WEH® Filter technology

for gaseous media

ORIGINAL WEH® QUALITY since 1973



50+ YEARS Quality & Safety

WEH® - We Engineer Hightech

To the current catalog version:

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» Table of Contents

1 | Filter overview 6

1.2 | General information 6

2 | Technical gases for industrial applications 10

2.1 | Introduction page 10

2.2 | Inline particle filter TSF4 for inert gases and oxygen 12

2.2.1 | Filter TSF4-Inline 12

2.3 | T-shape particle filter TSF4 for inert gases 14

2.3.1 | Filter TSF4 14

2.4 | Coalescing filter TSF2 for inert gases 16

2.4.1 | Filter TSF2 16

3 | Alternative fuels and energy technology 18

3.1 | Introduction page 18

3.2 | H_2 particle filter 20

3.2.1 | Filter TSF2 H_2 20

3.2.2 | Filter TSF4 H_2 24

3.3 | H_2 coalescing filter 26

3.3.1 | Filter TSF2 H_2 26

» Table of Contents

3.4 | CNG particle filter 28

3.4.1 | Filter TSF1 CNG 28

3.4.2 | Filter TSF2 CNG 32

3.4.3 | Filter TSF4 CNG 34

3.4.4 | Filter TSF5 CNG 38

3.5 | CNG coalescing filter 40

3.5.1 | Filter TSF2 CNG 40

4 | Further Information 44

4.1 | Technical Appendix 44

4.2 | Brochure data 46

» General information

WHY FILTERS ARE INDISPENSABLE

Even the smallest contaminants in technical systems pose a risk:
They lead to premature wear, impair functionality, and in the worst case, endanger the entire system. Filters are therefore essential to protect components in the long term and ensure the reliable operation of systems. WEH® filters help maximize system availability and minimize downtime – for greater efficiency, safety, and durability.

WEH® filters help to maximize system availability and minimize downtimes - for greater efficiency, safety and longevity.

THE POSSIBILITIES OF WEH® FILTER TECHNOLOGY

WEH® filters offer more than just reliable media cleaning - they are the result of sophisticated technology, intelligent design and practical experience. Our portfolio covers a wide range of requirements - from simple protective filters to highly specialized solutions for critical applications.

An overview of our filter solutions:

- **Particle filter :** For separating solid contaminants from gaseous media
- **Coalescing filter :** For separating liquid aerosols from gas streams
- **Wire wound filter inserts :** Reusable, durable, easy to maintain
- **Designs:** Inline or T-shaped - can be flexibly integrated into your system
- **Pressure ranges:** Solutions for applications up to 490 bar
- **Filter fineness:** Typically between 10 - 50 microns

Whether a series solution or project-specific customization - we develop filters that exactly match your requirements.

Even more from a single source

In addition to our extensive range of filters, we offer a complete portfolio of components for the safe handling of technical gases and alternative fuels. Discover our other catalogs - specifically tailored to your application:

- **Refueling technology for hydrogen**
- **Refueling technology for natural gas**
- **Components for the construction of safe gas technology systems and installations**
- **Check valves for liquid and gaseous media**

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WEH® particle filters for pure gases and reliable components

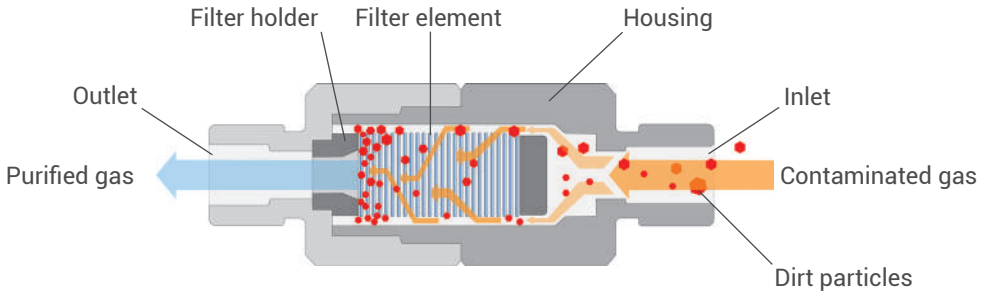
The smallest solids in the gas flow - metal abrasion, rust, dust, sealing residues - are frequent causes of problems in high-pressure systems. WEH® particle filters consistently eliminate these risks and protect downstream components such as valves, regulators and sensors. This keeps sensitive components clean for safe processes and long-lasting systems.

Function of the particle filters

The pressurized gas flows into the filter inlet and passes through a fine filter element. Impurities are separated by various physical effects:

- **Direct impact:** Larger particles impact directly onto the filter medium and adhere there.
- **Inertia effect:** Heavier particles do not follow the gas flow when changing direction and are deposited.
- **Sieve effect:** The finest particles remain trapped in the narrow spaces between the media.

The cleaned gas leaves the filter via the outlet. Depending on the installation situation, T-shaped and round inline filters are available - for easy maintenance, low pressure loss and maximum flexibility.



Your **benefits**

Efficient media cleaning
Filter finenesses from 10 to 50 microns - high cleaning performance with minimal pressure loss.

Reusable filter
Wire-wound filter inserts can be cleaned and reused several times - reduces operating costs and saves resources.

Low-maintenance in T-shape
Filter insert is accessible without removing the piping - minimizes downtime for maintenance and inspection.

Highly stable & pressure-resistant
Robust design for up to 490 bar operating pressure - reliable even in demanding applications.

Corrosion-resistant & easy to maintain
Stainless steel and special alloys provide reliable protection - ideal for aggressive or flammable gases.

WEH® coalescing filter for dry, clean gases

In many gas applications, fine liquid aerosols - such as condensate, oil or lubricants - enter the system. These increase the flow resistance, increase energy consumption and can damage components. WEH® coalescence filters reliably remove these aerosols - purely mechanically and without chemical additives.

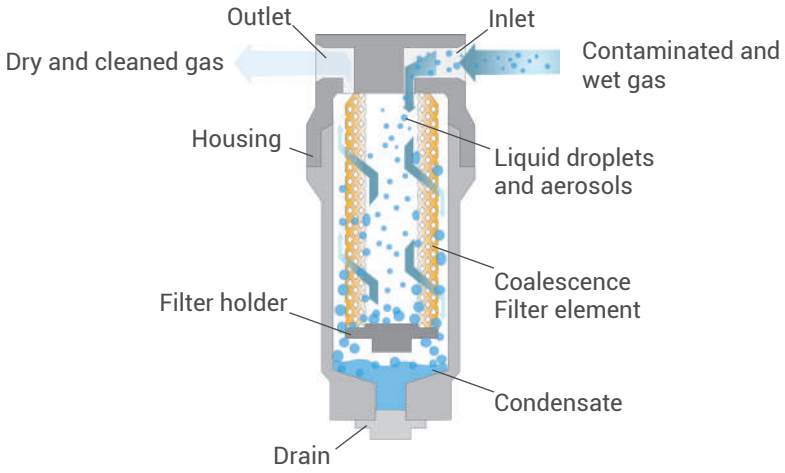
Function of the coalescence filter

The pressurized gas flows into the filter inlet and passes through a multi-layer filter element made of fine-fibre material. Meanwhile, the finest liquid droplets and aerosols are mechanically separated and collected as condensate.

Overview of the separation principle:

- **Accumulation on fibers:** Moist particles adhere to the fiber material.
- **Coalescence:** Small droplets combine to form larger droplets.
- **Gravity separation:** The resulting droplets sink into the filter bell and can be drained.
- **Additional solids separation:** Dust, rust or abrasion are also mechanically retained.

This keeps the gas clean and dry - and your system protected.



Your **benefits**

Effective aerosol separation
The finest droplets adhere to fibers, combine and are reliably separated.

Mechanical & chemical-free
Coalescence principle without additives - protects the environment and minimizes effort.

Optimized flow
Targeted deceleration of the gas flow promotes droplet formation - for maximum separation efficiency.

Highly stable & robust
Pressure-resistant and suitable for high pressures up to 450 bar - for demanding industrial applications.

Easy maintenance
Safe condensate removal: Separated liquid collects in the base of the housing and can be drained in a controlled manner

» General information

OVERVIEW OF ABBREVIATIONS / DEFINITIONS OF TERMS

The abbreviations used in this catalog for operating media connections are defined as follows:

Example: TSF4 CNG

B1	Operating medium inlet
B2	Operating media outlet



For further abbreviations and definitions of terms and their explanations, see the technical appendix on page 44.

All WEH® filters are made in Germany, from development to production.
We rely on the highest manufacturing standards, 100% outgoing goods inspection and certified quality management in accordance with **ISO 9001:2015, ISO 14001:2015 and the Pressure Equipment Directive 2014/68/EU (Module H).**

Order

In order to process your request / order successfully, we generally require the following information:

1. **Part number**
2. **Connection type / Connection size**
3. **Max. allowable operating pressure / Cracking pressure**
4. **Temperature range**
5. **Medium**
6. **Description of the area of application**
7. **CAD drawing of the customer connection**

As a precaution, we would like to point out that

a) in the order confirmation regarding the delivery of any article, in particular ECE / EG79 articles, WEH does not agree to fulfill additional requirements of the end customer concerned,
b) WEH is not subject to any external notification obligation with regard to external change management (see page 45)
c) WEH does not agree to the re-procurement of the product in the form of a regular series delivery.
Exceptions to a) - c) may be agreed in the event of the conclusion of a customer-specific project with corresponding special conditions

Customized solutions

Individual solutions for your application: When standard is not enough, we develop tailor-made components for your processes.
Our approach is structured, efficient and designed for partnership-based cooperation:

1. **Analysis:** Understanding application & framework conditions
2. **Consulting:** Check feasibility, propose solutions
3. **Development:** Design, material selection, simulation
4. **Prototype & test:** Quality and safety tests
5. **Production:** Series or individual solution
6. **Delivery & support:** worldwide, technical support

» General information

FINDING THE RIGHT FILTER - FOR EVERY APPLICATION

Every application places different demands on filtration. Different media, pressures, purity requirements and installation conditions often make the selection process complex.
To help you find your way around, you will find an overview of typical areas of application and a simple selection guide for our WEH® filter solutions here.

