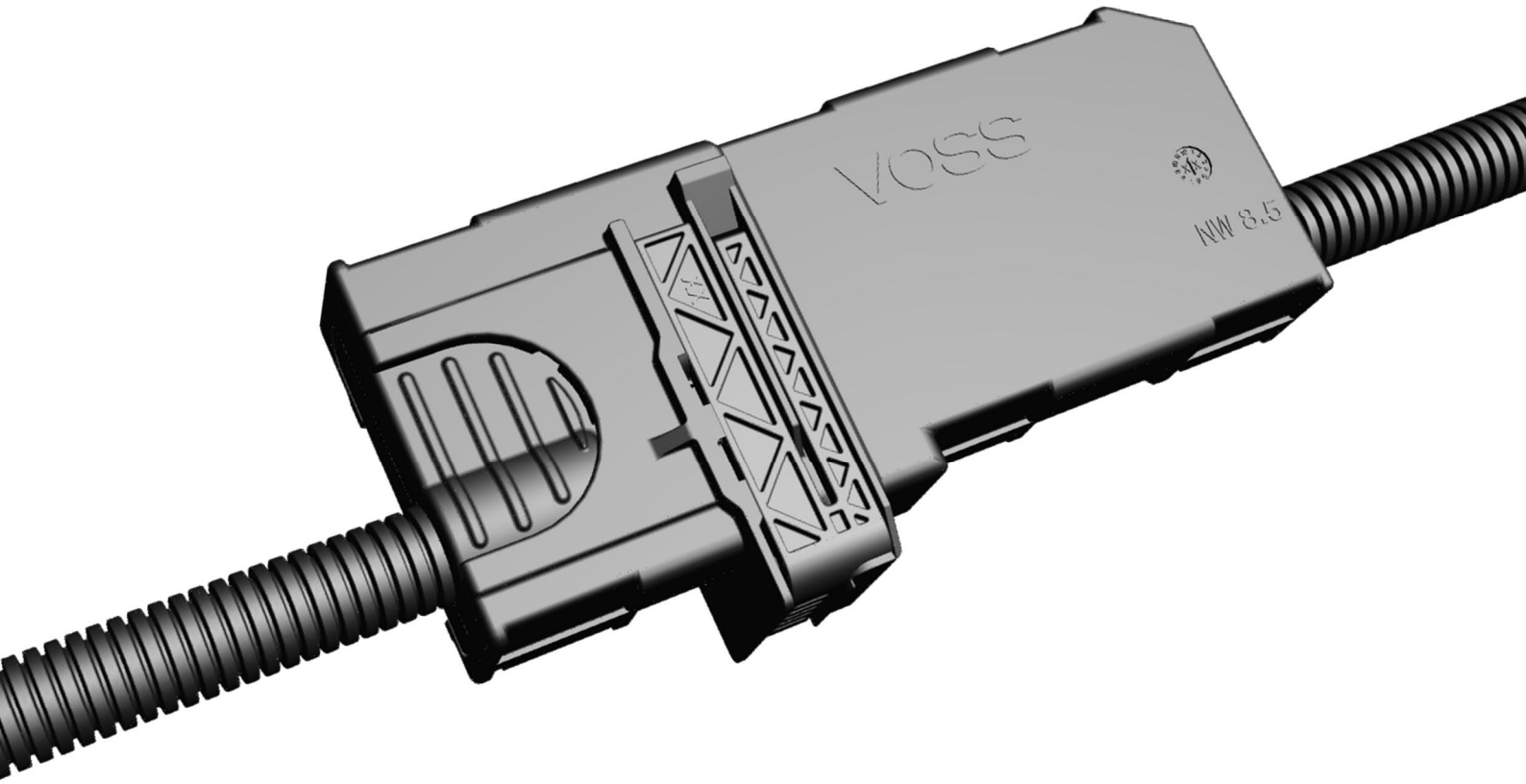
Assembly instructions
VOSS quick connect system 301 *EFSP2*

Electric-Fluidic Separation Point 2



Separation point for electrically heated SCR lines

A. Important notices

System properties

- The VOSS quick connect system 301 *EFSP2* is an Electric-Fluidic Separation Point for the connection of electrically heated AdBlue®/DEF lines in light vehicles.
- The AdBlue®/DEF line and the electrical connections are connected simultaneously in one assembly step.
- Only for Polyphthalamide (PPA) tube 4x1
- Poka Yoke design for a secure and proper connection
- Compatible with high temperature lines

Please observe before using the quick connect system

- The VOSS quick connect system 301 *EFSP2* is made for electrically heated SCR systems in light vehicles.
- The temperature range is -40 °C to +120 °C.
- The maximum operating pressure is 10 bar.

