

Type **TW111**

Quick connector for filling refrigerants

in refrigerating and air conditioning systems that use ‚Schrader‘ valves



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PLEASE NOTE

Dear Customer!

Thank you for deciding to use a WEH connector.

If you have any suggestions for improvements to the product, please contact us.

Read these operating and installation instructions carefully and follow them whilst using any WEH connector. The statements in these instructions correspond to the state of knowledge at the time of printing. Failure to observe these instructions may result in a loss of warranty. Supplementary arrangements have to be confirmed by the WEH QA-Management in writing.

WEH products can be used in various operating conditions so the user must check if it is suitable for the specific application. In case of doubt, or questions arising for your special application, please contact our QA-Management. The relevant legal provisions, e.g. factory acts, certificates etc. have to be observed. Our 'General Terms and Conditions' apply.

1 SAFETY INSTRUCTIONS

- 1.1 The WEH connector may only be used for the application for which it was designed for.
- 1.2 TW111 connectors must only be used on 'Schrader' type connections of the specific size as indicated by the part number. Do not use these connectors with any size or style of valve other than that which the connector is specifically designed for. Improper use could cause separation of the connector from the valve resulting in physical harm or damage. The connector part number and maximum pressure rating are both marked clearly on the connector body.
- 1.3 **Note:** All operating parameters should be considered when connector selection is made. Parameters include, but are not limited to: dimensional tolerance of 'Schrader' type valve, pressure or vacuum requirements of application, fluid compatibility, temperature, environment and mechanical load or vibration effecting the connector.
- 1.4 Do not connect to damaged threads.
- 1.5 In case of damage and queries concerning the proper function of the connector, the connector must not be used until clarification is sought. The connector may only be dismantled by WEH or specially trained service personnel.
- 1.6 Where dangerous operating conditions exist, appropriate safety measures must be taken.
- 1.7 Please conform to any corresponding legal directives, such as for instance any national legislation on safety and health at work. Observe the Pressure Equipment Directive PED97/23/EC.
- 1.8 A copy of these operating instructions should be provided to each person responsible for selecting or using the WEH connector.
- 1.9 If instructions are not completely understood by operators or accessories are missing, contact WEH before attempting use of the connector.
- 1.10 Each delivery must contain:
 - a) A delivery note
 - b) An original WEH test report (for complete connectors only)
 - c) WEH operating instructionsIn case of missing documents, please contact the manufacturer.

- 1.11** Based on his technical training, his knowledge and experience and his knowledge of the applicable standards, the operator must be able to evaluate the work entrusted to him and recognize possible dangers.
- 1.12** **Note:** The jaws of the WEH TW111 connector are designed to grip a ‚Schrader‘ type valve. Keep fingers and other objects away from the gripping jaws when actuating the connector. Pinching or crushing can occur.
- 1.13** Possible consequences:
- Risk of fingers being bruised or cut when connecting
 - Risk to human health and damage to property by parts being released under high pressure
 - Risk to human health by media being released at high pressure
 - Risk to human health by hoses not being secured
- 1.14** Do not use excessive force when connecting and disconnecting.

2 APPLICATION

Suitability for application: When selecting a component, the total system design must be considered to ensure safe, trouble free performance. The correct selection of a component, material, temperature, pressure range as well as proper installation, operation and maintenance are the responsibility of the customer.

The application is defined in the catalogue and in the product documentation attached which can be verified to comply with the connector marking. In case of doubt or questions arising, please contact our QA-Management.

The WEH TW111 connector is designed for filling refrigerants in refrigerating and air conditioning systems that have ‚Schrader‘ type valves.

Unless otherwise stated, the max. operating pressure (PS) is 30 bar.

When selecting the connector for your application please consider the following parameters:

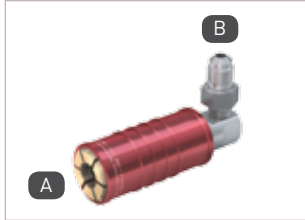
- Tolerance range of the ‚Schrader‘ type valve
- Pressure range
- Temperature
- Environment and radial load
- Pressure surges or vibration
- Resistance to the media used
(do not mix old with new or mix different refrigerants)

3 INSTALLATION



3.1 Visually inspect the connector before installing it. Please check that the product documentation and the connector marking on the TW111 connector comply with your application.