OVERVIEW APPLICATIONS CATALOG

Application	Medium	Filter type	PS	Filter fineness	Illustration	Page
Gas filling systems / Gas mixing systems / Laboratories	Inert gases / air / oxygen	Particle filter	420 bar	40µm		12
Test benches / gas applications / industrial plants / laboratories	Inert gases / air	Particle filter	450 bar	10µm		14
		Coalescing filter	490 bar	99,9 % >0,3µm		16
Fueling station / vehicle	Hydrogen (H2)	Particle filter	450 bar	20µm / 40µm		20
			350 bar / 450 bar	10µm		24
		Coalescing filter	490 bar	99,9 % >0,3µm		26
	Natural gas (CNG)	Particle filter	260 bar / 315 bar	40µm / 50µm		28
			300 bar	40µm		32
			260 bar / 300 bar	10µm / 40µm		34
			300 bar / 350 bar	50µm		38
		Coalescing filter	260 bar	99,9 % >0,3µm		40

Filter solutions
for technical gases & industrial applications

Reliable filtration for clean processes and consistent gas quality

In industrial gas applications, the purity of the medium determines the safety, quality and service life of the entire system. Residues from cylinders, pipelines or pressure reducers - such as abrasion, oil, rust or moisture - can disrupt processes, damage devices or have a negative impact on product quality.

WEH® filter solutions ensure clean, dry gases - directly at the point of use or in the central gas supply. They protect downstream components, ensure consistent gas quality and sustainably increase process reliability.

Typical applications

- **Before filling gas cylinders**
  Filtration in the production line to avoid contamination before filling into gas cylinders or bundles.
- **Directly at the tapping point**
  For example after cylinder valve, pressure reducer or tapping fitting - to ensure the gas quality before use in the process.
- **In piping systems**
  Centralized or decentralized filtration to ensure purity in supply systems - e.g. in laboratories, production lines or test benches.

System solutions from one source

WEH supplies not only filters for technical gases, but also fittings for the construction of safe gas systems and installations:

- Shut-off valve
- Check valve
- Vacuum and overpressure protection
- Filling connector
- Components for bottle and piping systems

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Benefits
at a glance

- **Protection**
  against particles, oil, moisture & aerosols
- **Ensuring consistent gas quality**
  at the point of use
- **Preservation**
  of process safety & product quality
- **High pressure & temperature resistant**
  Compliant with the Pressure Equipment Directive 2014/68/EU (Module H)
- **Low pressure loss**
  & easy maintenance
- **Suitable for:**
  helium, nitrogen, argon, compressed air, oxygen and many more.

Filter **TSF4-Inline**

DESCRIPTION



Features
- Suitable for installation in gas mixing plants for the air and gas filtration
- Version for inert gases or oxygen
- Wear and corrosion resistant
- Easy replacement of filter element
- Simple installation
- High-quality materials

Clean, filtered gases are a basic requirement for the proper functioning of individual components when filling gases and using them in gas mixing plants. Seals in particular can be damaged by contaminants in the media flow, such as dirt particles. A special gas filter has been developed to clean the media flow from these components.
The WEH® TSF4 Filter is especially used in filling plants for oxygen and inert gases, such as argon and nitrogen. The filter removes the contaminants from the gas. The gas flows through the filter and the filter retains the dirt particles contained in the gas and in the piping system.
The TSF4 is suitable for high pressures and is particularly easy to maintain. The wire filter insert can be easily removed and cleaned without time-consuming unscrewing of pipes.

The WEH® TSF4 is equipped with a EPDM housing seal. Other sealing materials are available on request. It is the customer's responsibility to clarify the media compatibility.

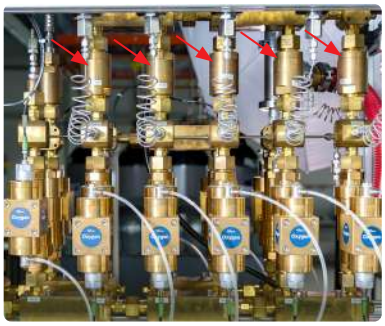
Application
Filter for use with gaseous media and for installation in gas mixing plants.
Suitable for oxygen tests in test laboratories. The german Federal Institute for Materials Research and Testing **(BAM)** is our customer.

TECHNICAL DATA

Characteristics	Basic version
Max. allowable operating pressure PS	420 bar
Temperature range	-20°C up to +85°C -10°C up to +60°C (O_2)
Medium	Inert gases or oxygen
Material	Brass and stainless steel resp. Monel® (O_2)
Sealing material	Housing seal of EPDM
Design	Incl. unscrewable filter element (40 µm)
Conformity / Tests / Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

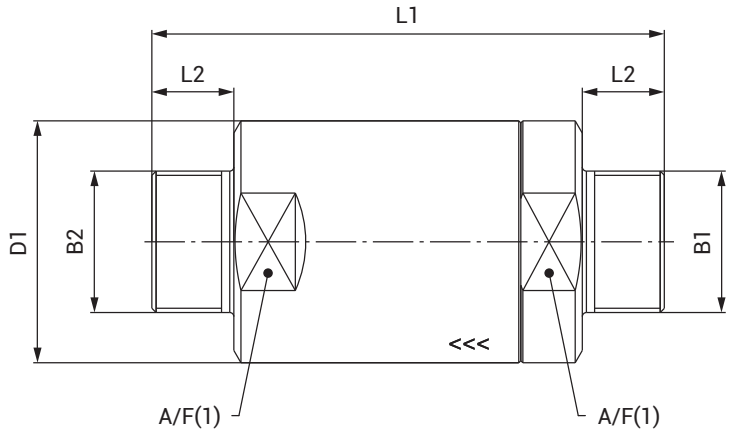
Example of use:



Filter **TSF4-Inline**

ORDERING | WEH® TSF4 Filter

approx. dimensions (mm)



Part no.	Description	B1 (male thread)	B2 (male thread)	L1	L2	D1	A/F(1)
C1-82292-X01	TSF4	UNF 1 3/8"-12	UNF 1 3/8"-12	125	20	59	54
C1-92654-X01*	TSF4	UNF 1 3/8"-12	UNF 1 3/8"-12	125	20	59	54

* for oxygen

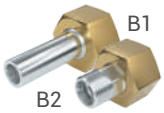
Other connection sizes and types on request. Required information for ordering see page 7, catalog no. 20.

ACCESSORIES

The following accessories are available for the WEH® TSF4 Filter:

Adaptors incl. sleeve nut

Adaptors with threaded or welded connection for installation of the TSF4 filter (ports B1/B2) in pipelines or plants.



Part no.	Description	B1 (female thread)	B2
C1-164158	Adaptor	UNF 1 3/8"-12	M24x1.5* male thread for tube Ø 16
C1-166893	Adaptor	UNF 1 3/8"-12	Tube Ø 16**
C1-164157	Adaptor	UNF 1 3/8"-12	G3/8"
C1-100953***	Adaptor	UNF 1 3/8"-12	Tube Ø 16x2
C1-164156***	Adaptor	UNF 1 3/8"-12	Tube Ø 20x3

* 24° cone connection acc. to ISO 8434-1 (S16xM24)
** double ferrule fitting
*** with welding socket

SPARE PARTS

Various parts are available as spares for the WEH® TSF4 Filter.

Part no.	Description
W9062	Wire filter insert 40 µm
E69-91040*	Wire filter insert 40 µm

* Monel® construction for oxygen

» Filter **TSF4**

NEW

DESCRIPTION



Features
- For reliably purified compressed air and inert gases
- Robust, cleanable filter insert - reusable
- Suitable for installation in industrial gas supply systems

Effective particle filtration for technical gases
In compressed gas lines, solid impurities such as rust, abrasion or dust particles can lead to malfunctions and damage to downstream components - such as seals, valves or measuring systems.
The TSF4 reliably retains particles and thus protects sensitive system areas. The replaceable filter element can be removed for cleaning and reused several times - for low-maintenance and sustainable operation.

The filter was designed for use in industrial gas lines and is also suitable for systems in which technical gases such as argon, helium or gases with a high degree of purity are required.

Application
Partikelfilter für den Einbau in:
- Versorgungsleitungen mit inerten Gasen und Druckluft
- Anlagen im Maschinen- und Anlagenbau
- Technische Gasanwendungen gemäß Druckgeräterichtlinie 2014/68/EU (DGRL)

TECHNICAL DATA

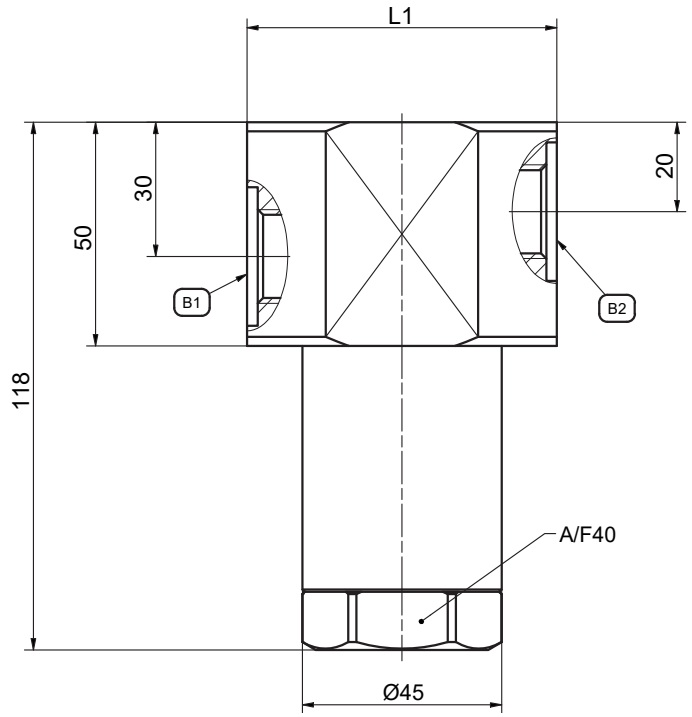
Characteristics	Basic version
PED-nominal size (DN)	DN 23
Max. allowable operating pressure	PS = 45 MPa
Medium	Air / compressed air / inert gas (nitrogen, argon, helium)
Temperature range	-40°C up to +85°C
Material	Corrosion resistant
Sealing material	FKM / PTFE
Filter element	10 µm
Filter type	T-filter
Conformity / Tests / Approvals	Compliant with PED 2014/68/EU

Other designs on request

» Filter **TSF4**

ORDERING | T-filter WEH® TSF4

approx. dimensions (mm)





Part no.	Description	Filter (µm)	Pressure (PS)	B1 female thread	B2 male thread	L1
C1-189541	TSF4	10	45 MPa	G1/2"	G1/2"	70

Other connections (e.g. Cone and Thread Fittings or VOSSLok40) on request.

SPARE PARTS

Various spare parts are available for the WEH® TSF4 filter.

Part no.	Description
W9063	Wire filter insert 10 µm
E51-47589	Sealing ring for filter insert

» Coalescing filter **TSF2**

NEW

DESCRIPTION



Features
- Fine filter with high particle retention capacity (effectiveness of approx. 99.9 % > 0.3 µm)
- Operating pressure (PS) up to max. 490 bar
- For technical gases in industrial applications
- Protects sensitive system components
- Wear-resistant and corrosion-resistant
- Easy maintenance

Clean gases for reliable processes
In industrial applications with inert gases and compressed air, clean, filtered gases are crucial for the reliable operation of systems, valves, sensors and other system components. The TSF2 coalescing filter takes on the task of removing harmful impurities from the gas flow.