Please observe during assembly of the quick connect system

- The assembly of the quick connect system must be conducted by professional mechanics subject to these assembly instructions.
- Incorrectly assembled connections can result in leakage or failure of the system.
- The VOSS quick connect system 301 *EFSP2* may only be used with connections and tubes described in chapter B (“Components”).
- Before connecting both sides, components must be checked. They have to be clean and must not show any signs of damage.

B. Components

VOSS quick connect system 301 *EFSP2*

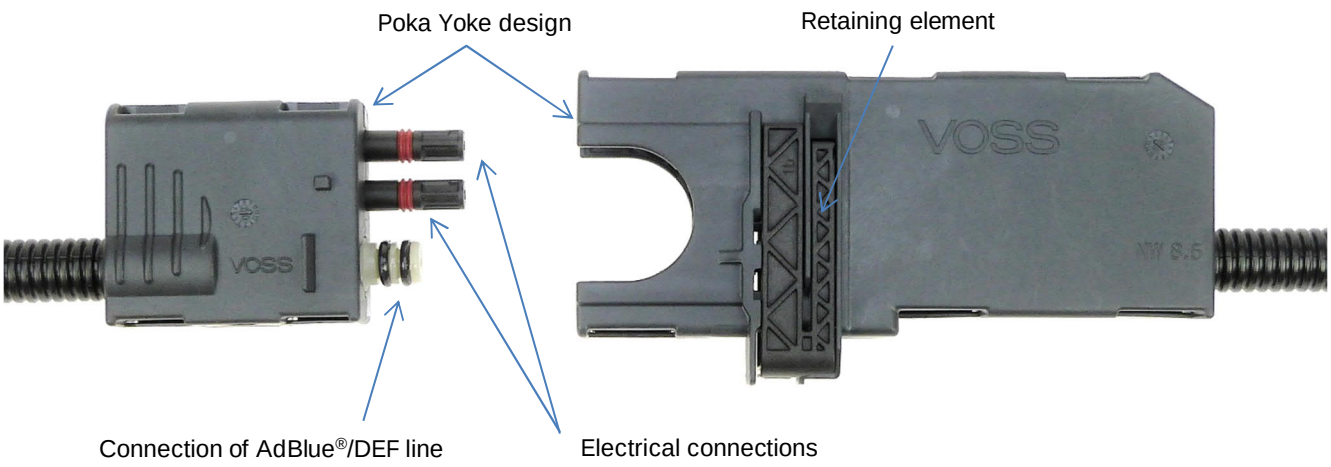


Fig. 1: Components of VOSS quick connect system 301 *EFSP2*

As-delivered condition VOSS quick connect system 301 *EFSP2*

Fig. 2: VOSS quick connect system 301 *EFSP2* with yellow protective caps (as-delivered condition)

C. Assembly instructions

Use of arrow symbols in pictures/figures:

Indicates points described in the text that require special attention.

Indicates automatic movements and their direction from components triggered by manual actions.

Indicates necessary manual actions and their direction.

Indicates operations to be avoided.

1. Assembly

Before connecting both sides, components must be checked. They have to be clean and must not show any signs of damage.

Step 1

Initial situation: plug and coupling side separated

Yellow protective caps must be removed before assembly.