3.2 Connection of the media inlet ,B' of the TW111 connector should be pressure-tight to 20 Nm (see pictures opposite).



3.3 Check the functioning of the clamping jaws by connecting port ,A' of the connector several times to your ,Schrader' type valve. The clamping jaws must firmly grip the valve.

3.4 Carry out suitable tests to your connection to the media inlet of the TW111 connector after it has been installed.

3.5 Periodically inspect the connector and its seals for wear or damage. Replace worn or damaged connectors to prevent failure and potential resulting injury.

4 ACCESSORIES

The following items are available for product maintenance:

- Lubricant: part no. 85789
- O-ring picker: part no. 101969
- Spare O-ring seals: part no. E50-051S720

5 STORAGE

When not in use the connector should be protected against damage, dirt ingress, improper storage and extreme temperature fluctuations.

6 MAINTENANCE

- 6.1** Even when properly specified and installed, connector life can be significantly reduced without regular maintenance. Frequency of maintenance should be determined by how demanding the application is and any risk of potential failure.
- 6.2** Periodic inspection of the connector and seal for correct operation is recommended. The connector should be immediately withdrawn for maintenance or replacement if faulty gripping, sealing or other malfunction occurs.
- 6.3** **We recommend a daily visual inspection of the front seal of the connector for tears or cracks in the O-ring surface.** If tears or cracks are visible replace the O-ring immediately.
- 6.4** Dependent on the media and operating environment a regular routine for lubrication should be established to prevent dryness and/or corrosion. Only lubricants approved by WEH for this application should be used (see point 4 ,Accessories' above)!
- 6.5** Use only original WEH spare parts. These are specifically designed for the application and are subject to strict quality control.
- 6.6** In case of the violation of the operating instructions of the WEH company all guarantee claims of the client will expire. The WEH company will also assume no liability, concerning consequential harm caused by a defect, especially not for loss concerning other subjects and/or persons.

6.7 Check list for inspection:**6.7.1** Inspect for**a) Correct function**

- Does the sliding sleeve operate smoothly without sticking?
- Are the jaws in the open position when not connected?
- Are the jaws without clearance in the longitudinal axis?

b) Leak tightness

The front seal (pos. 7; sealing of the thread) needs to be replaced more frequently dependant on wear. Seal replacement does not require the dismantling of the connector. For special instructions for replacement of the seals see point 8 'Replacement of seal' (page 7). Failure to use original WEH spare seals will result in a loss of warranty.

c) Return damaged or leaking connectors to the manufacturer for repair.

6.7.2 WEH products may only be repaired by the manufacturer or authorized service personnel. Please contact WEH.

7 OPERATION

Connecting procedure**7.1** Pull back the sliding sleeve until it locks into position

➔ the clamping jaws are now open.

7.2 Place the connector onto the valve thread and push the sliding sleeve forward until it stops

➔ the clamping jaws are now locked and the stop valve has opened.

7.3 Refrigerant filling can now begin.**Disconnecting procedure****7.4** After filling is completed, pull back the sliding sleeve and remove the connector from the valve thread

➔ the stop valve of the filling connector is now closed and the clamping jaws have opened.

NOTE: Avoid lateral forces that could cause leaking such as those caused by short media hoses or too narrow bending radius at the filling hose.

8 REPLACEMENT OF SEAL



Replace O-ring seal (pos. 7) if tears or cracks in the o-ring surface appear. There is no need to dismantle the TW111 connector.

Note: use original WEH spare seals because failure to do so could result in the loss of warranty!