Coalescing filter are characterized by their high retention capacity and are therefore significantly more effective than conventional particle filters. The TSF2 filters the gas flow and reliably removes oil mist, water aerosols and dirt particles. These are separated in the filter: Liquid components such as oil and water coalesce (combine to form larger droplets), sink to the bottom of the filter and can be removed via a drain connection.

The TSF2 is designed to be particularly easy to maintain and can be easily integrated into existing systems - even retrospectively.

Application
Coalescence filters for use in:
- Industrial compressed air systems
- Supply lines with inert gases
- Plant engineering and general industrial applications
- Technical gases for inerting, purging or pressurization

TECHNICAL DATA

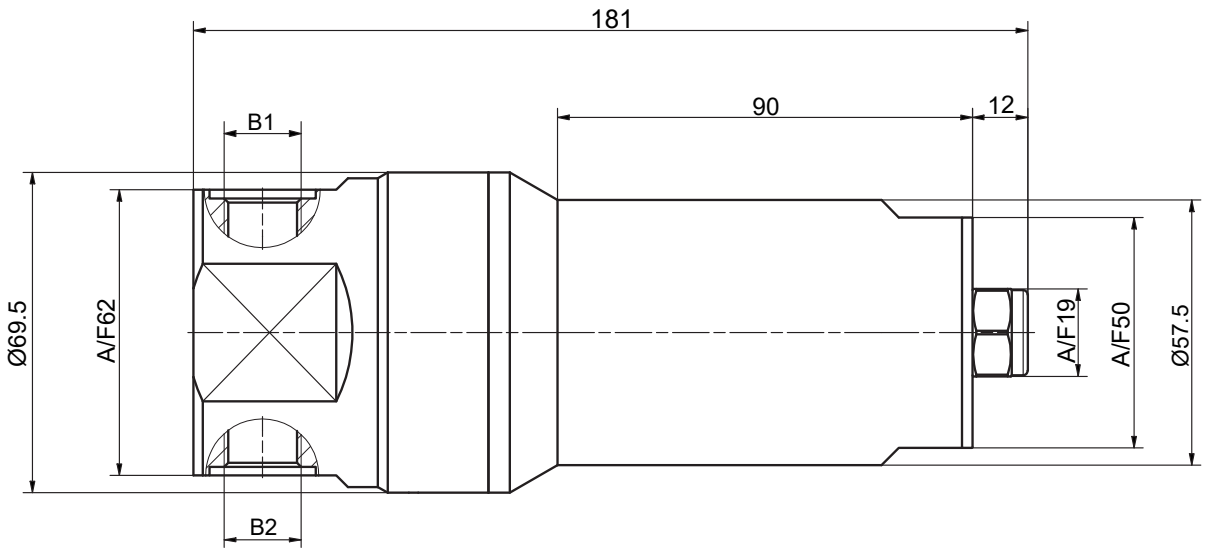
Characteristics	Basic version
PED-nominal size (DN)	DN 19
Max. allowable operating pressure	PS = 49 MPa
Medium	-40°C up to +85°C
Temperature range	Air / compressed air / inert gas (nitrogen, argon, helium)
Material	Corrosion resistant
Sealing material	FKM / PTFE
Filter element	< 0,3 µm
Execution	Including plug
Conformity / Tests / Approvals	Compliant with PED 2014/68/EU

Other designs on request

» Coalescing filter **TSF2**

ORDERING | Coalescing filter WEH® TSF2 with filter cartridge Ø 38 mm

approx. dimensions (mm)





Part no.	Description	Pressure (PS)	B1 female thread	B2 female thread
C1-189520	TSF2	49 MPa	G3/8“	G3/8“

* according to SAE J1926-1

Other connections (e.g. Cone and Thread Fittings or VOSSLok40) on request.

SPARE PARTS

Various spare parts are available for the WEH® TSF2 coalescence filter.

Plug

Plug with matching O-ring (made of polyurethane) to close the oil outlet “Q” (filter end).



Part no.	Description	Connection (male thread)
E69-93336	Plug with O-ring	UNF 9/16“-18*

* according to SAE J1926-1

Spare parts set

Suitable for coalescing filter TSF2.

Part no.	Description
C1-168192	Spare parts set consisting of filter cartridge Ø 38 mm, support ring and 2 O-rings

Filter solutions

for alternative fuels and energy technology

Reliable protection for hydrogen and CNG systems

In hydrogen and natural gas applications, cleanliness is crucial: even the smallest particles, abrasion or liquid residue can affect sensitive high-pressure components such as **couplings, valves or sensors** - with consequences for the safety, efficiency and service life of the entire system.

WEH® filter solutions have been specially developed to meet these requirements. They reliably protect **against solid and liquid contaminants** and thus make a key contribution to **system availability and process safety** - both in vehicles and in the refueling infrastructure.

Typical applications

- **Vehicle-side (on-board filtration)**
  Filtration directly in the vehicle - e.g. in commercial vehicles, buses or cars with hydrogen or CNG drives. Protection of high-pressure lines, sensors and injection valves.

- **Fueling station infrastructure**
  Dispensers, storage tanks or compressors - wherever H_2 or CNG is moved under high pressure. Filters prevent particles and liquids from entering sensitive system components.

- **Industrial applications / test systems**
  High-pressure test benches, supply systems or line tests in industry and the OEM sector. Protection for complex systems and process-critical components.

System solutions from one source

In addition to our filter solutions, WEH offers a comprehensive range of components for hydrogen and natural gas applications - optimally matched for maximum safety and functionality:

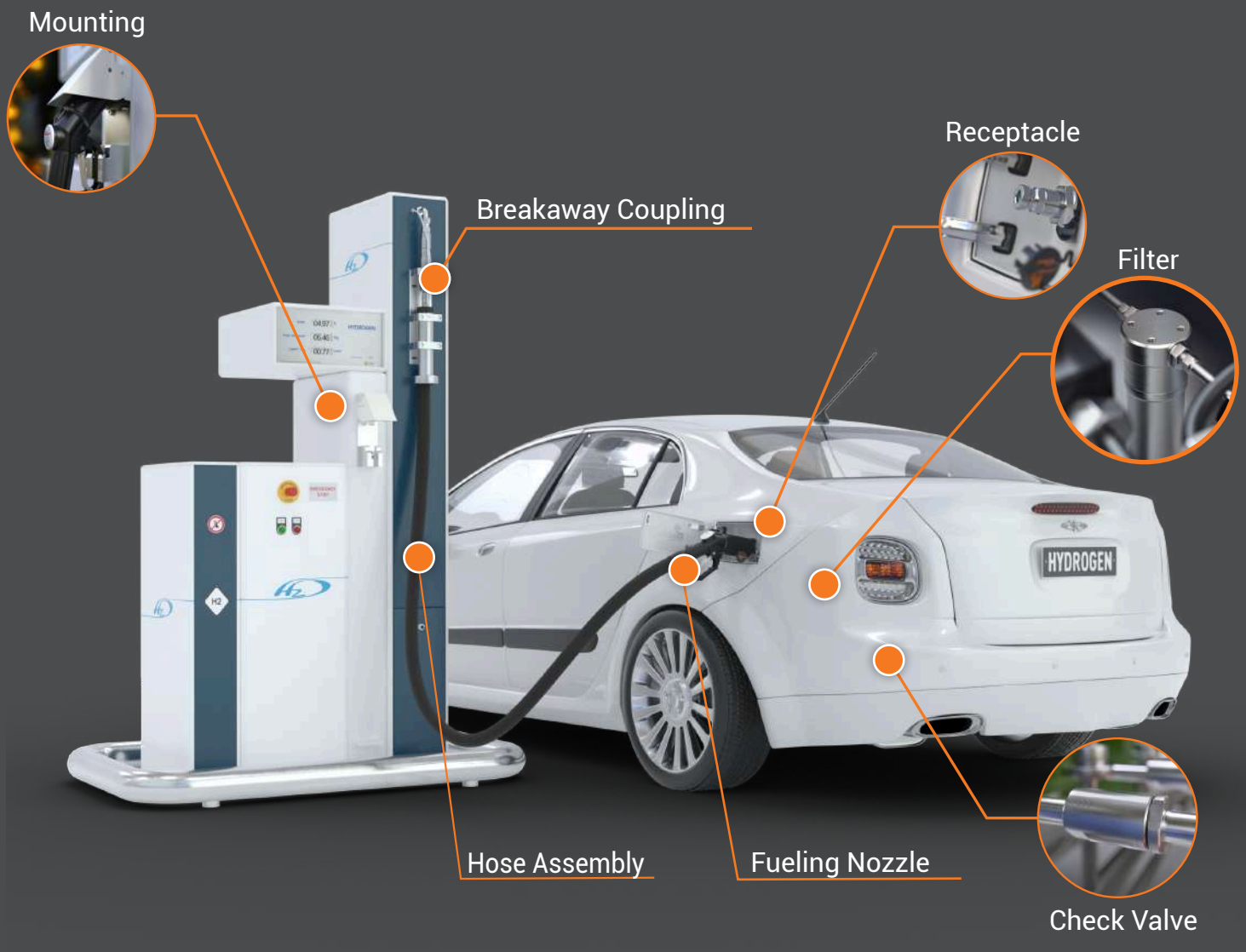
- **Fueling station**
- **Receptacle**
- **Breakaway coupling**
- **Hoses**
- **Check valve**

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Benefits
at a glance

- **Protection for high-pressure components**
  such as couplings, sensors and valves
- **Efficient separation**
  of particles, abrasion, oil mist and condensate
- **Maintains gas purity**
  Indispensable for hydrogen systems
- **Robust design for up to 490 bar**
  Ideal for H_2 and CNG applications
- **Corrosion-resistant & easy to maintain**
  for reliable continuous operation



» Filter TSF2 H_2

DESCRIPTION



Features
- For clean filtered hydrogen
- Filter insert can be cleaned
- For installation onboard H_2 vehicles and in H_2 fueling stations
- Also suitable as prefilter for inline breakaway couplings

When refueling hydrogen, it can often happen that hydrogen with dirt particles is fueled. These contaminated particles in the gas may cause damage to the sealing components. WEH therefore offers the WEH® TSF2 H_2 Filter for clean filtered hydrogen. Solid particles are reliably captured.
The filter element can be removed and can be reused after cleaning.

The WEH® TSF2 H_2 Filter is mainly used in fueling stations and plants.
To meet the different requirements of dispenser manufacturers, a wide variety of connection configurations are available - tube fitting / female thread on both ends or female and male thread.