Fig. 3: Separated plug and coupling side of QC system 301 *EFSP2*

Only one assembly position possible due to Poka Yoke design

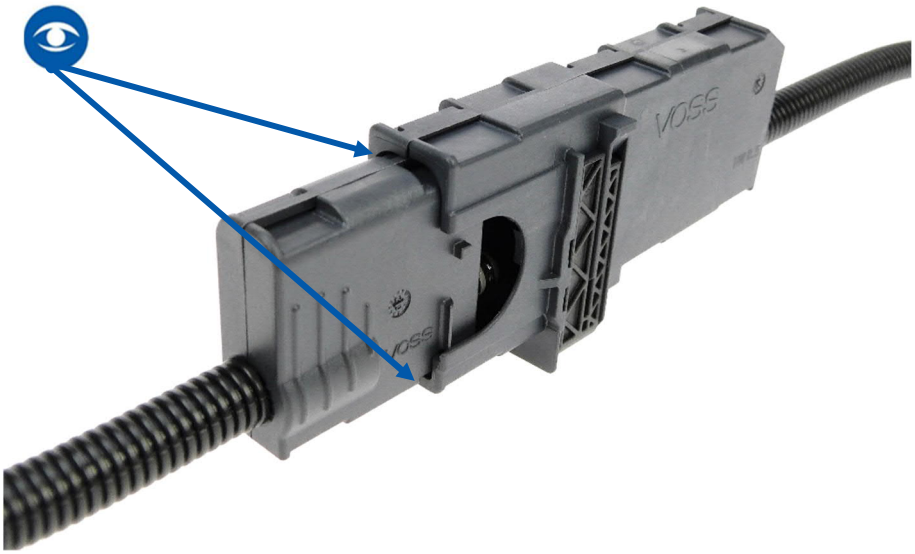


Fig. 4: Poka Yoke design of QC system 301 *EFSP2*

Step 2

Insert the plug side straight into the opening of the coupling side and connect both sides.

- Retaining element moves upwards and is spread apart in the process.

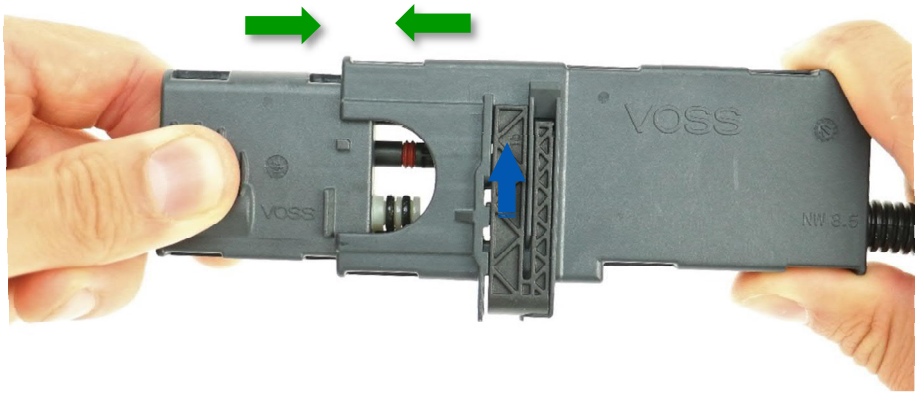


Fig. 5: Merged plug and coupling side of QC system 301 *EFSP2*

In case of incomplete insertion (end position not reached), visual identification possible:

- Retaining element is still spread in the upper position and not engaged again.
- Plug side is not plugged flush into the coupling side.
- QC system must be plugged together until it engages (end position) (see step 3).

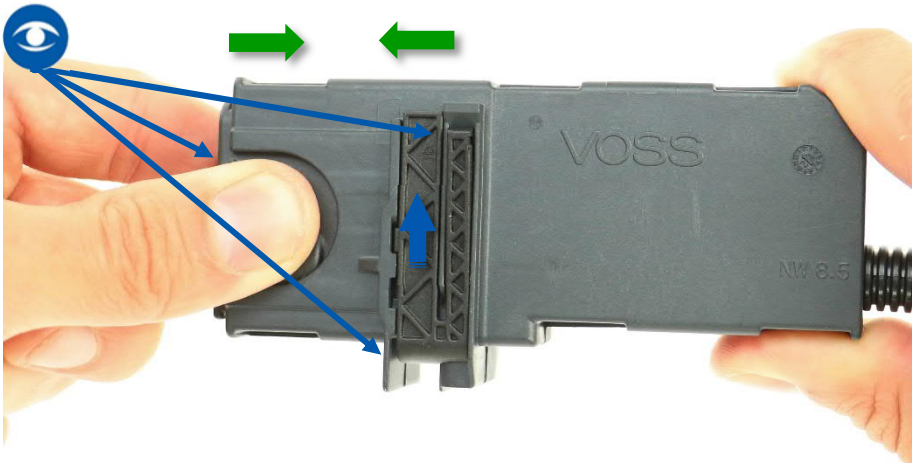


Fig. 6: Incomplete assembly step of QC system 301 *EFSP2*

In case of incomplete insertion (end position not reached), visual identification possible:

- Retaining element is still spread in the upper position and not engaged again.
- Plug side is not plugged flush into the coupling side.
- QC system must be plugged together until it engages (end position) (see step 3).

