

Date: 04/2021

# Type TK17 H<sub>2</sub> 70 MPa ENR WEH<sup>®</sup> Fueling nozzle with exchangeable data interface for hydrogen fast filling

of cars at self-service fueling stations



## General

## DESCRIPTION



## Features

- Type C nozzle acc. to SAE J2600:2002, paragraph 5.2
- Left or right single-handed operation
- Compatible with WEH<sup>®</sup> TN1 H<sub>2</sub> 70 MPa Receptacle profile
- Exchangeable data interface (ENR)
- Integrated purging line for nitrogen purging
- Prepared for dispenser mounting with purging system
- WEH<sup>®</sup> EASY-TURN 250° swivel joint
- Increased robustness in case of improper handling
- Easy operation
- High flow rate → short filling times
- Protecion against impact and cold
- Plastic thermal protection
- Hand grip with magnet
- WEH<sup>®</sup> Jaw locking mechanism
- High-grade materials
- Coding for pressure range / gas type (acc. to table below)

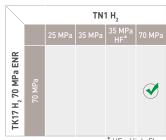
The WEH<sup>®</sup> TK17 H<sub>2</sub> 70 MPa ENR Fueling nozzle with exchangeable data interface (ENR = exchangeable nozzle receiver) was developed for refueling cars with compressed, gaseous hydrogen (CGH<sub>2</sub>). The fueling nozzle provides the same proven characteristics as the already known TK17 H<sub>2</sub> 70 MPa.

The new TK17  $H_2$  70 MPa ENR is additionally equipped with a purging line, that allows purging with nitrogen during and after fueling process. This can prevent ingress of moisture and formation of ice crystals when filling with pre-cooled

hydrogen. Removing the fueling nozzle from the receptacle is thus facilitated even in unfavorable climatic conditions.

The efficiency of the purging line has been successfully tested in compliance with the freezing test 7.26 from the draft version of ISO 17268.

The WEH<sup>®</sup> TK17  $H_2$  70 MPa ENR offers optimum safety for the operator thanks to the locking mechanism. The fueling nozzle remains connected to the receptacle until the locking mechanism is released by the operator.



#### HF = High-Flow

## Application

Fueling nozzle for hydrogen fast filling of cars at self-service fueling stations.

## **TECHNICAL DATA**

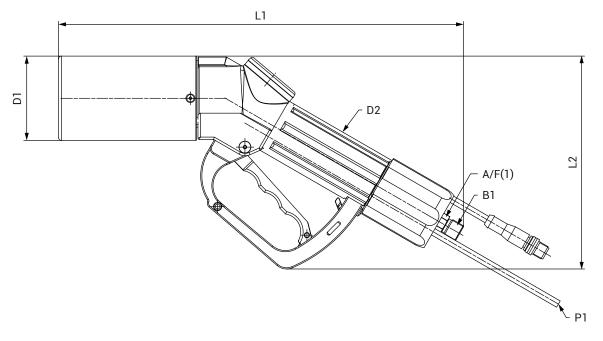
Characteristics	Basic version
Nominal bore (DN)	4 mm
Pressure range	PN = 70 MPa (10,000 psi)   PS = 87.5 MPa
Temperature range	-40 °C up to +85 °C (-40 °F up to +185 °F)
Material	Corrosion resistant
Sealing material	Hydrogen resistant
Design	With plastic thermal protection, cold protection, hand grip with magnet, exchangeable data interface acc. to SAE TIR J2799 and integrated purging line
Weight	Approx. 2.4 kg (5.29 lbs.)
Medium for purging	Nitrogen
Nominal bore (DN) purging line	4 mm
Media temperature range purging medium	-20 °C up to +85 °C (-4 °F up to +185 °F)
Flow rate during purging	500 NI/h
Conformity / Tests / Approvals	Fueling nozzle: SAE TIR J2799, tests acc. to SAE J2600:2002 IR data interface: ATEX, NEC or KTL

