

Type **TW04 CNG**

Adaptor Nozzle

for CNG filling of cars (Ital. standard) with a fuelling nozzle acc. to NGV1



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PLEASE NOTE

Dear Customer!

Thank you for deciding to use a WEH® Product.
WEH® Adaptor Nozzle MET CNG has been designed for CNG refuelling of cars having a receptacle profile acc. to Italian standard (G1/2" external thread) with a fuelling nozzle acc. to NGV1 standard.

Each delivery must contain:

- a) A delivery note
- b) An original WEH test report (this does not apply to spare parts)
- c) WEH operating instructions

For missing documents, please contact WEH.

Our 'General Terms and Conditions' apply.

Read these operating instructions carefully and follow them whilst using the WEH® Product.

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. Any variations to these instructions have to be confirmed by the WEH QA management in writing.

Violation of WEH operating instructions will result in a loss of warranty and in addition the WEH GmbH will accept no liability for consequential damage caused to persons or property.

1 GENERAL SAFETY INSTRUCTIONS

For your own safety, please observe the following instructions.

- 1.1 Please conform to any relevant legal directives, such as for instance any national legislation on safety and health at work. Observe the relevant approval standards and directives.
- 1.2 These operating instructions should be provided to each person responsible for installation, operation and maintenance of the product.
- 1.3 If instructions are not completely understood by operators, contact WEH before attempting use of the product.
- 1.4 Where dangerous operating conditions exist, appropriate safety measures must be taken.
- 1.5 In case of damage and queries concerning the proper functioning of the product, do not use the product until clarification has been sought. The product should only be dismantled by WEH.
- 1.6 Service personnel as defined by these instructions are persons able to evaluate the work entrusted to them and to recognize possible dangers according to their knowledge and experience and their knowledge of the standards applicable.
- 1.7 The WEH GmbH is not responsible for any damage resulting from factors outside their control.
- 1.8 Transportation and storage facilities suitable for protection of the product must be used at all times.
- 1.9 WEH® Products may only be repaired by the manufacturer. Please contact us.

- 1.10 Observe the torques indicated in these operating instructions. Tightening with a higher torque can result in fracture damage when the system is pressurized.
- 1.11 Operation only by specially trained service personnel. After instruction by specially trained service personnel on the safe handling of the product, the adaptor nozzle can also be used for self-service.

2 APPLICATION

The application is defined in the catalogue and in the accompanying product documentation. Please check that the product marking, delivery note and test report comply with the application. If you are not certain about correct installation, please contact us before using the equipment.

Note: Self-service operation only after instruction by specially trained service personnel.

2.1 Safety instructions for application

- 2.1.1 Ensure the proper use: The product may be used only if the specified operating pressure and temperature are not exceeded, and the design criteria and media defined in the order are complied with. Please check that the product documentation supplied corresponds to the product marking.
- 2.1.2 Ensure that the connection sizes comply with those of the product. Please check that the product documentation supplied corresponds to the product marking.
- 2.1.3 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.
- 2.1.4 Do not use this product for media other than gaseous, compressed natural gas up to the allowable pressures (see table, page 9) and a temperature range of -40 °C up to +85 °C.

3 OPERATION

3.1 Safety instructions for operation

- 3.1.1 Please check that the specifications in the product documentation and the product marking conform to the application.
- 3.1.2 Do only connect the product to faultless ports.
- 3.1.3 Check the ports and the product for impurities and damage.
- 3.1.4 Do not use excessive force when connecting.
- 3.1.5 **Strictly** observe the right order when connecting and disconnecting the adaptor nozzle.
- 3.1.6 Do not connect or disconnect the adaptor nozzle in pressurized condition.
- 3.1.7 Follow the instructions for connection and disconnection of the fuelling nozzle acc. to NGV1 standard. For detailed information please refer to the respective operating instructions of the fuelling nozzle used.

