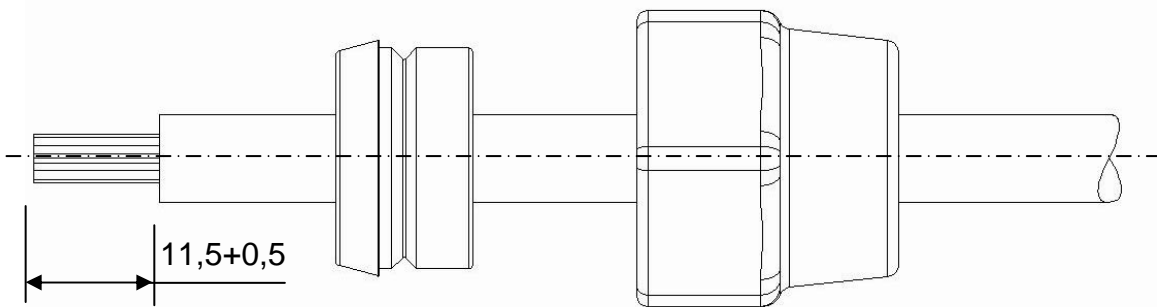
4. Preparation of wire

In piece part overview (see page 4) take the sealing part acc. the insulation diameter of the specified wiren.

Closing nut, ITT Cannon order.Nr. 217 8516-010, sealing part and if wanted, the 90°-fitting, in shown order and orientation in sufficient length onto the wire to prevent damages on the sealing part while doing the removal of insulation and crimping.



Remove the insulation in a length of $11,5+0,5$ mm.
(shown on a





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Assembly instruction

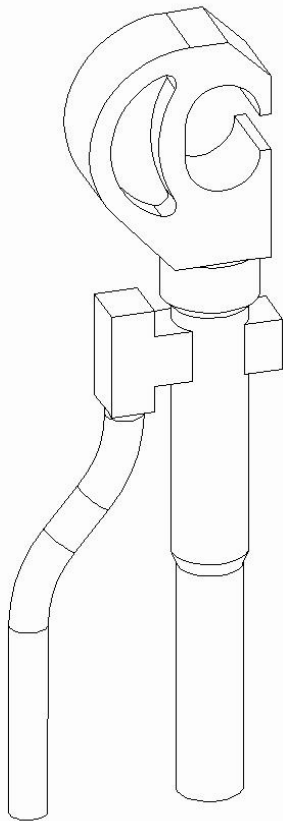
Connector Aqualok APD 1-way

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5. Crimping of contacts

Exemplarily shown on the pin-contact

To crimp the contacts there are two tools.



Hydraulic handpresstool
ITT Cannon order. Nr.:121 586-5077



Elektro-Hydraulic Presstool ITT
Cannon order.Nr.:121 586-5075

Set-up crimp insert set, ITT Cannon order.Nr.: 121 586-5160 in Presstool with reference to presstool instruction.

Choose pin- or socket contact acc. Wire section (AWG) see page 4.

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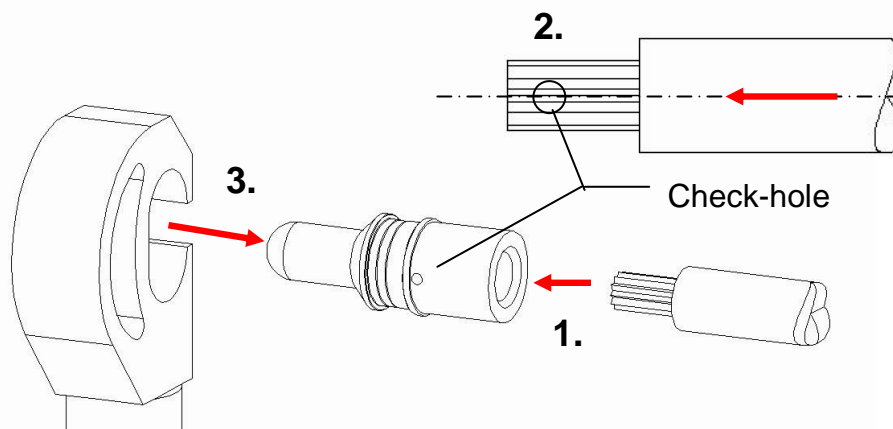
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Assembly instruction

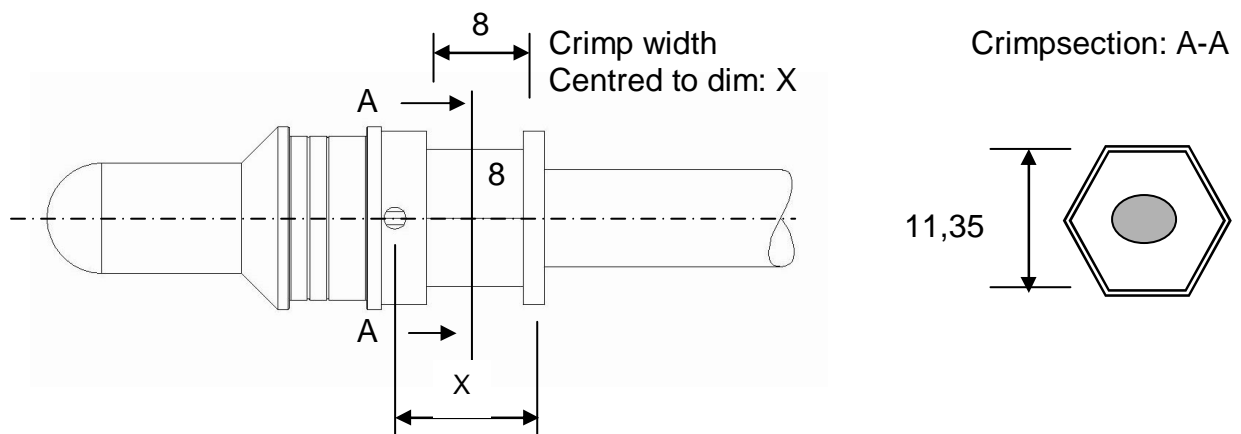
Connector Aqualok APD 1-way

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1. push de-insulated side of prepared wire (see page 7) into wire hole of contact.
2. move wire in contact until the wire is visible in the check-hole and fills the hole completely.
3. move contact with wire in reference of the wire insertion depth in Presstool against the Stopp of the crimp-insert.