TK17 H<sub>2</sub> 70 MPa ENR | WEH<sup>®</sup> Fueling nozzle

Ordering / Accessories

## ORDERING | WEH<sup>®</sup> TK17 H<sub>2</sub>70 MPa ENR Fueling nozzle

approx. dimensions (mm)



Part no.	Description	Pressure (PN)	B1 (male thread)	P1	L1	L2	D1	D2	A/F(1)
C1-160702-X01	TK17 $H_2$ 70 MPa ENR (ATEX IR data interface)	70 MPa / 10,000 psi	UNF 9/16"-18 <sup>*</sup>	Ø6	339	175	70	46	14
C1-160701-X01	TK17 H <sub>2</sub> 70 MPa ENR (NEC IR data interface)	70 MPa / 10,000 psi	UNF 9/16"-18 <sup>*</sup>	Ø 6	339	175	70	46	14
C1-164846	TK17 H <sub>2</sub> 70 MPa ENR (KTL IR data interface)	70 MPa / 10,000 psi	UNF 9/16"-18 <sup>*</sup>	Ø6	339	175	70	46	14

\* 60° inner cone

Fueling assemblies consisting of fueling nozzle, hose set and breakaway coupling are available on request.

## ACCESSORIES

The following accessories are available for the WEH® TK17 H<sub>2</sub> 70 MPa ENR Fueling nozzle:

## Hose set

Hose set for connecting fueling nozzle and TSA1 H<sub>2</sub> 70 MPa breakaway coupling, complete with filling hose (for pre-cooled hydrogen), data cable, purging line and braided protection hose as cover.

Design filling hose: max. operating pressure PS: 87.5 MPa / nominal bore (DN): 4.5 mm / temperature range: -40 °C up to +65 °C (-40 °F up to +149 °F)

P2 B2	P1 B1

Part no.	B1/B2 (female thread)	P1/P2	Hose length
E68-161886	UNF 9/16"-18 <sup>*</sup>	Ø6	3 m
E68-161887	UNF 9/16"-18 <sup>*</sup>	Ø6	4 m
E68-161888	UNF 9/16"-18 <sup>*</sup>	Ø6	5 m
* DK LE00			

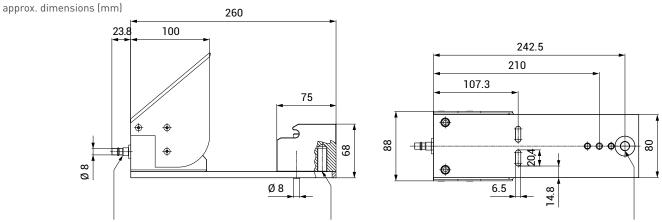
\* DKJ 58°

## TK17 H<sub>2</sub> 70 MPa ENR | WEH<sup>®</sup> Fueling nozzle

Accessories

### **Dispenser mounting**

Mounting for safe attachment of the fueling nozzle to the dispenser. The mounting is equipped with a port for purging operations, that allows purging of the fueling nozzle whilst not in use. Optionally a magnetic field sensor can be installed.



Port for purging operations

Installation possibility for optionally available magnetic field sensor

-	Part no.	Description
	C1-122121	Dispenser mounting (switch actuated) with weather protection, special cover for impact protection sleeve and purging system
51	E68-123980	Magnetic field sensor with 2 m cable, explosion-proof acc. to ATEX

## Data cable

Part no.	Description	Hose length
E68-96194	Data cable suitable for 4 m hose set	4.45 m
E68-96193	Data cable for connecting with the converter	3.45 m

Other lengths on request

## TNS1 H<sub>2</sub> Service receptacle

To prevent damage in the fueling nozzle while purging or leak testing during maintenance in the course of which pressure is applied, we recommend the use of a service receptacle. The receptacle also protects the fueling nozzle from dirt ingress whilst not in use.

