

# Type **TSF4 H<sub>2</sub>** WEH<sup>®</sup> Filter

for installation onboard hydrogen vehicles and in hydrogen fueling stations



General

**DESCRIPTION**



**Features**

- For hydrogen free of impurities
- Filter insert can be cleaned
- For installation onboard H<sub>2</sub> vehicles and in H<sub>2</sub> fueling stations

Contaminants in the gas flow can enter the vehicle’s storage tank during refueling. These dirt particles in the hydrogen fuel may cause damage to the sealing components. WEH, therefore, offers the WEH® TSF4 H<sub>2</sub> Filter Series for clean hydrogen. Solid particles are captured reliably.

The filter element can be removed and is re-usable after having been cleaned.

The filter is mainly used for onboard H<sub>2</sub> powered vehicles, but can also be used for fueling stations and dispensers.

The WEH® TSF4 H<sub>2</sub> is available as round filter and as T-filter.

The round filter is available with tube fitting or male and female thread.

The T-filter has been specially designed for use in H<sub>2</sub> buses and trucks.

The filter can be removed for cleaning purposes without tedious unscrewing of the media lines.



TSF4 H<sub>2</sub> T-Filter

**Application**

Filter for installation onboard hydrogen vehicles (e1 approval) and in hydrogen fueling stations.

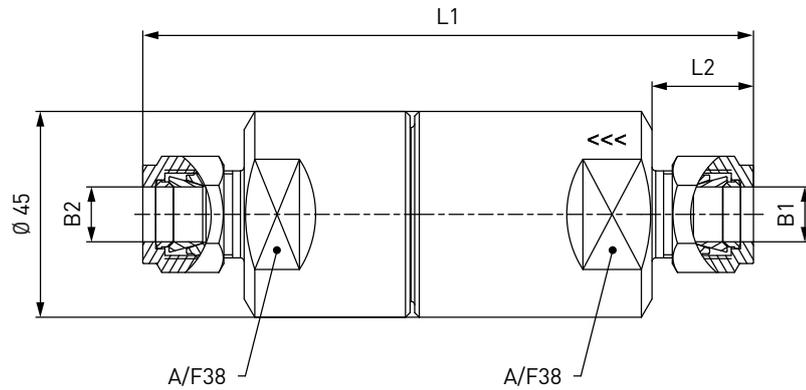
**TECHNICAL DATA**

Characteristics	Basic version	Options
Nominal bore (DN)	Depending on design	On request
Pressure range	PN = 35 MPa (5,000 psi)   PS = 45 MPa	
Temperature range	-40 °C up to +85 °C (-40 °F up to +185 °F)	On request
Material	Corrosion resistant stainless steel	On request
Sealing material	Hydrogen resistant	On request
Filter element	40 resp. 10 micron	On request
Design	Incl. fittings (only for filters with tube fitting)	On request
Conformity / Tests / Approvals	e1 approval on request	

Ordering

**ORDERING** | WEH® TSF4 H<sub>2</sub> Round filter with tube fitting on both sides

approx. dimensions (mm)

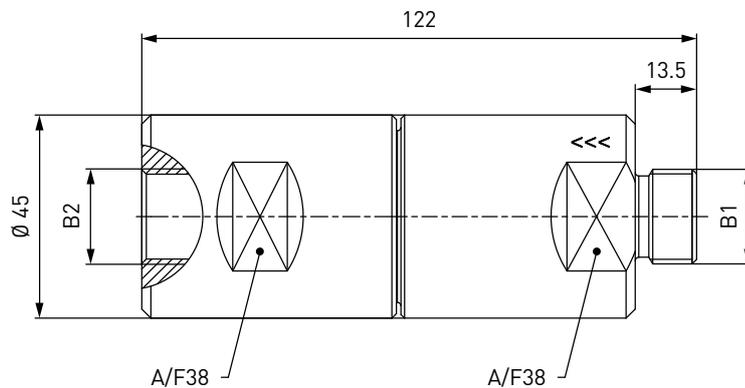


Part No.	Description	Filter (micron)	DN	Pressure (PN)	B1	B2	L1	L2
<b>C1-33157-X01</b>	TSF4 H <sub>2</sub>	10	8	35 MPa / 5,000 psi	Tube Ø 3/8"*	Tube Ø 3/8"*	128	20
<b>C1-69045-X01</b>	TSF4 H <sub>2</sub>	10	8	35 MPa / 5,000 psi	Tube Ø 10*	Tube Ø 10*	128	20
<b>C1-36032-X01</b>	TSF4 H <sub>2</sub>	40	8	35 MPa / 5,000 psi	Tube Ø 10*	Tube Ø 10*	129	20
<b>C1-30214-X01</b>	TSF4 H <sub>2</sub>	40	10	35 MPa / 5,000 psi	Tube Ø 12*	Tube Ø 12*	133	22
<b>C1-59447-X01</b>	TSF4 H <sub>2</sub>	10	10	35 MPa / 5,000 psi	Tube Ø 1/2"*	Tube Ø 1/2"*	133	22
<b>C1-49130-X01</b>	TSF4 H <sub>2</sub>	40	9	35 MPa / 5,000 psi	Tube Ø 1/2"*	Tube Ø 1/2"*	133	22
<b>C1-30213-X1-X01</b>	TSF4 H <sub>2</sub>	40	12	35 MPa / 5,000 psi	Tube Ø 16"*	Tube Ø 16"*	134	23