Run presstool with reference of the instruction of press tool.
 Take the crimped connector out of the crimping tool.
 The crimped contacts has to fulfil following specification:



The single strands of the wire have to fill the hole of the check-hole completely!
 All strains have to be in the crimp!

Bearbeitet:
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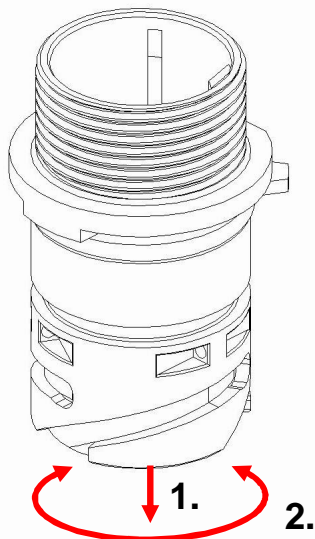
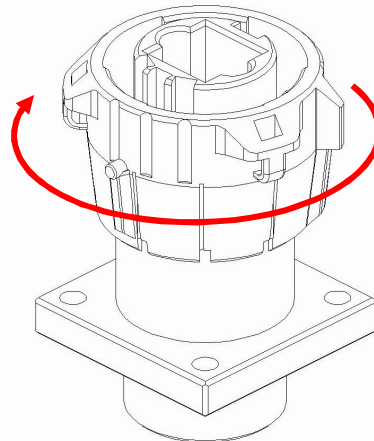


Assembly instruction
Connector Aqualok APD 1-way

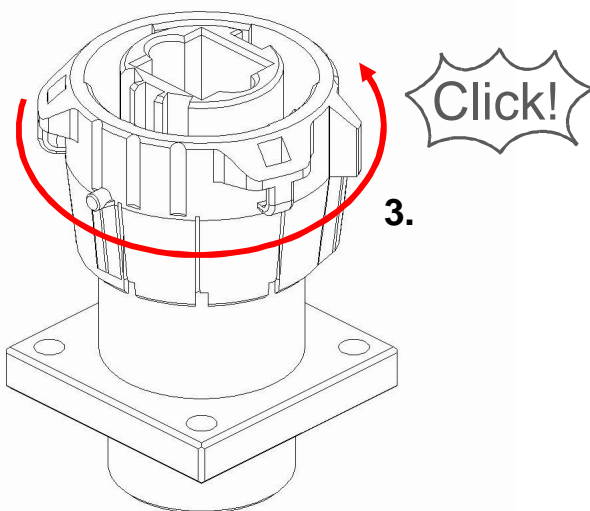
CAS25023E

6. Assembly of Snap-in connector

Assemblyadapter,
ITT Cannon order.Nr.: 248 8653-063
fixed on workdesk or appropriate.
Turn coupling nut,
ITT Cannon order.Nr.: 217 8516-000 of
assemblyadapter clockwise inthe fixed
end position.



1. Insulator, ITT Cannon order.Nr.: 249 8619-005 or. -006 on assembly-adapter.
2. Turn insulator until the keying rips lock in the counter rips of the assembly adapter.
3. Turn coupling nut of the assembly adapter anti-clockwise until the final locking position.



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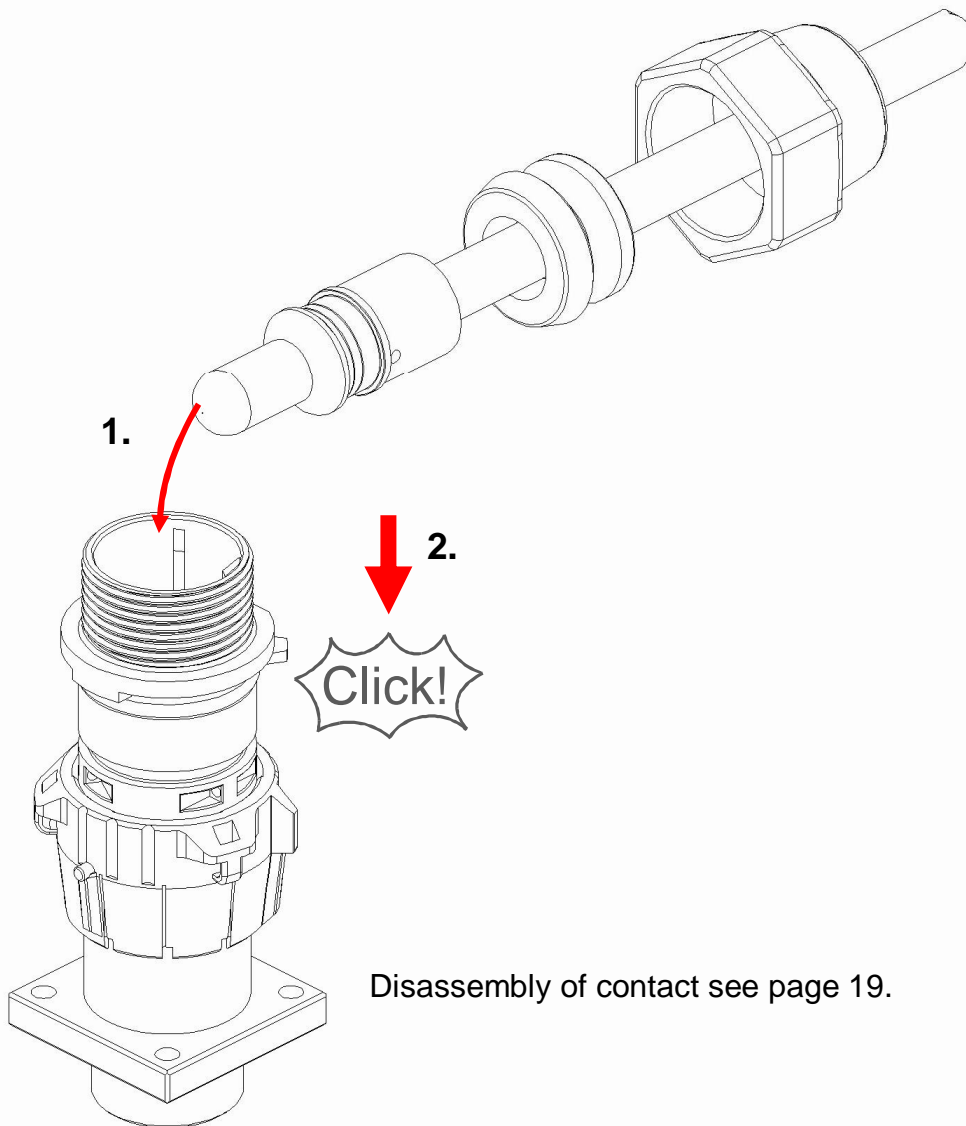
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Assembly instruction