For use as a prefilter with WEH® TSA2 H_2 Inline breakaway coupling, WEH offers a special design with male and female thread.

Application
Filter for installation in hydrogen vehicles and fueling stations.

TECHNICAL DATA

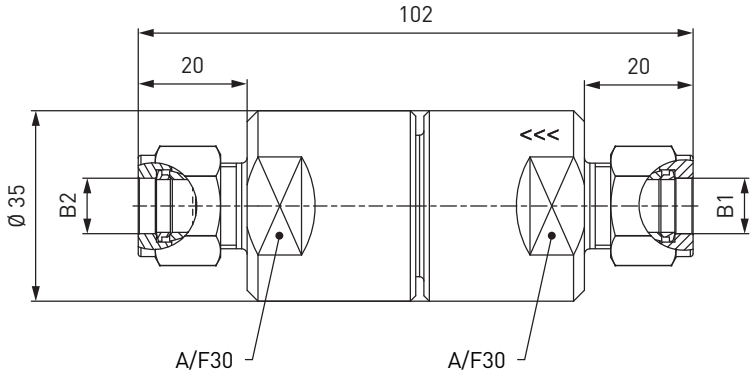
Characteristics	Basic version
Technical nominal size (TNW)	Depending on design
Nominal pressure	PN = 35 MPa
Max. allowable operating pressure	MAWP = 45 MPa (PS = 450 bar)
Temperature range	-40 °C up to +85 °C
Material	Corrosion resistant stainless steel
Sealing material	Hydrogen resistant
Filter element	40 µm or 20 µm
Design	Incl. fittings (only for filters with tube fitting)
Conformity / Tests / Approvals	On request

Other designs on request

» Filter **TSF2 H_2**

ORDERING | WEH® TSF2 H_2 Filter with tube fitting on both sides

approx. dimensions (mm)



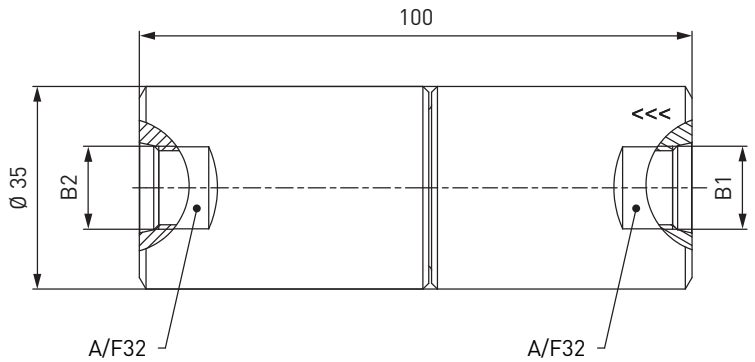


Part No.	Description	Filter (µm)	TNW	Pressure (MAWP)	B1	B2
C1-18487-X01	TSF2 H_2	40	8 mm	45 MPa	Rohr Ø 3/8"*	Rohr Ø 3/8"*
C1-36033-X01	TSF2 H_2	40	8 mm	45 MPa	Rohr Ø 10*	Rohr Ø 10*

* double ferrule fitting

ORDERING | WEH® TSF2 H_2 Filter with female thread on both sides

ca.-Maße (mm)





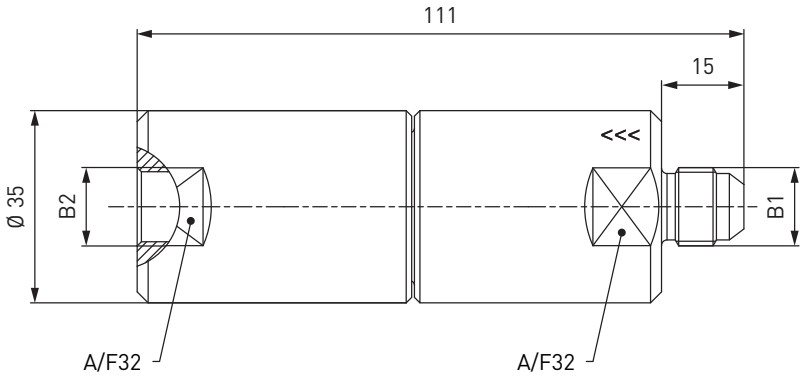
Part No.	Description	Filter (µm)	TNW	Pressure (MAWP)	B1 (female thread)	B2 (female thread)
C1-34576-X01	TSF2 H_2	40	8 mm	45 MPa	UNF 9/16"-18*	UNF 9/16"-18*

* acc. to SAE J1926-1

» Filter **TSF2 H_2**

ORDERING | WEH® TSF2 H_2 Filter with male and female thread (also suitable as prefilter for TSA2 H_2)

approx. dimensions (mm)





Part No.	Description	Filter (µm)	TNW	Pressure (MAWP)	B1 (male thread)	B2 (female thread)
C1-134710-X01	TSF2 H_2	40	8 mm	45 MPa	UNF 9/16"-18*	UNF 9/16"-18*
C1-134711-X01	TSF2 H_2	20	8 mm	45 MPa	UNF 9/16"-18*	UNF 9/16"-18*

* acc. to SAE J514, 37° cone

Other connection sizes and types (e.g. Cone and Thread Fittings or VOSS*Lok*[40]) on request.

» Filter **TSF2 H_2**

SPARE PARTS

Various parts are available as spares for the WEH® TSF2 H_2 Filter.

Part No.	Description
E69-9061	Wire filter insert 40 µm (incl. spring and o-ring)
W67754	Wire filter insert 20 µm (incl. spring and o-ring)

» Filter **TSF4 H_2**

DESCRIPTION



Features
- For clean filtered hydrogen
- Filter insert can be cleaned
- For installation onboard H_2 vehicles and in H_2 fueling stations

When refueling hydrogen, it can often happen that hydrogen with dirt particles is fueled. These contaminated particles in the gas may cause damage to the sealing components. WEH therefore offers the WEH® TSF4 H_2 Filter for clean filtered hydrogen. Solid particles are reliably captured.
The filter element can be removed and can be reused after cleaning.

The particle filter is specially designed for installation in vehicles, but can also be installed in fueling stations and plants, depending on the application.

Application
Filter for installation in hydrogen vehicles and fueling stations.

TECHNICAL DATA

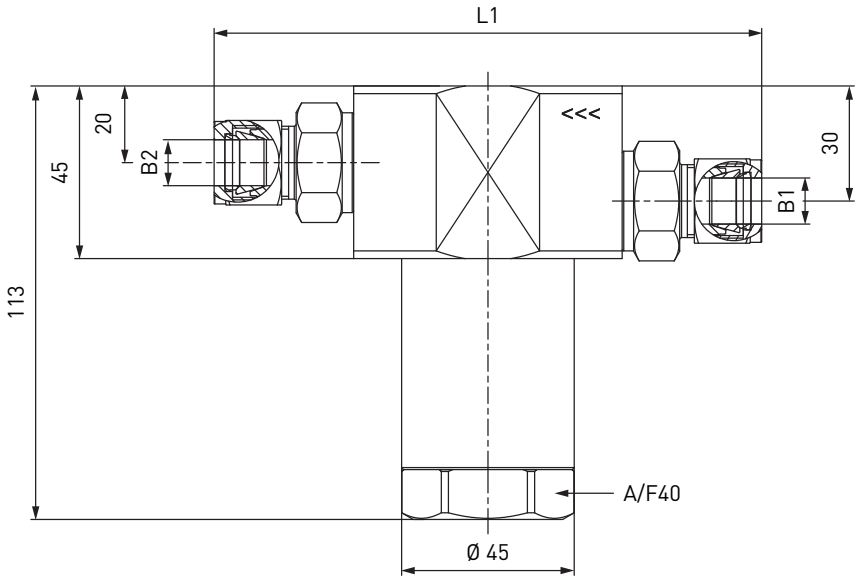
Characteristics	Basic version
Technical nominal size (TNW)	10 mm
Nominal pressure	PN = 35 MPa
Max. allowable operating pressure	Depending on design
Temperature range	-40 °C up to +85 °C
Material	Corrosion resistant stainless steel
Sealing material	Hydrogen resistant
Filter element	10 µm
Design	Incl. fittings (only for filters with tube fitting)
Conformity / Tests / Approvals	On request

Other designs on request

» Filter **TSF4 H_2**

ORDERING | WEH® TSF4 H_2 T-Filter with tube fitting on both sides

approx. dimensions (mm)





Part No.	Description	Filter (µm)	TNW	Pressure (MAWP)	B1	B2	L1
C1-58026-X01	TSF4 H_2	10	10 mm	45 MPa	Tube Ø 12*	Tube Ø 12*	145
C1-73987-X01	TSF4 H_2	10	10 mm	35 MPa	Tube Ø 1/2"*	Tube Ø 1/2"*	145

* double ferrule fitting

Other connection sizes and types (e.g. Cone and Thread Fittings or VOSS*Lok*^{40}) on request.

SPARE PARTS

Various parts are available as spares for the WEH® TSF4 H_2 Filter.

Part No.	Description
W9063	Wire filter insert 10 µm
E51-47589	O-ring for filter insert (only T-filter)

» Coalescing filter **TSF2 H_2**

DESCRIPTION



Features
- Fine filter with high particle retention capacity (efficiency of approx. 99.9 % > 0.3 µm)
- Operating pressure (PS) up to 490 bar
- For installation in H2 vehicles and fueling stations
- Protection of critical components in the fuel system
- Wear resistant and corrosion resistant
- Ease of maintenance

When refueling with hydrogen, clean, filtered gases are a basic prerequisite for the proper functioning of the vehicle and fueling station components. The WEH® TSF2 H_2 coalescence filter cleans the gas flow of contaminants.

Coalescence filters are even more effective than normal particle filters due to their high particle retention capacity. more effective. The TSF2 H_2 filters the gas flow and reliably and safely removes the contaminants contained in the gas, such as oil, water aerosols and dirt particles. These impurities are separated by the coalescence filter. The hydrogen flows through the filter, whereby the slower-flowing components such as oil, water and other liquid aerosols form droplets, sink to the bottom of the filter and can be removed via the oil outlet.

The WEH® TSF2 H_2 is easy to maintain and can also be retrofitted in vehicles and fueling stations.

Application
Coalescence filters for installation in hydrogen vehicles and fueling stations.