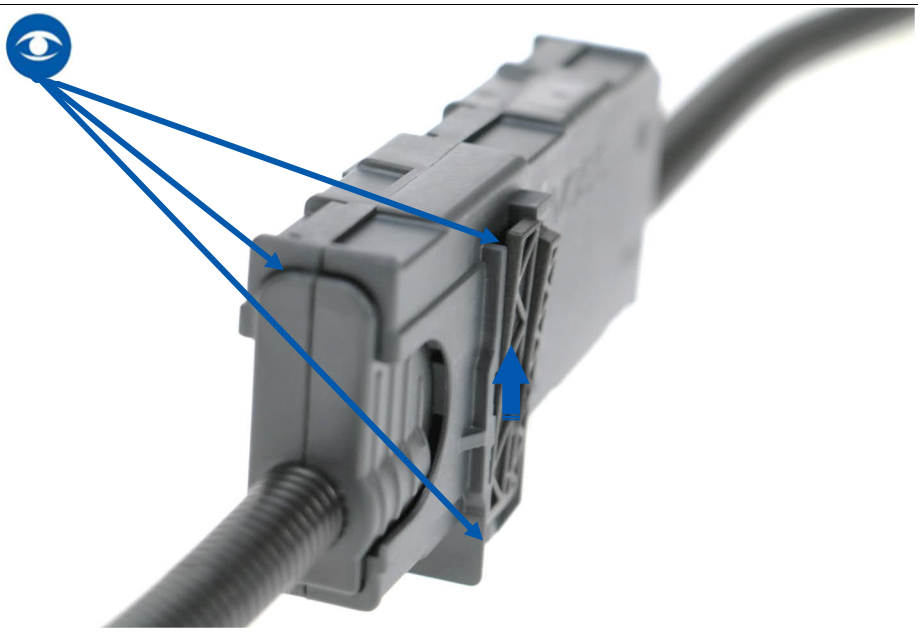


Fig. 7: Incomplete assembly step of QC system 301 *EFSP2* – side view

Step 3

Connect plug and coupling side completely together until they engage (end position). Acoustic and visual identification possible:

- Retaining element audibly and visibly engages and jumps back down to initial position.
- Plug side is plugged flush into the coupling side.
- Fluidic and electrical connections are now simultaneously established.

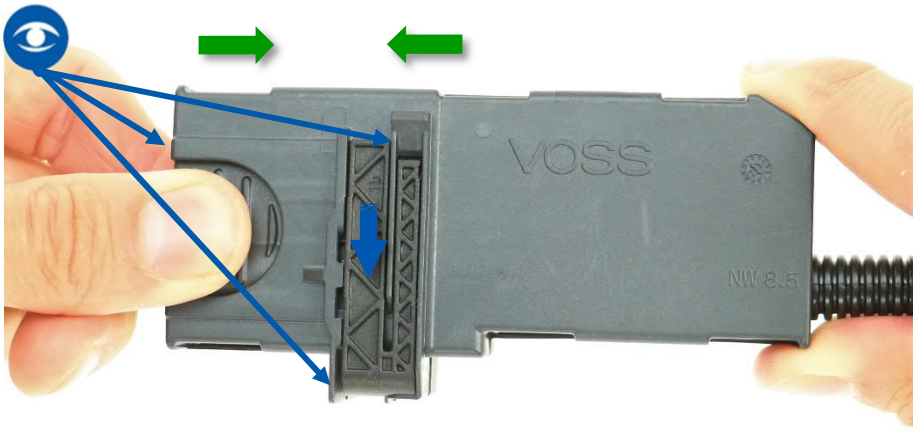


Fig. 8: Engaged QC system 301*EFSP2*

Connect plug and coupling side completely together until they engage (end position). Acoustic and visual identification possible:

- Retaining element audibly and visibly engages and jumps back down to initial position.
- Plug side is plugged flush into the coupling side.
- Fluidic and electrical connections are now simultaneously established.