3.2 Operation

- 3.2.1 Place the TW04 CNG adaptor nozzle straight onto the receptacle (acc. to Italian standard G1/2", external thread).
Screw the grip sleeve handtight onto the receptacle (clockwise) without jamming.
- 3.2.2 The pressure-tight connection is established.
- 3.2.3 Pressurize media inlet 'B1' to refuel the vehicle. For this purpose, connect the appropriate fuelling nozzle acc. to NGV1 standard (TK16 CNG, TK17 CNG etc.) to NGV1 port 'B1' of the adaptor nozzle TW04 CNG.
Please note: 3.1.7.
- 3.2.4 **Vent the filling hose after refuelling.**
Disconnect the fuelling nozzle acc. to NGV1 standard from the TW04 CNG adaptor nozzle.
- 3.2.5 Unscrew the grip sleeve of the TW04 CNG adaptor nozzle from the receptacle (counter-clockwise) and remove adaptor nozzle.

4 EXAMINATION AFTER SEPARATION

In the event of accidental deployment, e.g. driving a vehicle away from the dispenser with the nozzle remaining in the vehicle fuel port, the breakaway coupling will separate the connection between dispenser and filling hose sealing both ends.

The following points are to be observed when separation occurs:

- 4.1 The filling hose is to be replaced after each separation.
- 4.2 The adaptor nozzle is to be sent to the manufacturer for inspection.
- 4.3 The fuelling nozzle acc. to NGV1 standard which was connected to media inlet 'B1' of the TW04 CNG adaptor nozzle is to be sent to the manufacturer for inspection.
- 4.4 The breakaway coupling is to be leak tested. If a local leak test is not possible, the breakaway coupling is to be returned to the manufacturer for inspection, too.
- 4.5 We recommend having the receptacle in the vehicle checked for damage and proper function by an authorized service station.
- 4.6 Recommissioning of the breakaway coupling has to be carried out acc. to the instructions of the corresponding operating instructions.
- 4.7 Failure to observe these instructions invalidate warranty / liability and right of recourse.

5 ACCESSORIES | SPARE PARTS

Spare parts

The following parts are available for product maintenance:

Part No.	Position	Description
E51-231S810	Pos. 7	Front seal acc. to Italian standard
E50-45212	Pos. 8	Front seal NGV1
W136538	--	O-ring picker set (consisting of 3 O-ring pickers, Part No. E98-101969)*
E34-82427	--	WEH® Assembly tool for removal of old front seal NGV1
E34-93289	--	WEH® Assembly tool for installation of new front seal NGV1
E99-4	--	WEH® Lubricant

* NOTE: The O-ring picker is manufactured from plastic and has to be considered as a consumable product!

6 STORAGE

- 6.1 Protect the product against damage, dirt ingress, improper storage and excessive temperature fluctuations.
- 6.2 Store the product, the accessories and spare parts in the original packaging until use.

7 MAINTENANCE

- 7.1 Regularly inspect the product according to the individual operating conditions, at least, however, every 3 months. Inspect for leak tightness and correct operation (free-moving, adequate lubrication with substances approved by WEH for this application wear, dirt ingress, damage). The product has to be sent to the manufacturer for refurbishment after 3 years at the latest.
- 7.2 The surface of the front seal must be checked daily (NGV1 and Italian Standard). Replace the front seal if tears, cracks or damage are visible. The front seal has to be replaced (see chapter 8 - Replacement of front seal) at least every 1,000 cycles. Should this interval be too long, shorter intervals must be observed.
- 7.3 Periodically inspect the product for proper operation. Immediate withdrawal for maintenance or replacement of the connector is required if positive gripping, sealing and/or proper performance is not being achieved.
- 7.4 WEH® Products may only be repaired by the manufacturer. Please contact us.
- 7.5 Only use original WEH® Spare parts. These fit the application correctly and are subject to strict quality control.
- 7.6 Violation of WEH maintenance instructions specified in this document will result in a loss of warranty and in addition the WEH GmbH will accept no liability for consequential damage caused to persons or property.

8 SEAL REPLACEMENT



Figure 1 - Seal replacement (Pos. 7) Italian Standard



Figure 2 - Seal replacement (Pos. 8) NGV1

Note: Both the NGV1 connection port (B1) and the connection port according to Italian standard (B2) are equipped with a front seal. Before installing, visually inspect the adaptor nozzle and check for correct type, sealing material and part number (see chapter 5 - Accessories | Spare parts).