TECHNICAL DATA

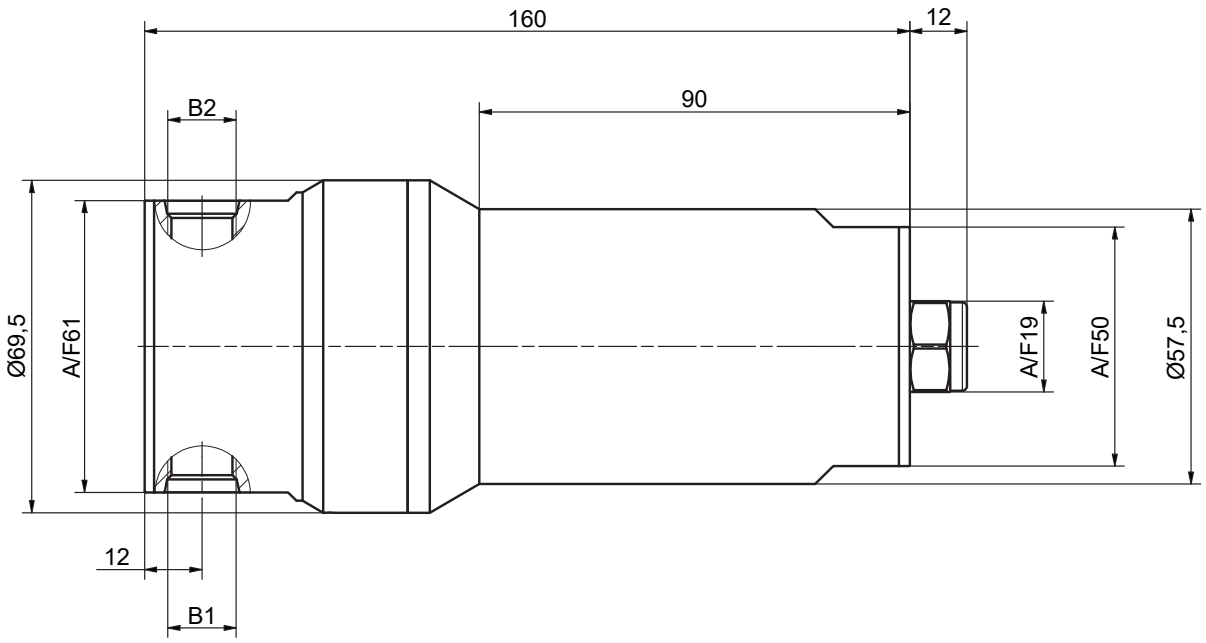
Characteristics	Basic version
Technical nominal size (TNW)	8 mm
Nominal pressure	PN = 35 MPa
Max. allowable operating pressure	PS (MAWP) depending on design
Temperature range	-40 °C up to +85 °C
Material	Corrosion resistant
Sealing material	Hydrogen resistant
Filter element	< 0,3 µm
Design	Incl. Plug
Conformity / Test / Approvals	e 1 00 0004 (Regulation (EG) Nr. 79/2009)

Other designs on request

» Coalescing filter **TSF2 H_2**

ORDERING | Coalescing filter WEH® TSF2 H_2 with filter cartridge Ø 38 mm

approx. dimensions (mm)





Part No.	Description	Pressure (MAWP)	B1 (female thread)	B2 (female thread)
C1-181946	TSF2 H_2 (EG79)	43.75 MPa	UNF 9/16"-18*	UNF 9/16"-18*
C1-181949	TSF2 H_2	49 MPa	UNF 9/16"-18*	UNF 9/16"-18*

* according to SAE J1926-1

Other connections (e.g. Cone and Thread Fittings or VOSSLok40) on request.

SPARE PARTS / ACCESSORIES

Various spare parts are available for the WEH® TSF2 H_2 coalescence filter.

Plug

Plug with matching O-ring (made of polyurethane) to close the oil outlet "Q" (filter end).



Part No.	Description	Connection (male thread)
E69-93336	Plug with O-Ring	UNF 9/16"-18*

* according to SAE J1926-1

Spare parts set

Suitable for coalescence filter TSF2 H_2.

Part No.	Description
C1-168192	Spare parts set consisting of filter cartridge Ø 38 mm, support ring and 2 O-rings

Screw-in fittings for connections B1/B2

Part No.	Description
E69-135408	Swagelok UNF 9/16*-18* AG RV Ø10mm
E69-155000	Swagelok UNF 9/16*-18* AG RV Ø8mm

* according to SAE J1926-1
Tightening torque 45 Nm + 10%

» Filter TSF1 CNG

DESCRIPTION



Features
- For CNG free of impurities
- Prefilter for fuelling nozzles
- For installation between fuelling nozzle and filling hose

Contaminants in the gas flow can enter the vehicle's storage tank during refuelling. These dirt particles in the natural gas fuel may cause damage to the sealing components. WEH, therefore, offers CNG filter for clean natural gas. Solid particles are captured reliably.
The TSF1 CNG filter is used for fuelling stations and dispensers as well as onboard CNG powered vehicles. The filter is mainly installed as prefilter in the media inlet between fuelling nozzle and filling hose.

Application
Filter for installation as prefilter between fuelling nozzle and filling hose.
Only use filters with ECE approval for fitment in vehicles!

TECHNICAL DATA

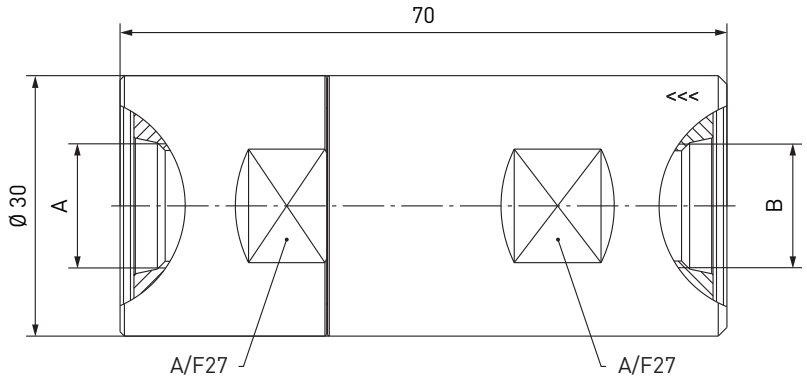
Characteristics	Basic version
Technical nominal size (TNW)	8 mm
Nominal pressure	PN = 200 bar (3,000 psi) | PN = 250 bar (3,600 psi)
Max. allowable operating pressure	PS = 26 bar (ECE) (370 psi) | PS = 315 bar (4,500 psi)
Temperature range	-40°C up to +120°C (-40°F up to +248°F)
Material	Corrosion resistant stainless steel
Sealing material	Natural gas resistant
Filter element	50 resp. 40 micron, depending on design
Conformity / Test / Approvals	ECE R110

Other designs on request

» Filter TSF1 CNG

ORDERING | Filter TSF1 CNG (50 micron) with internal thread on both sides

approx. dimensions (mm)



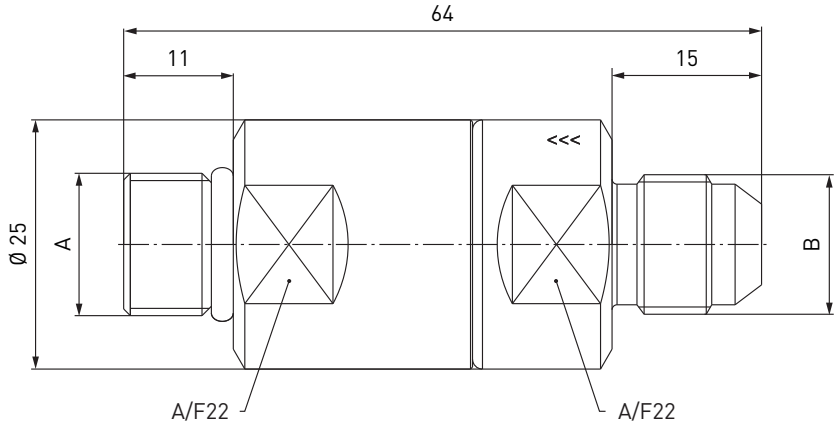


Part No.	Description	TNW	Pressure (PS)	Inlet B (internal thread)	Outlet A (internal thread)
C1-66532**	TSF1 CNG (ECE)	8 mm	260 bar / 3,700 psi	UNF 9/16“-18*	UNF 9/16“-18*

* acc. to SAE J1926
** The filter element can be removed and is re-usable after having been cleaned

ORDERING | Filter TSF1 CNG (40 micron) with external thread on both sides

approx. dimensions (mm)





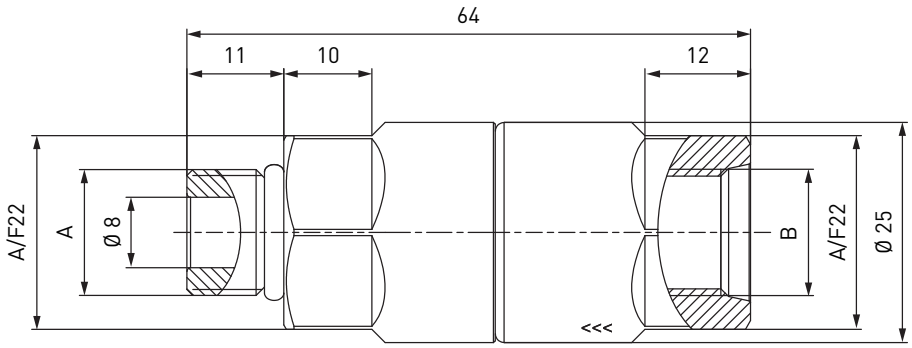
Part No.	Description	TNW	Pressure (PS)	Inlet B (external thread)	Outlet A (external thread)
C1-106854-X01	TSF1 CNG	8 mm	260 bar / 3,700 psi	UNF 9/16“-18*	UNF 9/16“-18**

* acc. to SAE J514, 37°
** acc. to SAE J1926-2

» Filter TSF1 CNG

ORDERING | Filter TSF1 CNG (40 micron) with internal thread and external thread

approx. dimensions (mm)





Part No.	Description	TNW	Pressure (PS)	Inlet B (internal thread)	Outlet A (external thread)
C1-94070-X01	TSF1 CNG	8 mm	315 bar /4,500 psi	UNF 9/16“-18*	UNF 9/16“-18*
C1-100700-X01	TSF1 CNG	8 mm	315 bar /4,500 psi	UNF 9/16“-18* LH	UNF 9/16“-18* LH

* acc. to SAE J1926-2

» Filter TSF1 CNG

SPARE PARTS

Various parts are available as spares for type TSF1 CNG:

Part No.	Description
C1-131848	Maintenance set consisting of o-ring, filter element and back-up ring (for C1-66532)

» Filter **TSF2 CNG**

DESCRIPTION



Features
- For CNG free of impurities
- Filter insert can be cleaned
- For installation onboard CNG vehicles and in fuelling stations

When refueling natural gas, it can often happen that natural gas contaminated with particles is refueled. The dirt particles in the gas can damage seals. WEH therefore offers
natural gas filters for cleanly filtered natural gas. Solid particles are reliably captured.
The filter element can be removed and reused after cleaning.
The TSF2 CNG is mainly used in filling stations and plants.