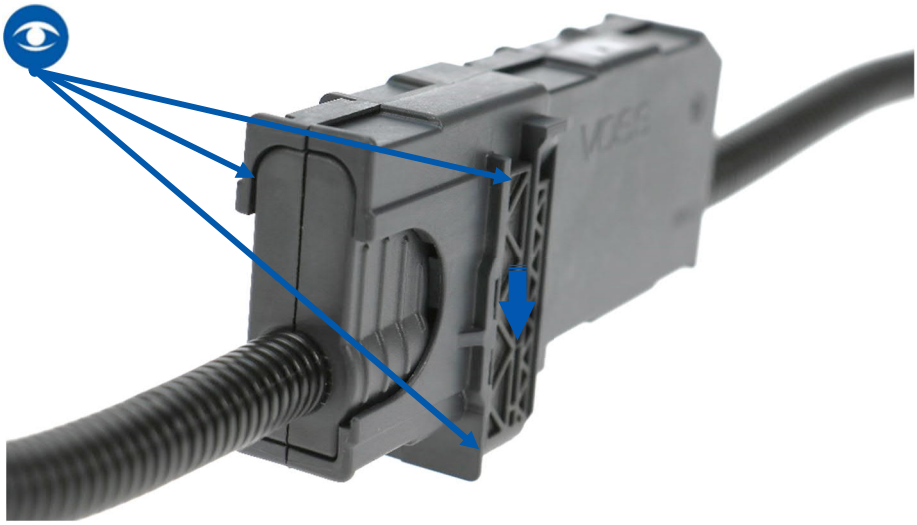


Fig. 9: Engaged QC system 301*EFSP2* – sdie view

Step 4

Execute counter-pull test: try to pull apart plug and coupling side

- When correctly assembled, the sides cannot be pulled apart.

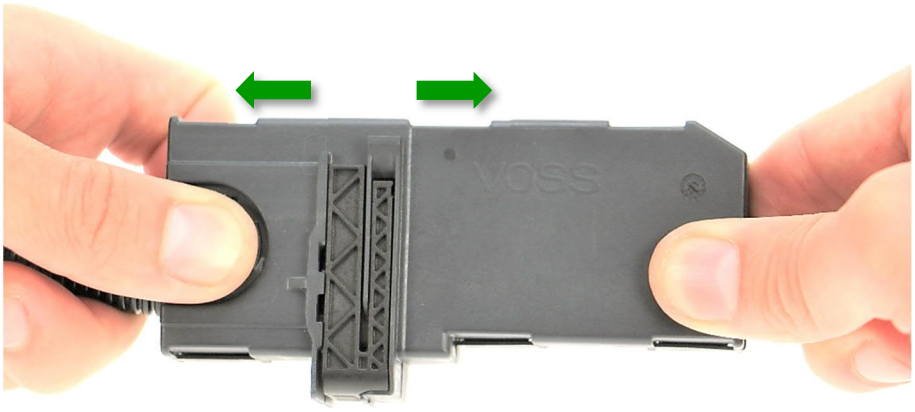


Fig. 10: Counter-pull test QC system 301*EFSP2*

Step 5

Final situation: Completely assembled and locked QC system

Fig. 11: Completely assembled and locked QC system 301*EFSP2*

2. Disassembly

Before disconnecting, the line must be free of pressure and the area of the retaining element must be free of dirt.

Step 1

Initial situation: The plug side is inserted flush into the coupling side.

Fig. 12: Initial situation disassembly QC system 301 *EFSP2*

Step 2

Use the fingertip to correctly actuate the retaining element (push it in as far as it will go).

Do not use the flat finger, as this will prevent the retaining element from being actuated correctly.

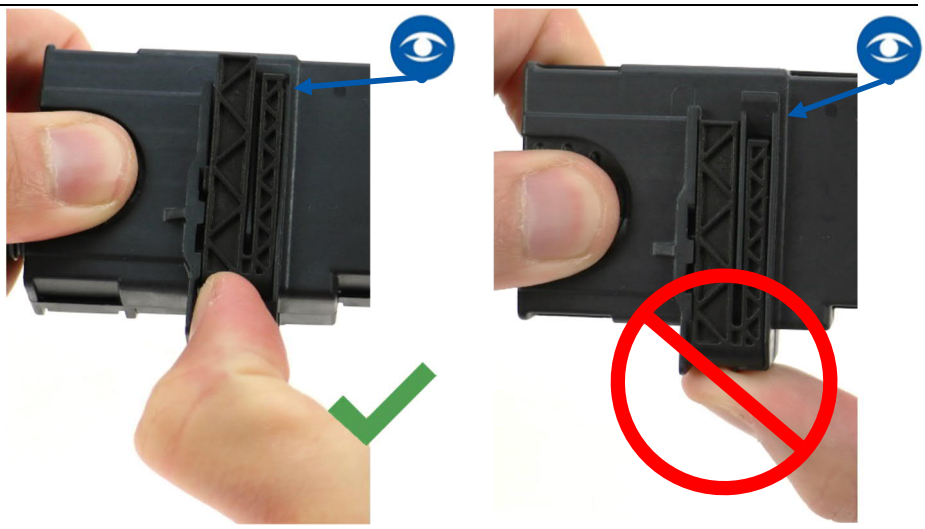


Fig. 13: Correct actuating of the retaining element with fingertip

Actuate the retaining element with the fingertip (press in as far as it will go) and hold it down, …