Connector Aqualok APD 1-way

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1. Push pin-contact into the contact chamber of the insulator.
2. Push on the wire until there is an audible and tactile click.
(shown on the straight wire outlet)



The contact can not be dragged out by hand if everything is right!

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Geprüft:
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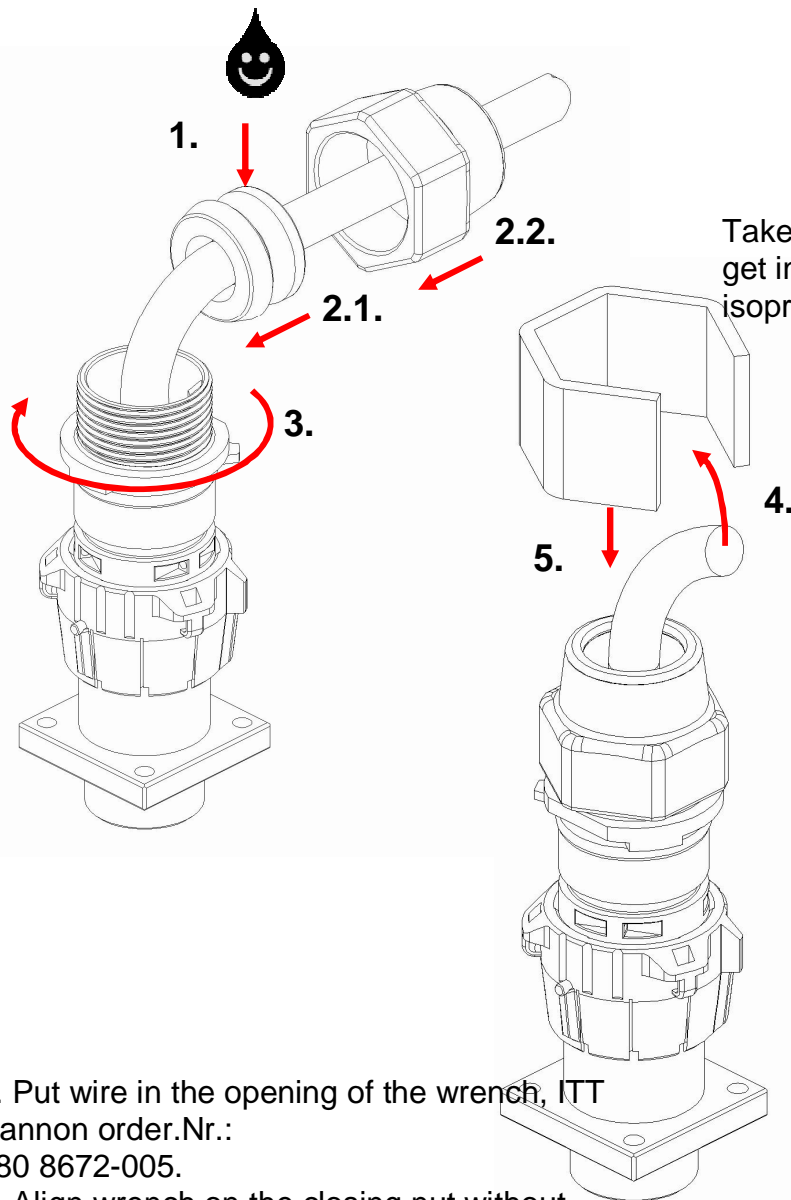
Assembly instruction

Connector Aqualok APD 1-way

CAS25023E

At applications where the 90°-fitting ITT Cannon order.:Nr. 217 8516-010 will be used follow the instruction on page18.

1. Apply with a brush apply a dot of Isopropylalcohol, only at the shown cylindrical area of the sealing insert.
2. Move first the sealing part, then the closing nut onto the insulator.
3. Screw the closing nut by hand onto the insulator.



Take care that the contacts do not get in contact with the isopropylalcohol!

4. Put wire in the opening of the wrench, ITT Cannon order.Nr.: 980 8672-005.
5. Align wrench on the closing nut without damaging the wire.