8.1 The clamping jaws should be open.

8.2 Lift the old seal using the tool part no. 101969 and remove the old seal (picture 1 and picture 2).

8.3 Be careful that you do not damage the surface of the seal recess (marked red in picture 3).

8.4 Clean the recess of dirt and other residues.

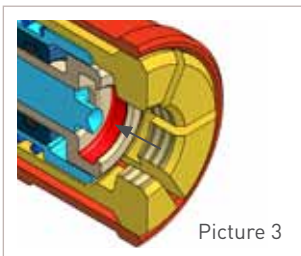
8.5 Verify correct size and material of the front seal.

8.6 Apply a thin coating of the WEH lubricant part no. 85789 on the front seal.

8.7 Insert the new seal. Make sure that the front seal is not twisted and is situated correctly in the recess. Do not use a tool as this may damage the new seal.

8.8 Check that the clamping jaws function correctly. Connect port 'A' of the connector several times to your valve thread to ensure that the clamping jaws firmly grip your valve thread.

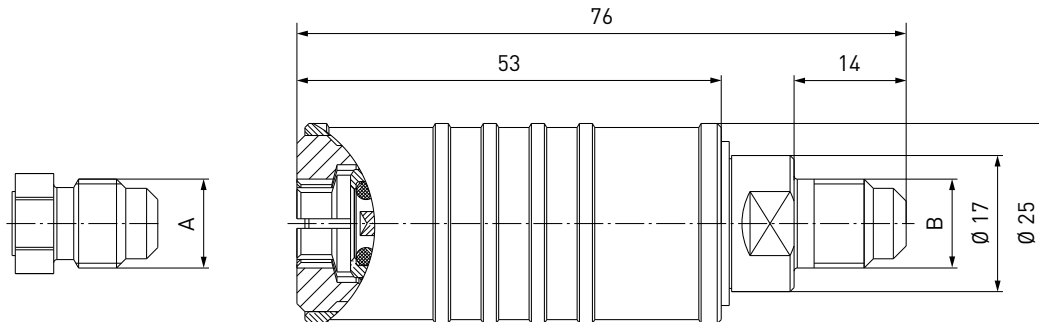
8.9 The TW111 connector is ready to operate.



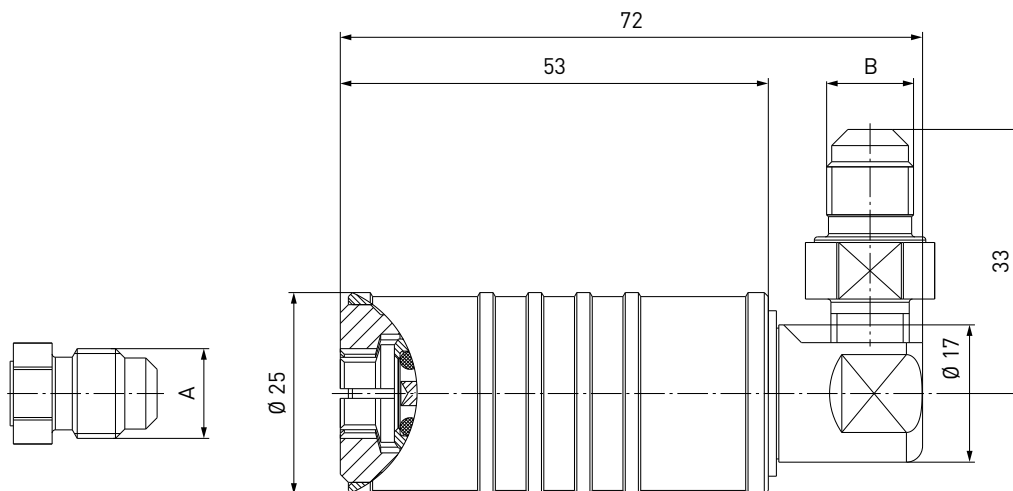
9 DIMENSIONS

approx. dimensions (mm)

TW111 - inline media inlet



TW111 - 90° media inlet



Connection A: UNF 7/16"-20 (SAE J513)

Inlet B: UNF 7/16"-20 (SAE J513)

» Contacting

For queries and further information, please do not hesitate to contact us.

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