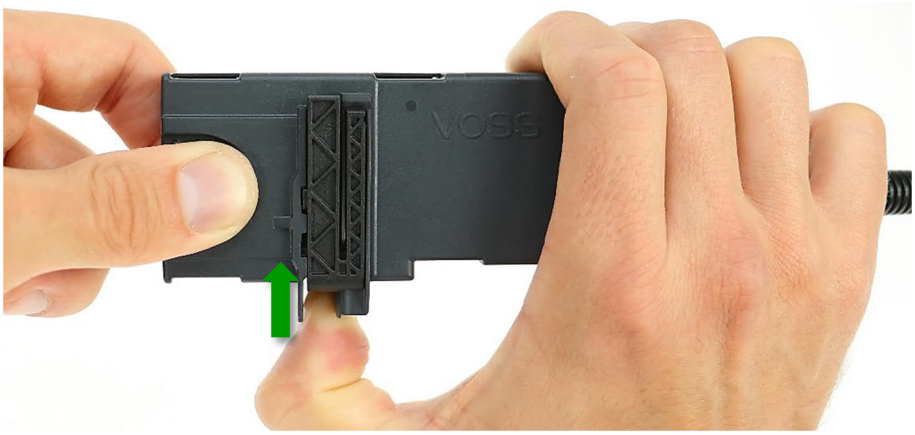


Fig. 14: Pressing in the retaining element of QC system 301 *EFSP2*

Step 3

… while doing so, pull the plug and coupling side apart …

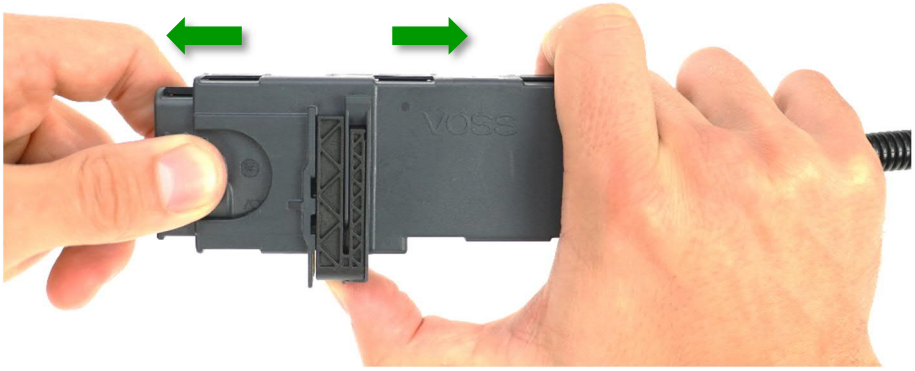


Fig. 15: Pulling apart plug and coupling side of QC system 301 *EFSP2*

… until the two sides are completely separated.

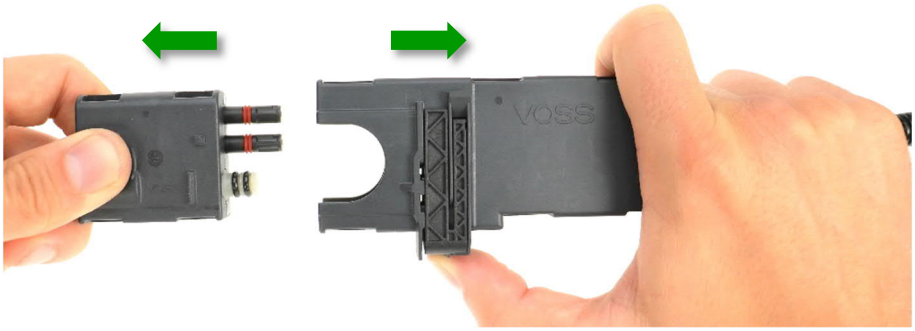


Fig. 16: Separation of plug and coupling side of QC system 301 *EFSP2*

Step 4

Final situation: Completely separated plug and coupling side

Fig. 17: Completely separated plug and coupling side of QC system 301 *EFSP2*

Customer service

Contact VOSS for questions concerning quick connect systems, nylon tubes, line routing, etc.

Property rights

Technical modifications and errors excepted.

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