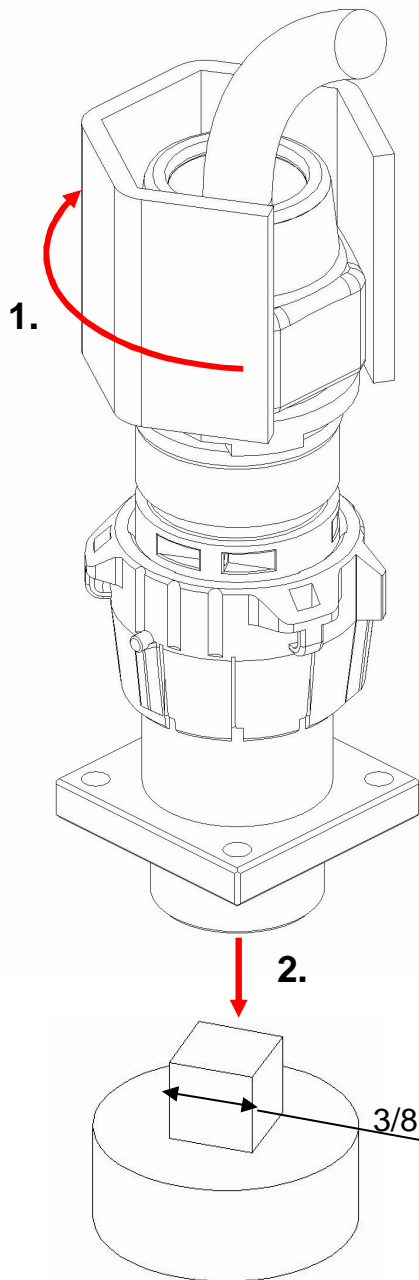
Bearbeitet:
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Geprüft:
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Norm:
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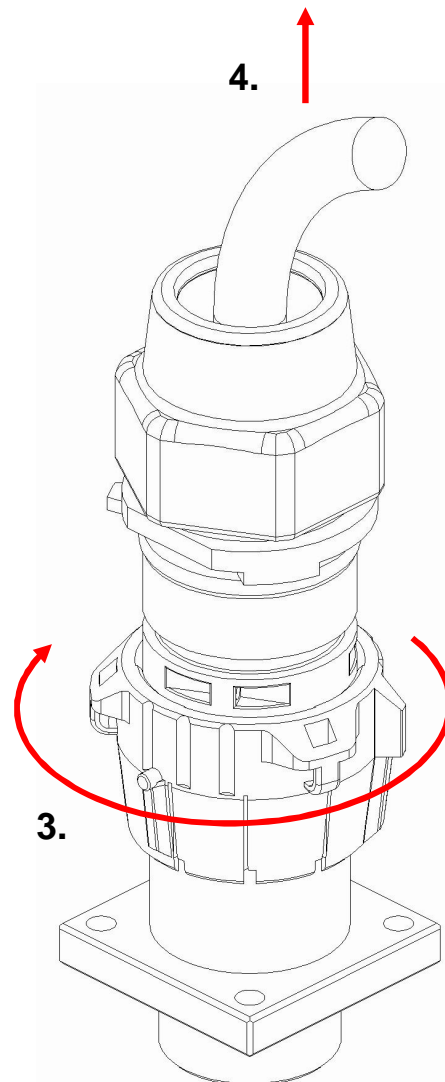
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In order to guarantee the function of the wrench there has to be a minimum distance of 90 mm from the end of the contact to the beginning of bending of the wire.

1. Tighten the closing nut by using the wrench with a torque of $2,5 \pm 0,5$ Nm.
2. There is a 3/8"-quadratic opening on the bottom side of the adaptor which can be used to install a measurement device to check the torque.



3. In order to release the insulator, turn coupling nut to the right until it locks.
4. Remove the completed connector.



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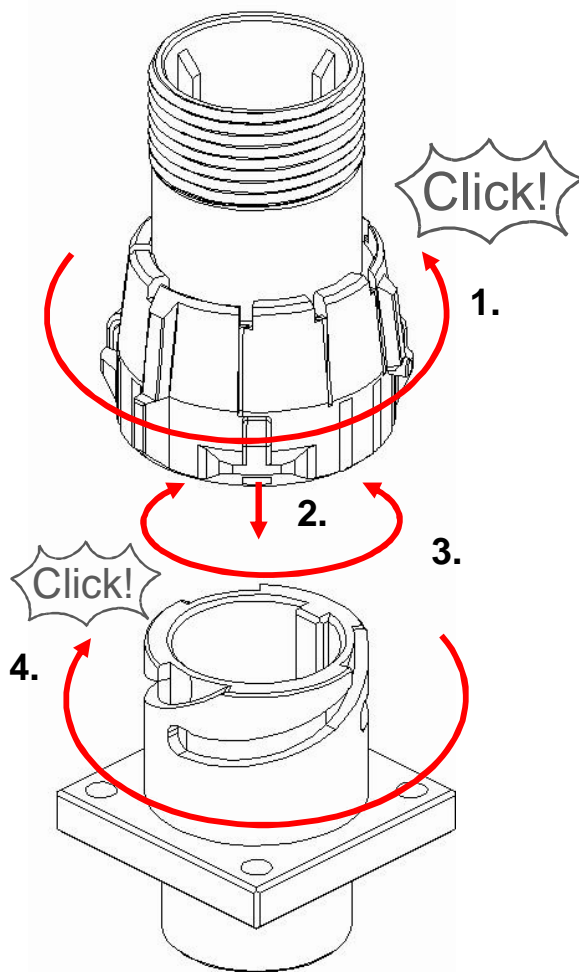
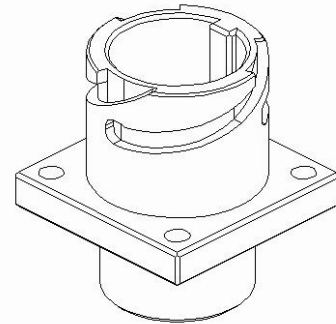
Assembly instruction

Connector Aqualok APD 1-way

CAS25023E

7. Assembly of the free connector

Assembly adaptor,
ITT Cannon order.nr.: 249 8619-010
To be mounted onto a work bench