\* double ferrule fitting

**ORDERING** | WEH® TSF4 H<sub>2</sub> Round filter with male and female thread

approx. dimensions (mm)

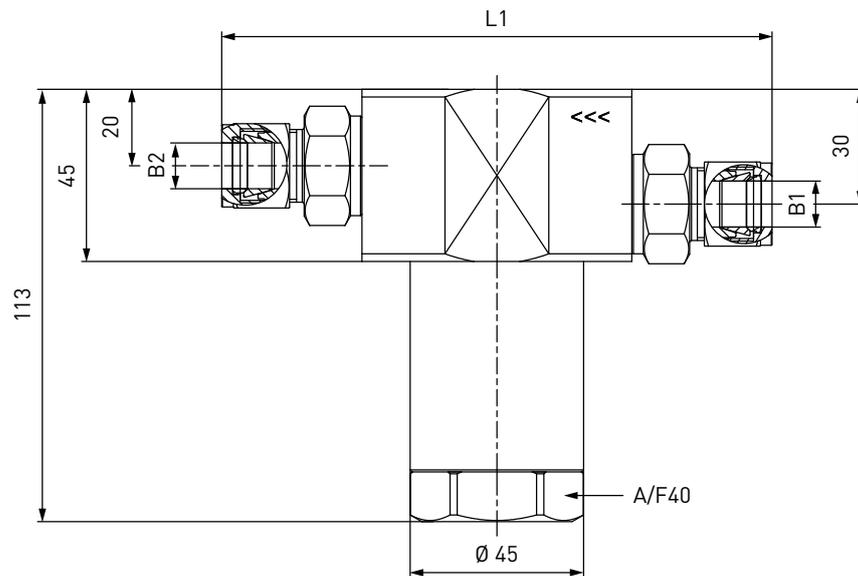


Part No.	Description	Filter (micron)	DN	Pressure (PN)	B1 (male thread)	B2 (female thread)
<b>C1-36114-X01</b>	TSF4 H <sub>2</sub>	40	12	35 MPa / 5,000 psi	G1/2"	G1/2"

Ordering / Spare parts

**ORDERING** | WEH® TSF4 H<sub>2</sub> T-Filter with tube fitting on both sides

approx. dimensions (mm)



Part No.	Description	Filter (micron)	DN	Pressure (PN)	B1	B2	L1
<b>C1-117286-X01</b>	TSF4 H <sub>2</sub>	40	6	35 MPa / 5,000 psi	Tube Ø 8*	Tube Ø 8*	140
<b>C1-70379-X01</b>	TSF4 H <sub>2</sub>	10	8	35 MPa / 5,000 psi	Tube Ø 3/8"*	Tube Ø 3/8"*	140
<b>C1-58026-X01</b>	TSF4 H <sub>2</sub>	10	10	35 MPa / 5,000 psi	Tube Ø 12*	Tube Ø 12*	145
<b>C1-73987-X01</b>	TSF4 H <sub>2</sub>	10	10	35 MPa / 5,000 psi	Tube Ø 1/2"*	Tube Ø 1/2"*	145
<b>C1-47886-X01</b>	TSF4 H <sub>2</sub>	40	12	35 MPa / 5,000 psi	Tube Ø 16*	Tube Ø 16*	145
<b>C1-69040-X01</b>	TSF4 H <sub>2</sub>	10	12	35 MPa / 5,000 psi	Tube Ø 16*	Tube Ø 16*	145

\* double ferrule fitting

**SPARE PARTS**

Various parts are available as spares for the WEH® TSF4 H<sub>2</sub> Filter.

Part No.	Description
<b>E69-9062</b>	Wire filter insert 40 micron
<b>E69-9063</b>	Wire filter insert 10 micron
<b>E51-47589</b>	O-ring for filter insert (only T-filter)

## 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](http://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® Products are designed to be operated by qualified professional users (insofar as WEH® 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® Products - cannot perform tests on all potential types of application. You alone are responsible for the selection, configuration and suitability of WEH® Products, especially according to the requirements of your system. Before purchasing WEH® 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® Products is our highest priority. For this reason, WEH® Products may not be used outside the specifications in the relevant data sheets and product descriptions. If you are not sure whether the WEH® 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® Products with unsuitable third-party products. You alone are responsible for reviewing the suitability of third-party products. WEH® Products and WEH® Spare parts comply with our quality and safety standards.

#### Service life

WEH® 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® Product.

#### Explanation on the Pressure Equipment Directive

These WEH® 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® Products may not be used as safety accessories. Furthermore, it is pointed out, that these WEH® 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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