Part no.		Description
Care and	C1-148079	TNS1 $H_2$ Service receptacle incl. protection cap

## Spare parts

## **SPARE PARTS**



Various parts are available as spares for the WEH $^{\odot}$  TK17 H $_2$  70 MPa ENR Fueling nozzle.

Part No.	Description
W137968	1 Impact protection sleeve (incl. 3 countersunk screws)
W137969	2 ATEX IR data interface (incl. 3 cylinder screws, 3 countersunk screws and o-ring)
W140915	2 NEC IR data interface (incl. 3 cylinder screws, 3 countersunk screws and o-ring)
W166319	2 KTL IR data interface (incl. 3 cylinder screws, 3 countersunk screws and o-ring)
E80-84030	3 Locking lever
E69-161748	4 Logo cap
E80-59738	4 Label plate
E80-162272	5 Plastic thermal protection (cold protection)
E99-44923	Maintenance spray

When ordering please specify the part no. engraved on the fueling nozzle.

# TK17 H<sub>2</sub> 70 MPa ENR | WEH<sup>®</sup> Fueling nozzle

**Technical explanations** 

## **TECHNICAL EXPLANATIONS**

### Abbreviations/Definitions

For explanation of abbreviations and definitions of terms see Technical Appendix of the corresponding catalog or www.weh.com

#### Illustrations

The illustrations and/or images used in these data sheet are particularly provided for illustrative purposes only and may differ in some details from the actual product. For binding information, please refer to your individual orders.

#### Safe product selection

*Our* WEH<sup>®</sup> Products are designed to be operated by qualified professional users (insofar as WEH<sup>®</sup> Products are also designed to be operated by other users in individual cases, this is explicitly stated in the corresponding operating instructions). Please note that WEH does not know your system and therefore - also due to the large number of different potential applications of WEH<sup>®</sup> Products - cannot perform tests on all potential types of application. You alone are responsible for the selection, configuration and suitability of WEH<sup>®</sup> Products, especially according to the requirements of your system. Before purchasing WEH<sup>®</sup> Products, please particularly ensure that our products are compatible with your intended use, your performance data, your material and fluids, your system concept and your system limits according to our product specifications. Please also consider your technical and legal requirements for operation, handling and maintenance. The quality and safety of WEH<sup>®</sup> Products is our highest priority. For this reason, WEH<sup>®</sup> Product is suitable for your system and intended use, please contact us in advance. We also strongly recommend that you refrain from using third-party spare parts or a combination of WEH<sup>®</sup> Products with unsuitable third-party products. You alone are responsible for reviewing the suitability of third-party products. WEH<sup>®</sup> Products and WEH<sup>®</sup> Products and WEH<sup>®</sup> products.

#### Service life

WEH<sup>®</sup> Products are generally products which may be subject to wear and fatigue during operation and depending on your individual application/use. For details - in particular regarding the corresponding minimum inspection and maintenance intervals – please refer to the respective operating instructions for the WEH<sup>®</sup> Product.

#### Explanation on the Pressure Equipment Directive

These WEH<sup>®</sup> Products are generally classified as pressure accessories in accordance with Article 2 (5) of the Pressure Equipment Directive 2014/68/EU and are considered to be similar to piping. These WEH<sup>®</sup> Products may not be used as safety accessories. Furthermore, it is pointed out, that these WEH<sup>®</sup> Products are designed and placed on the market in accordance with the requirements of Article 4 (3) of the Pressure Equipment Directive 2014/68/EU. The assessment with regard to a different classification can, however, be made on request.

#### External change management

WEH reserves the right to update, optimise and adjust its products continuously. This may result in corresponding changes of the product. Customers will be informed proactively or unsolicited by WEH only in individual cases about product updates, product optimisations and/or product adaptations that have been carried out. You are free to contact WEH at any time to request information about any product updates, product optimisations and/or product adjustments.

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## >> Contact

More questions? - Great! Don't hesitate to contact our experts.

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