1. Turn the coupling nut of the cylinder housing, ITT Cannon order.nr.: 121 583-0013 or -0042 to the left until it locks in the final position.
2. Apply cylinder housing onto the assembly adaptor.
3. Turn cylinder housing while keeping the bayonet locking position until the cylinder housing catches the keying and slides into the assembly adaptor

Bearbeitet:
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Geprüft:
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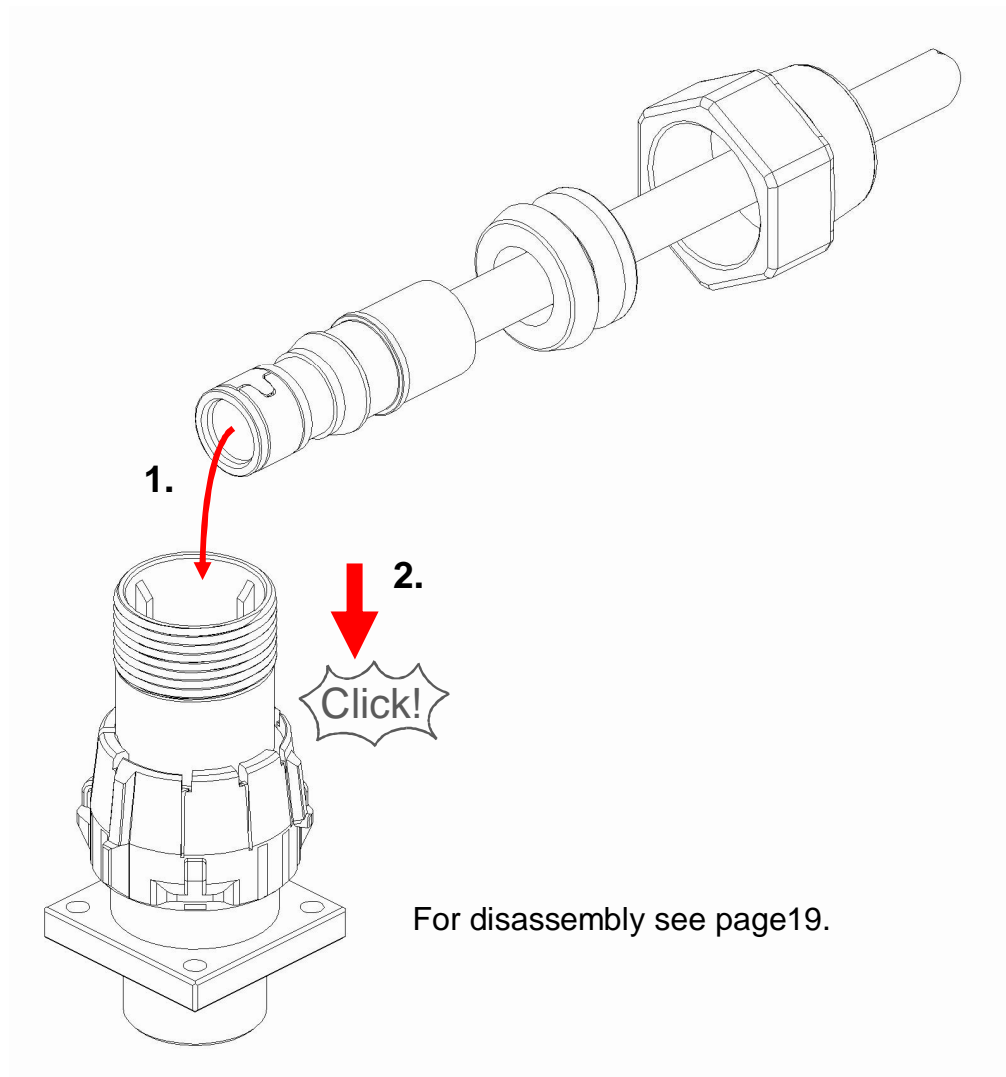
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Assembly instruction

Connector Aqualok APD 1-way

CAS25023E

1. Insert the socket contact into the contact chamber of the cylinder housing.
2. Gently push with the wire until there is an audible and tactile locking of the contact.



The mounted (locked contact) is not supposed to be pulled out by hand!

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Geprüft:
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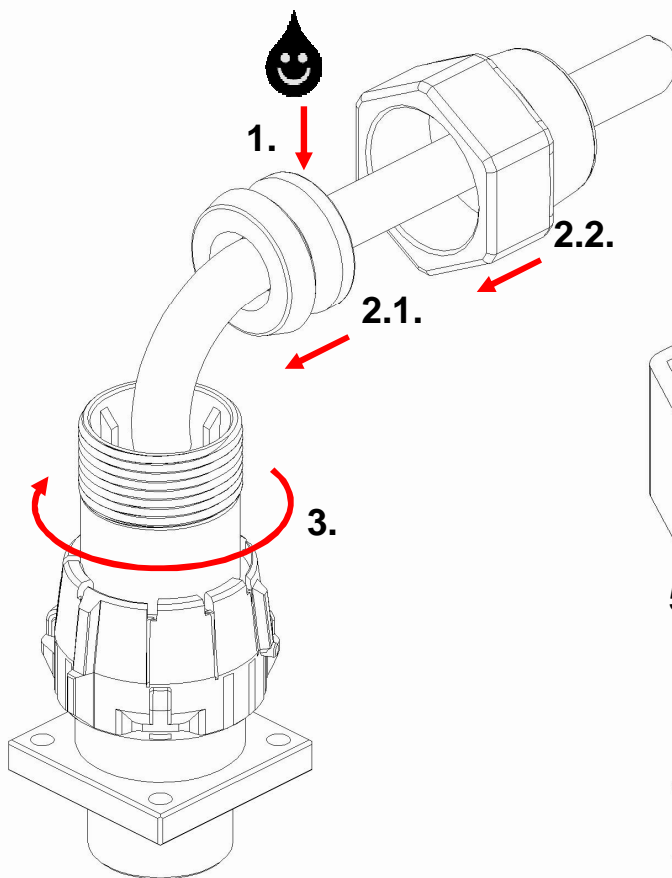
Assembly instruction