Application
Filters for installation in CNG vehicles and filling stations.
Only ECE-approved filters may be used for installation in road-legal vehicles.

TECHNICAL DATA

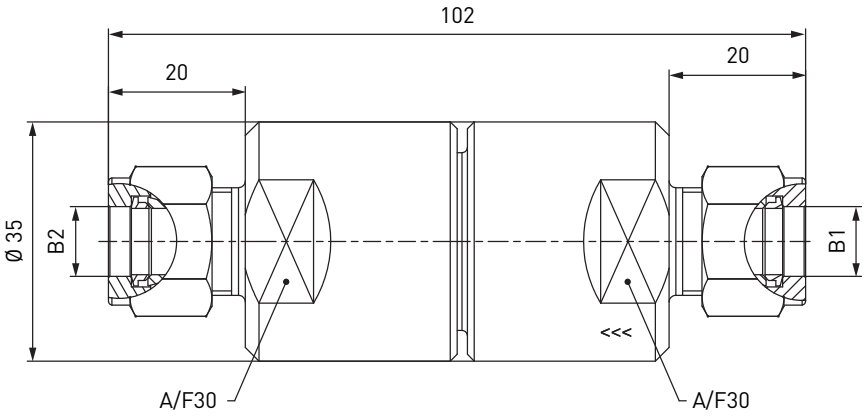
Characteristics	Basic version
Technical nominal size (TNW)	Depending on design
Nominal pressure	PN = 200 bar (2,900 psi)
Max. allowable operating pressure	PS = 300 bar (4,300 psi)
Temperature range	-40°C up to +85°C
Material	Rust-resistant stainless steel
Sealing material	Natural gas resistant
Filter element	40 µm
Execution	Incl. fitting parts (for pipe fitting)
Conformity / Test / Approvals	ECE approval on request

Other designs on request

» Filter **TSF2 CNG**

ORDERING | WEH® TSF2 CNG filter (40 µm) with pipe fitting on both sides

approx. dimensions (mm)



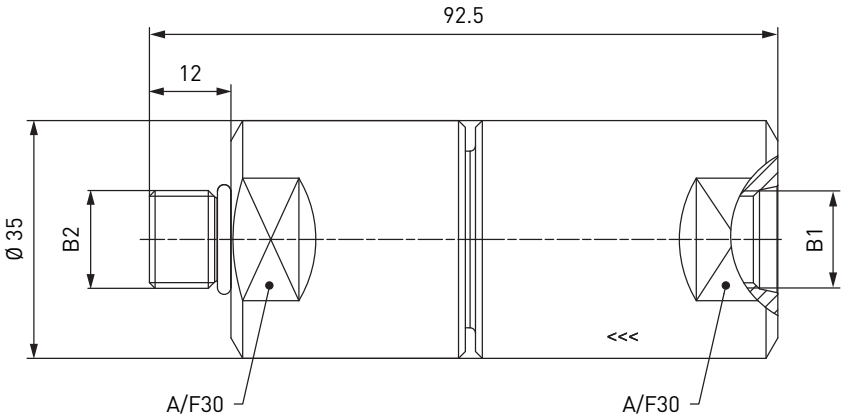


Part No.	Description	TNW	Pressure (PS)	B1	B2
C1-106736-X01	TSF2 CNG	5 mm	300 bar / 4,300 psi	Rohr Ø 6*	Rohr Ø 6*
C1-106746-X01	TSF2 CNG	6 mm	300 bar / 4,300 psi	Rohr Ø 8*	Rohr Ø 8*
On request	TSF2 CNG	8 mm	300 bar / 4,300 psi	Rohr Ø 10*	Rohr Ø 10*

* double ferrule fitting

ORDERING | WEH® TSF2 CNG filter (40 µm) with internal thread and external thread

approx. dimensions (mm)





Part No.	Description	TNW	Pressure (PS)	B1	B2
C1-166464	TSF2 CNG	8 mm	300 bar / 4,300 psi	UNF 9/16“-18* IG	UNF 9/16“-18* AG

* according to SAE J1926-1

SPARE PARTS

The following spare parts are available for the WEH® TSF2 CNG filter:

Part No.	Description
E69-9061	Wire filter insert 40 µm (incl. spring and O-ring)

» Filter **TSF4 CNG**

DESCRIPTION



Features
- For CNG free of impurities
- Filter insert can be cleaned
- For installation onboard CNG vehicles and in fuelling stations

Contaminants in the gas flow can enter the vehicle's storage tank during refuelling. These dirt particles in the natural gas fuel may cause damage to the sealing components. WEH, therefore, offers CNG filter for clean natural gas. Solid particles are captured reliably.
The filter element can be removed and is re-usable after having been cleaned.
The TSF4 CNG filter is mainly used for onboard CNG powered vehicles, but can also be used for fuelling stations and dispensers.
Type TSF4 CNG round filter is available with tube fitting or internal thread on both sides or external and internal thread.

TSF4 CNG T-filter has been specially designed for use in CNG buses and trucks. The filter can be removed for cleaning purposes without tedious unscrewing of the media lines.



T-filter TSF4 CNG

Application
Filter for installation onboard CNG vehicles and in fuelling stations.
Only use filters with ECE approval for fitment in vehicles!

TECHNICAL DATA

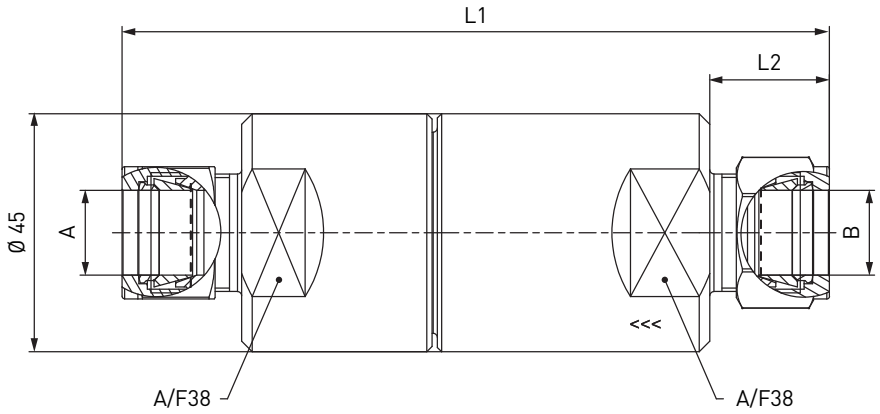
Characteristics	Basic version
Technical nominal size (TNW)	Depending on design
Nominal pressure	PN = 200 bar (3,000 psi)
Max. allowable operating pressure	Depending on design
Temperature range	-40°C up to +120°C (-40°F up to +248°F)
Material	Corrosion resistant stainless steel
Sealing material	Natural gas resistant
Filter element	40 resp. 10 micron, depending on design
Design	Incl. fittings (only for filters with tube fitting)
Registration	E1 110R-000017 (ECE)

Other designs on request

» Filter **TSF4 CNG**

ORDERING | Round filter TSF4 CNG (40 micron) with tube fitting on both sides

approx. dimensions (mm)



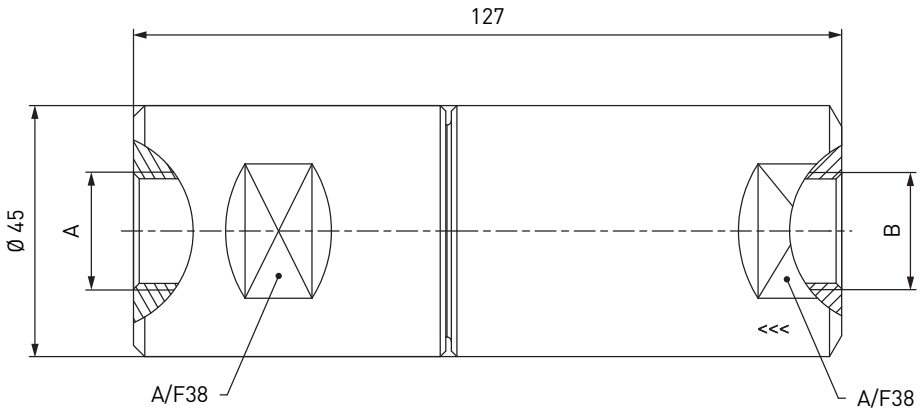


Part No.	Description	TNW	Pressure (PS)	Inlet B	Outlet A	L1	L2
C1-106765-X01	TSF4 CNG	8 mm	300 bar / 4,300 psi	Tube Ø 10*	Tube Ø 10*	129	20
On request	TSF4 CNG	10 mm	300 bar / 4,300 psi	Tube Ø 12*	Tube Ø 12*	133	22
C1-16843-X01	TSF4 CNG	12 mm	300 bar / 4,300 psi	Tube Ø 16*	Tube Ø 16*	134	23

* double ferrule fitting

ORDERING | Round filter TSF4 CNG (40 micron) with internal thread on both sides

approx. dimensions (mm)



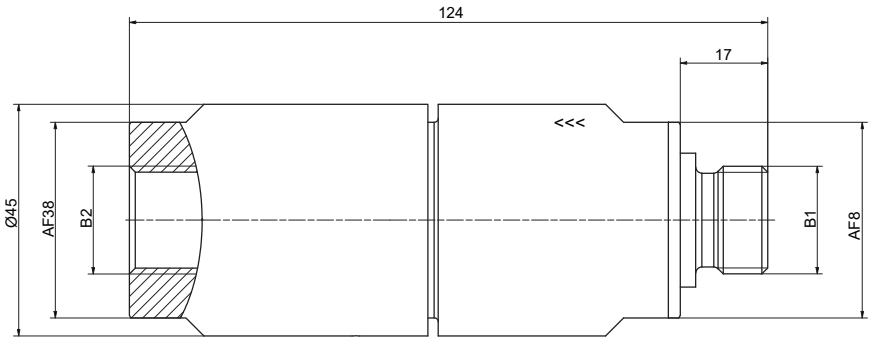


Part No.	Description	TNW	Pressure (PS)	Inlet B (internal thread)	Outlet A (internal thread)
C1-50371-X01	TSF4 CNG	12 mm	300 bar / 4,300 psi	G1/2"	G1/2"

» Filter **TSF4 CNG**

ORDERING | Round filter TSF4 CNG (40 micron) with external and internal thread

approx. dimensions (mm)