- 8.1 Hold the adaptor nozzle TW04 CNG with one hand to remove the old front seal (Pos. 7 respectively Pos. 8).
 - 8.2 Remove the old front seal (Pos. 7, figure 1 / Pos. 8, figure 2) from the seal seat using the corresponding assembly tool.
(Pos. 7: O-ring picker Part No. E98-101969, Pos. 8: WEH® Assembly tool Part No. E34-82427).
 - 8.3 Make sure not to damage the surface of the seal seat.
 - 8.4 Clean the seal seat of dirt and other residues.
 - 8.5 Slightly grease the new front seal (Pos. 7 respectively Pos. 8) with WEH® Lubricant Part No. E99-4 and place the new front seal into the adaptor nozzle. Make sure to use the right front seal (see chapter 5 - Accessories | Spare parts, Pos. 7 - Part No. E51-231S810 respectively Pos. 8 - Part No. E50-45212). Use WEH® Assembly tool (Part No. E34-93289) for installation of the NGV1 front seal (Pos. 8). For installation of the front seal acc. to Italian standard (Pos. 7) no additional tool is required.
- Note:** The new front seal must be properly seated in the intended recess and may not be twisted.

9 DESCRIPTION

Pos.	Description
1	Grip sleeve
7	Front seal (Italian standard)
8	Front seal (NGV1)

Definition ports

- B1** Media inlet (NGV1)
- B2** Media outlet (Italian standard - G1/2" external thread)



TW04 CNG with integrated shut-off valve



Front seal Italian standard



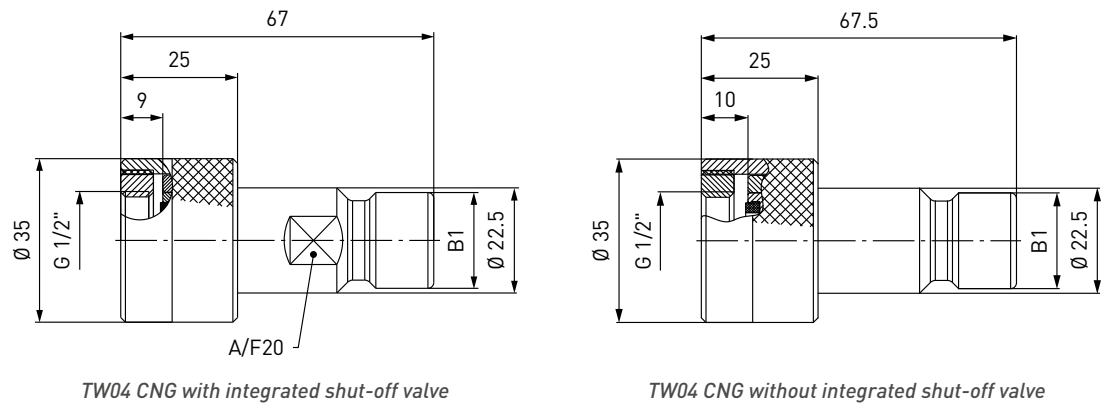
TW04 CNG without integrated shut-off valve



Front seal NGV1

10 DIMENSIONS

approx dimensions (mm)



Description	Pressure (PN)	Inlet B1
Adaptor nozzle TW04 CNG with integrated shut-off valve	200 bar	NGV1
Adaptor nozzle TW04 CNG without integrated shut-off valve	200 bar	NGV1

Description	Pressure range	PN* (bar)	PS* (bar)	PT* (bar)
Adaptor Nozzle TW04 CNG	B200 acc. to ISO 14469-1 (P30 acc. to ANSI NGV1)	200	300	450

* Definition acc. to pressure equipment directive PED 2014/68/EU
 PN = Nominal pressure referring to a gas temperature of 15 °C
 PS = Max. operating pressure
 PT = Test pressure

» Contacting

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

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