Connector Aqualok APD 1-way

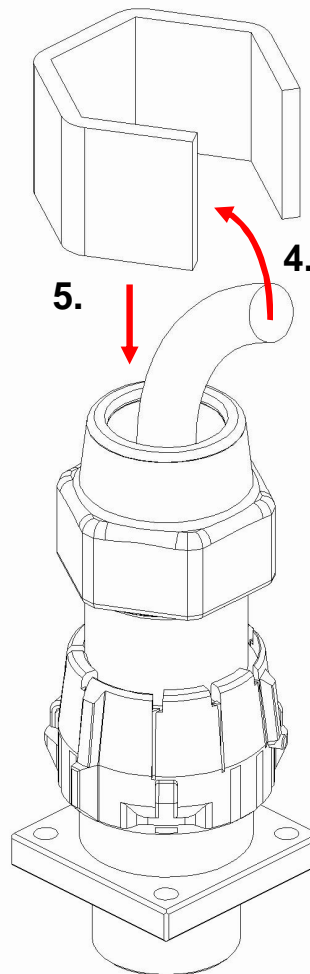
CAS25023E

At applications where the 90°-fitting ITT Cannon order.:Nr. 217 8516-010 will be used follow the instruction on page19.

1. Apply with a brush apply a dot of Isopropylalcohol, only at the shown cylindrical area of the sealing insert.
2. Move first the sealing part, then the closing nut onto the insulator.
3. Screw the closing nut by hand onto the cylinder housing.



Take care that the contacts do not get in contact with the



4. Put wire in the opening of the wrench, ITT Cannon order.Nr.: 980 8672-005.
5. Align wrench on the closing nut without damaging the wire.

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Geprüft:
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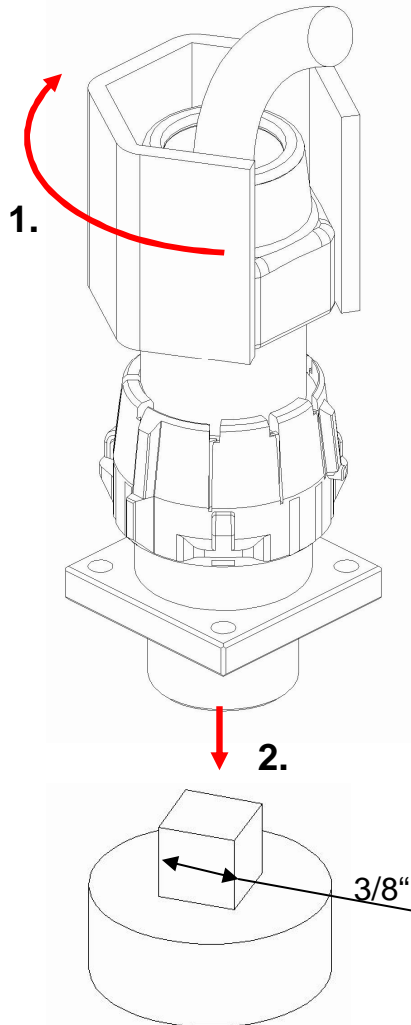


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Assembly instruction

Connector Aqualok APD 1-way

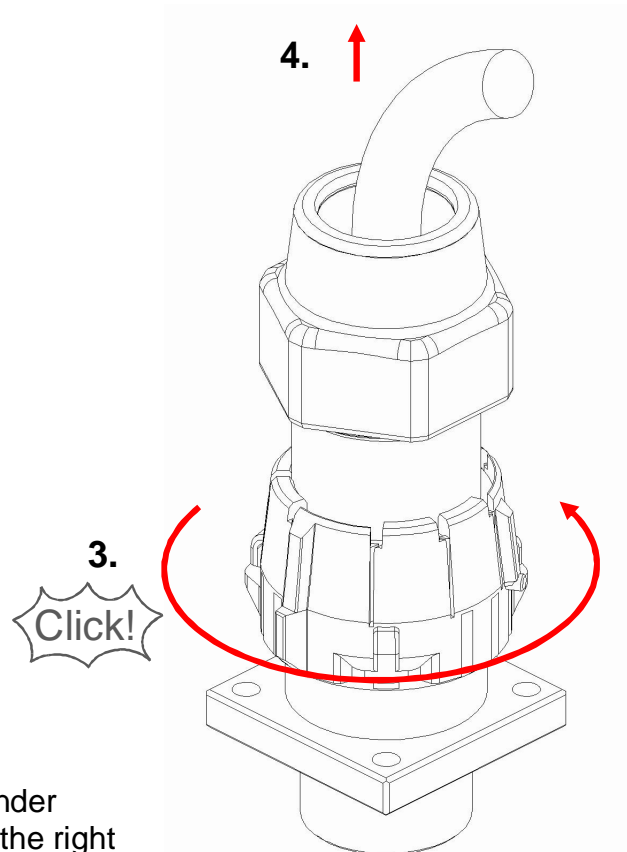
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In order to guarantee the function of the wrench there has to be a minimum distance of 90 mm from the end of the wire to the beginning of bending of the wire.

1. Tighten the closing nut by using the wrench with a torque of $2,5 \pm 0,5$ Nm.

2. There is a 3/8"-quadratic opening on the bottom side of the adaptor which can be used to install a measurement device to check the torque.