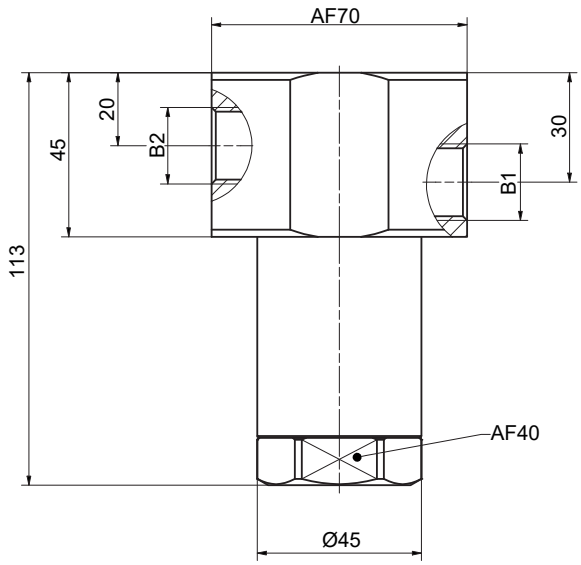




Part No.	Description	TNW	Pressure (PS)	Inlet B (external thread)	Outlet A (internal thread)
C1-188984	TSF4 CNG	12 mm	300 bar / 4,300 psi	G1/2"	G1/2"

ORDERING | T-filter TSF4 CNG (40 micron) with internal thread on both sides

approx. dimensions (mm)



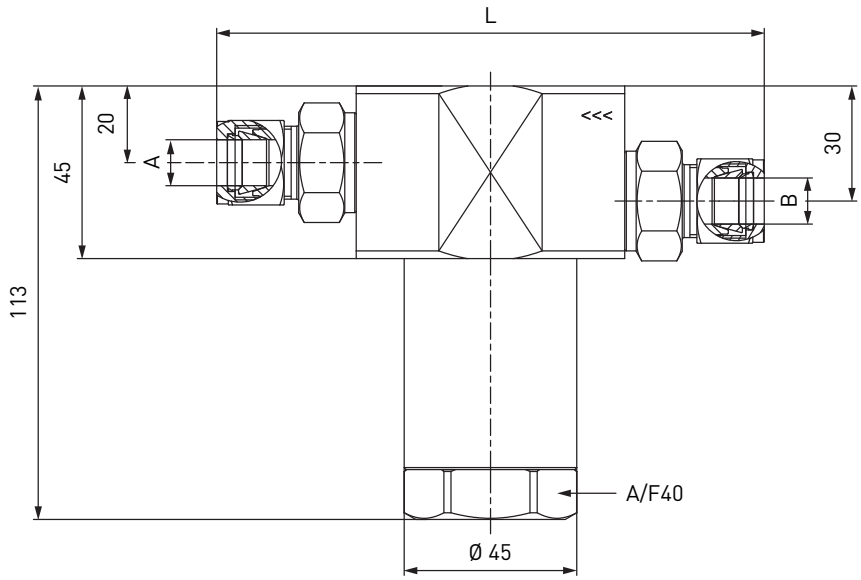


Part No.	Description	TNW	Pressure (PS)	Inlet B (internal thread)	Outlet A (internal thread)
C1-83168	TSF4 CNG (ECE)	12 mm	260 bar / 3,700 psi	G1/2"	G1/2"

» Filter **TSF4 CNG**

ORDERING | T-filter TSF4 CNG with tube fitting on both sides

approx. dimensions (mm)





Part No.	Description	Filter (micron)	TNW	Pressure (PS)	Inlet B	Outlet A	L
C1-54023	TSF4 CNG (ECE)	10	8 mm	200 bar / 3,000 psi	Tube Ø 10*	Tube Ø 10*	140
C1-86825	TSF4 CNG (ECE)	10	10 mm	200 bar / 3,000 psi	Tube Ø 12*	Tube Ø 12*	143
C1-106811	TSF4 CNG (ECE)	10	12 mm	200 bar / 3,000 psi	Tube Ø 1/2"*	Tube Ø 1/2"*	144
C1-106812	TSF4 CNG (ECE)	40	12 mm	200 bar / 3,000 psi	Tube Ø 16*	Tube Ø 16*	144
C1-51178-X01	TSF4 CNG	10	12 mm	200 bar / 3,000 psi	Tube Ø 16*	Tube Ø 16*	144

* double ferrule fitting

SPARE PARTS

Various parts are available as spares for type TSF4 CNG:

Part No.	Description
E69-9062	Wire filter insert 40 micron (incl. spring and o-ring)
E69-9063	Wire filter insert 10 micron (incl. spring and o-ring)
E51-47589	O-ring for filter insert (only T-filter)

» Filter **TSF5 CNG**

DESCRIPTION



Features
- For CNG free of impurities
- Filter insert can be cleaned
- Prefilter for inline breakaways
- For installation between inline breakaway and filling hose

Contaminants in the gas flow can enter the vehicle's storage tank during refuelling. These dirt particles in the natural gas fuel may cause damage to the sealing components. WEH, therefore, offers CNG filter for clean natural gas. Solid particles are captured reliably.
The TSF5 CNG filter is used for fuelling stations as well as for dispensers. The filter is mainly installed as prefilter in the media inlet between inline breakaway coupling and filling hose.

Application
Filter for installation as prefilter between inline breakaway coupling and filling hose.

TECHNICAL DATA

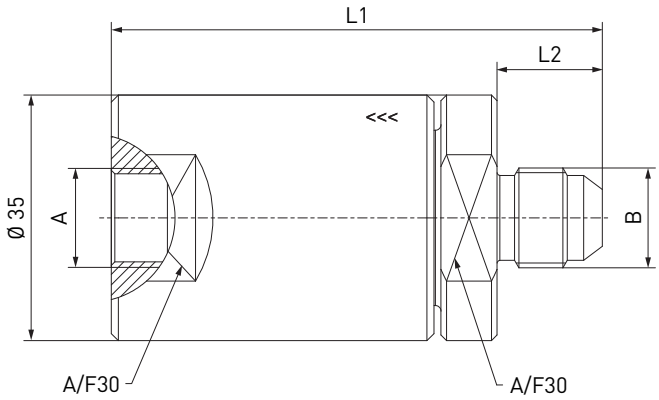
Characteristics	Basic version
Technical nominal size (TNW)	Depending on design
Nominal pressure	PN = 200 bar (3,000 psi) PN = 250 bar (3,600 psi)
Max. allowable operating pressure	PS = 300 bar (4,300 psi) PS = 350 bar (5,000 psi)
Temperature range	-40 °C up to +120 °C (-40 °F up to +185 °F)
Material	Corrosion resistant stainless steel
Sealing material	Natural gas resistant
Filter element	50 micron

Other designs on request

» Filter **TSF5 CNG**

ORDERING | Filter TSF5 CNG (50 micron) with external and internal thread

approx. dimensions (mm)





Part No.	Description	TNW	Pressure (PS)	Inlet B (external thread)	Outlet A (internal thread)	L1	L2
C1-83120-X01	TSF5 CNG	8 mm	300 bar / 4,300 psi	UNF 9/16"-18*	UNF 9/16"-18*	70	15
C1-102491-X01	TSF5 CNG	8 mm	350 bar / 5,000 psi	UNF 9/16"-18*	UNF 9/16"-18*	70	15
C1-105923-X01	TSF5 CNG	12 mm	300 bar / 4,300 psi	UNF 7/8"-14*	UNF 7/8"-14*	75	19.5

* acc. to SAE J514, 37°

SPARE PARTS

Various parts are available as spares for type TSF5 CNG:

Part No.	Description
E50-252S568	O-ring for UNF 9/16"-18* external thread
E51-91526	O-ring for UNF 7/8"-14* external thread
E55-247A	Back-up ring
E80-31704	Filter element

* acc. to SAE J514, 37°

» Coalescing filter **TSF2 CNG**

DESCRIPTION



Features
- Fine filter with high particle removal efficiency (efficiency of approx. 99.9% > 0.3 micron)
- For installation onboard CNG vehicles and in fuelling stations
- Protection of critical components in the fuel system
- Laterally offset flow possible
- Aluminium construction
- Ease of maintenance

Clean, filtered gases are essential to guarantee the proper function of components for vehicles and fuelling stations when refuelling with natural gas. The WEH® TSF2 CNG coalescing filter was developed to remove particles from the gas flow. When filtering the gas flow, the coalescing filter reliably removes contaminants such as oil, water and dirt particles which are contained in the gas. This contamination is isolated by the coalescing filter. Natural gas flows through the filter, whereas contaminants such as oil, water and other aerosols coalesce, and drop into the sump of the filter, where they are separated into a drain port.
The filters are easy to maintain and can be installed onboard vehicles and in fuelling stations at any time.

Application
Coalescing filter for installation onboard CNG vehicles and in fuelling stations.
Only use filters with ECE approval for fitment in vehicles!

TECHNICAL DATA

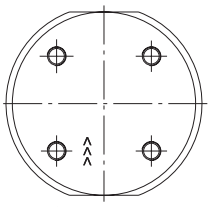
Characteristics	Basic version
Technical nominal size (TNW)	Depending on design
Nominal pressure	PN = 200 bar (3,000 psi)
Max. allowable operating pressure	PS = 260 bar (ECE) (3,700 psi)
Temperature range	-40 °C up to +120 °C (-40 °F up to +248 °F)
Material	Corrosion resistant Housing: aluminium
Sealing material	Natural gas resistant
Filter element	< 1 micron
Registration	E1 110R-000189 (ECE)

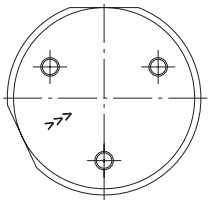
Other designs on request

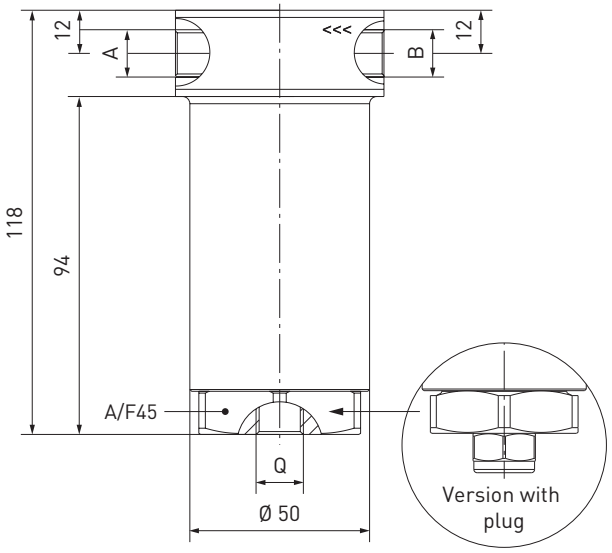
» Coalescing filter **TSF2 CNG**

ORDERING | Coalescing filter TSF2 CNG with filter cartridge Ø 25.4 mm

approx. dimensions (mm)