3. In order to release the cylinder housing, turn coupling nut to the right until it locks.

4. Remove the completed connector.

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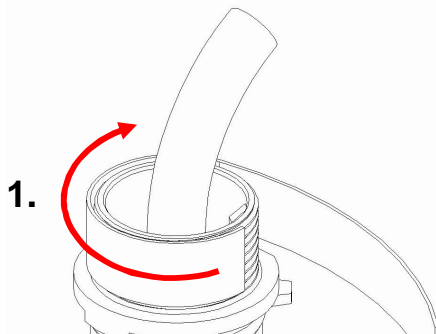
Connector Aqualok APD 1-way

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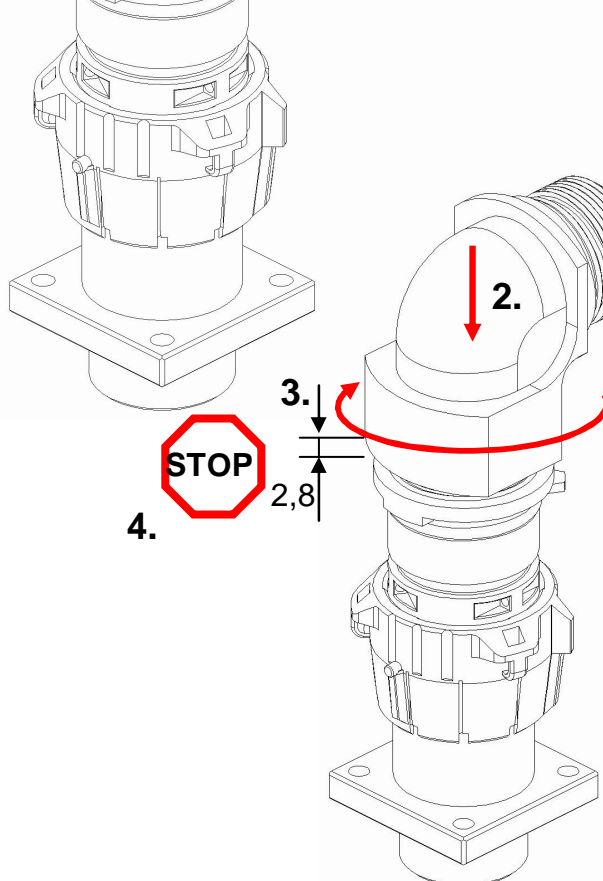
8. Assembly of the 90°-fitting

8.1. Assembly of the 90°-fitting on the Snap-in connector

Prepare piece parts as shown on page 10 and 11.



1. Apply PTFE-foil (see piece part overview on page 4) completely, with light tension, in direction clockwise around the thread of the insulator housing.



2. Apply 90°-fitting, ITT Cannon order.nr.: 980-8672-004 on the with PTFE-foil covered thread of the insulator housing.

3. Turn 90°-fitting while feeding the wire (pushing the wire).

4. Stop turning when reaching a distance of approximately 2.8 mm between lower edge of the 90°-fitting and upper end of the insulator housing.

Further proceeding please follow the instruction on page 12. Instead of using the insulator thread use the thread of the 90°-fitting.

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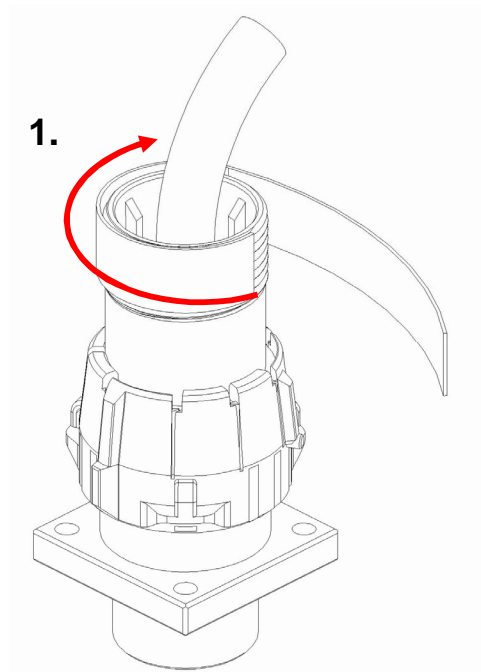
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Connector Aqualok APD 1-way

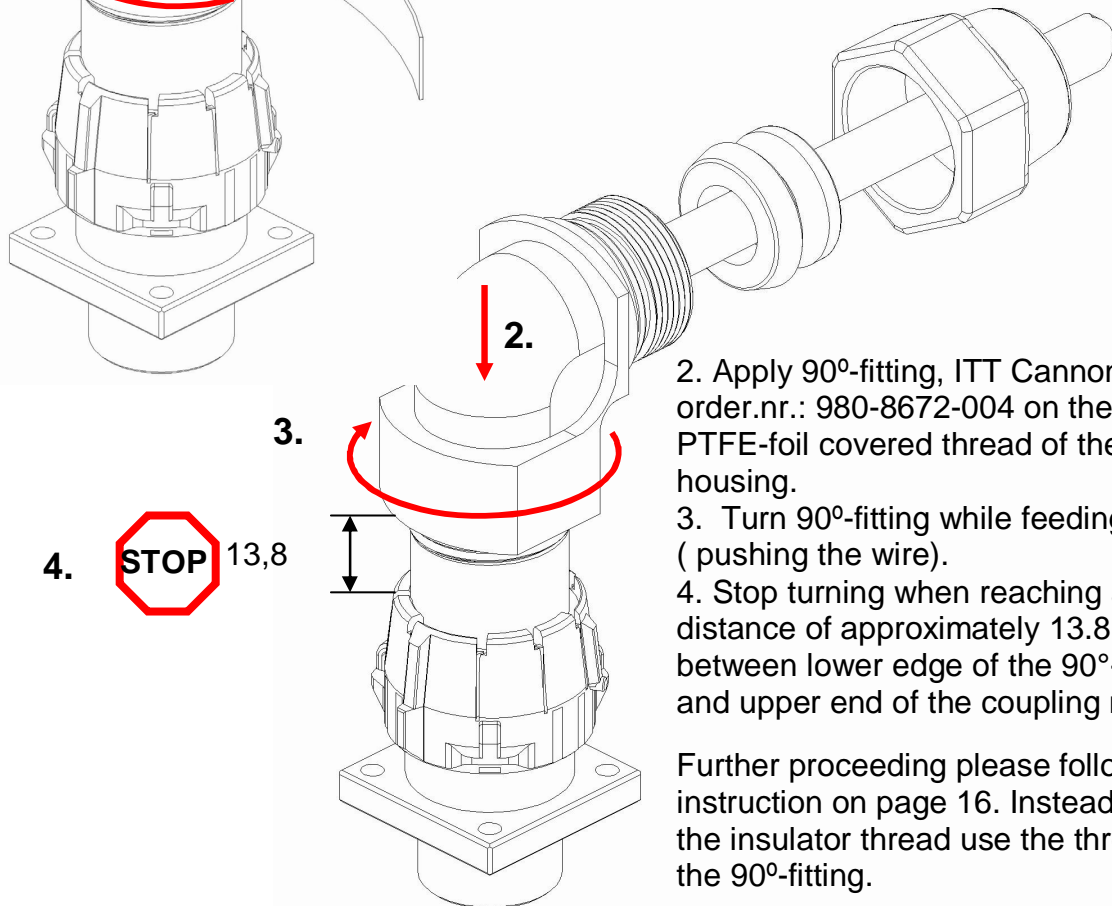
CAS25023E

8.2. Assembly of the 90°-fitting on free connctor



Prepare piece parts as shown on page 14 and 15.

1. Apply PTFE-foil (see piece part overview on page 4) completely, with light tension, in direction clockwise around the thread of the insulator housing.



2. Apply 90°-fitting, ITT Cannon order.nr.: 980-8672-004 on the with PTFE-foil covered thread of the cylinder housing.
3. Turn 90°-fitting while feeding the wire (pushing the wire).
4. Stop turning when reaching a distance of approximately 13.8 mm between lower edge of the 90°-fitting and upper end of the coupling nut.

Further proceeding please follow the instruction on page 16. Instead of using the insulator thread use the thread of the 90°-fitting.

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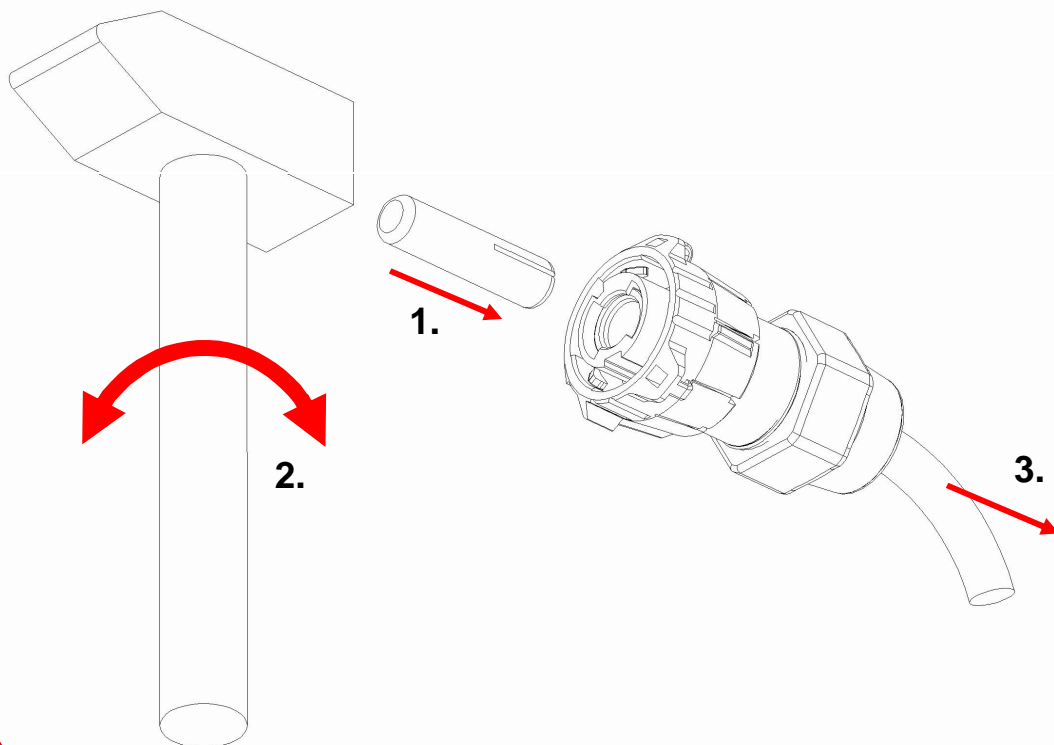
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9. Disassembly of the contacts exemplarily shown on the free connector

Unscrew, if applied, 90°-fitting or. Closing nut and move them with the sealing part zusammen backwards on the wire.

To loosen the closing nut use only assembly-adaptor (für Snap-in connector see page 10, for free connector see page Blatt 14) and wrench, ITT Cannon order.nr.: 980 8672-005.

1. Insert from the mating side (contact interface) the exertions tool (for pin-contact, ITT Cannon order.nr.: 121 586-5192, for socket contact, ITT Cannon order.nr.: 121 586-5193) as shown on the to be disassembled contact until there is a stop. If In some cases the disassembly tool has to be turned to make it easier.
2. Hit with a hammer on the disassembly tool until the contact retention hooks will break.
3. Pull the contact out of the housing.



Housing with coupling nut are not to be used again after the disassembly of contacts!
Take new parts!

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Assembly instruction

Connector Aqualok APD 1-way

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