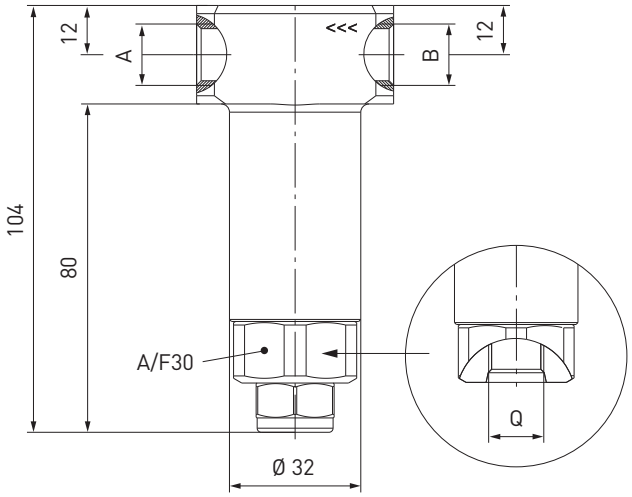
Part No.	Description	TNW	Pressure (PS)	Inlet B (internal thread)	Outlet A (internal thread)	Drain port Q (internal thread)
C1-82999**	TSF2 CNG (ECE)	4 mm	260 bar / 3,700 psi	NPT 1/4"	NPT 1/4"	UNF 9/16"-18*
C1-79766**	TSF2 CNG (ECE)	4 mm	260 bar / 3,700 psi	UNF 9/16"-18*	UNF 9/16"-18*	UNF 9/16"-18*
C1-81722	TSF2 CNG (ECE)	4 mm	260 bar / 3,700 psi	G1/4"	G1/4"	G1/4"
C1-81766	TSF2 CNG (ECE)	4 mm	260 bar / 3,700 psi	G1/4"	G1/4" flow direction 115° RH	G1/4"

* acc. to SAE J1926
** incl. plug with o-ring

» Coalescing filter **TSF2 CNG**

ORDERING | Coalescing filter TSF2 CNG with filter cartridge Ø 19.3 mm

approx. dimensions (mm)



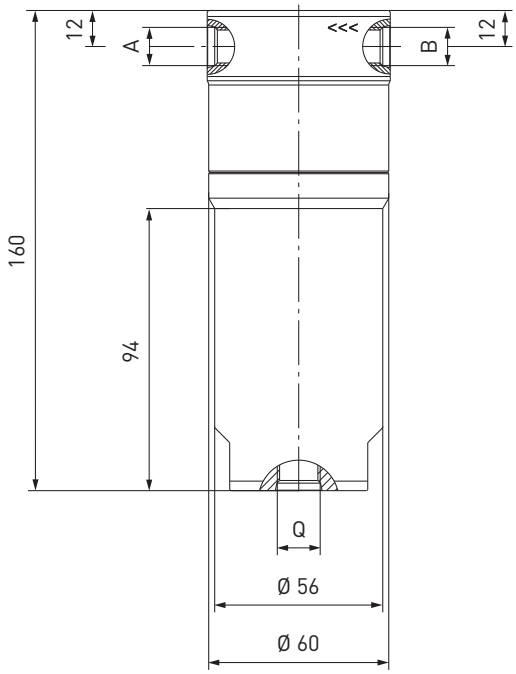


Part No.	Description	TNW	Pressure (PS)	Inlet B (internal thread)	Outlet A (internal thread)	Drain port Q (internal thread)
C1-89582**	TSF2 CNG (ECE)	4 mm	260 bar / 3,700 psi	NPT 1/4“	NPT 1/4“	UNF 9/16“-18*

* acc. to SAE J1926
** incl. plug with o-ring

ORDERING | Coalescing filter TSF2 CNG with filter cartridge Ø 38.0 mm

approx. dimensions (mm)





Part No.	Description	TNW	Pressure (PS)	Inlet B (internal thread)	Outlet A (internal thread)	Drain port Q (internal thread)
C1-89633	TSF2 CNG (ECE)	10 mm	260 bar / 3,700 psi	UNF 9/16“-18*	UNF 9/16“-18*	UNF 9/16“-18*

* acc. to SAE J1926

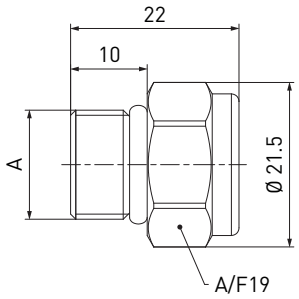
» Coalescing filter **TSF2 CNG**

ACCESSORIES

The following accessories are available for type TSF2 CNG coalescing filter:

Plug

Plug with o-ring for closing the drain port 'Q' (end of the filter).
Design: Plug incl. polyurethane o-ring





Part No.	Description	Connection A
E69-93336	Plug with o-ring	UNF 9/16"-18* external thread
E69-108334	Plug with o-ring	G1/4" external thread

* acc. to SAE J1926

Filter cartridge Ø 19.3

For type TSF2 CNG with filter cartridge Ø 19.3 mm
Design: outer Ø 19.3 mm, inner Ø 12.5 mm



Part No.	Description	Length
E69-89541	for C1-89582	40.0 mm

Filter cartridge Ø 25.4

For type TSF2 CNG with filter cartridge Ø 25.4 mm
Design: outer Ø 25.4 mm, inner Ø 12.5 mm



Part No.	Description	Length
E69-79770	for C1-82999, C1-81766, C1-81722, C1-79766	56.0 mm

Filter cartridge Ø 38.0

For type TSF2 CNG with filter cartridge Ø 38.0 mm
Design: outer Ø 38.0 mm, inner Ø 22.5 mm



Part No.	Description	Length
E69-89626	for C1-89633	90.0 mm

» Technical Appendix

Definitions

Pressure specifications	(all pressure specifications are to be understood as overpressure, unless otherwise stated)	
PN	Nominal pressure	Nominal pressure after temperature compensation at 15 °C (59 °F)
PS	Max. allowable operating pressure	Maximum allowable operating pressure acc. to Pressure Equipment Directive 2014/68/EU, Article 2 paragraph 8
PT	Hydrostatic test pressure	Hydrostatic test pressure acc. to Pressure Equipment Directive 2014/68/EU, Annex I no. 7.4
PP	Pilot pessure	Actuation pressure for hydraulic and pneumatic components
PC	Cracking pressure	Pressure at which the check valve opens and the first indication of flow occurs
WP	Working pressure	'Working pressure' means the maximum pressure to which a component is designed to be subjected to and which is the basis for determining the strength of the component under consideration
MAWP	Max. allowable working pressure	Max. allowable operating pressure at which the weakest point of the system or the vessel (e.g. cylinder valve) can operate at a certain temperature during normal operation
Dimensions		
L1, L2, L3 ...	Length specification	
D1, D2, D3 ...	Diameter specification	
A/F(1), A/F(2) ...	Wrench size specification	
Ports		
A / X	Customer-specific port (test piece, sample, cylinder valve, handwheel respiratory protective equipment)	
B1, B2, B3 ...	Media ports	
C1, C2, C3 ...	Gas recirculation ports	
P1, P2, P3 ...	Pilot pressure ports	
MA1, MA2 ...	Measuring ports	
Q	Drain port filter	
G	Mounting bores	
Others		
DN	PED-nominal size (DN)	Nominal size (DN) acc. to Pressure Equipment Directive 2014/68/EU, whereby the largest, pressurized diameter of the media or pilot pressure connections of the WEH Device (A, B1, B2, B3 or C1, C2, C3 and P1, P2, P3) which faces the customer´s pipe system, is relevant. Expressed by a rounded, dimensionless number, e. g. DN 25
TNW	Technical nominal size	The technical nominal size (formerly expressed by “effective diameter”) is the smallest diameter available for the media flow of the respective pressure device. Expressed by a number with unit, e. g. 12 mm
µm	Max. diameter of the filtered particle	
Kv	Is the discharge of water in m^3/h at a pressure drop of 1 bar (14.5 psi), acc. to DIN/EN 60534-2	
Cv	Is the discharge of water in gallons per minute at a pressure drop of 1 psi, acc. to DIN/EN 60534-2	
IR	Infrared data interface	
ENR	Exchangeable data interface (exchangeable nozzle receiver)	

» Technical Appendix

Definitions

Abbreviation	Definition
TS	Maximum allowable temperature acc. to Pressure Equipment Directive 2014/68/EU, Article 2 paragraph 9
Breakaway force	Is the force range, in which the breakaway releases
NC	Normally closed (initial position of shut-off valve)
NO	Normally open (initial position of shut-off valve)

Technical explanations

Term	Definition
Temperature range	Is the temperature range in which the WEH® Product can be used. If no explicit information on medium and ambient temperature is given, this temperature range applies to both medium and environment.
Media temperature range	Is the temperature range of the medium used, which can flow through the WEH® Product (may change depending on the time of measurement).
Ambient temperature range	Is the temperature range of the environment in which the WEH® Product can be used.
Leak rate	Is the maximum external leak rate, which the WEH® Product exhibits in delivery condition.
Internal leak rate	The internal leak rate depends, among other things, on type of application, medium and pressure difference on the WEH® Product. On request it can be specified more precisely.
Max. side load	Is the max. allowable sum of all external forces that may act on the device under intended use. **Note:** External forces can affect the life time of WEH® Products and can cause damage. Tensile and transverse loads as well as vibrations and pressure impacts need to be considered, e.g. by user side measures such as on site mountings and similar. Therefore, lateral forces such as whipping hoses or other equipment must be avoided. WEH® Products should be installed in such a way, that lateral forces which could lead to leakage or damage can not occur. Special applications require a special consultation before selecting the product.
Products with pneumatic actuation	The customer has to ensure there is adequate axial movement when pneumatically actuated WEH® Products are used in automated systems, see maximum side load. Ideally the products should be mounted with a floating joint or introduced individually to prevent the possibly existing clamping jaws getting blocked or jammed in the thread of the test piece.
Sealing material	On request the WEH® Product can be adapted to customer specific applications regarding to the sealing materials used. The clarification of the media compatibility and suitability of the adapted WEH® Product for the final application is always the responsibility of the end user.
Corrosion resistant	WEH® Products are designed for use in temperate climate zones - with low levels of humidity and salinity in the air. An accelerated formation of rust or corrosion may occur at or near the sea. Therefore, reduce the inspection interval recommended for normal use and send in the WEH® Product for maintenance immediately if you notice increased soot, rust or corrosion.
Storage / life time of components	There are certain requirements for every WEH® Product. 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.

» Technical Appendix

Further explanations

Subject	Definition
Technical data	Unless otherwise stated, the technical data in catalogs, data sheets and operating instructions are based on tests with nitrogen that are in the development phase or at the end of development. Leakage data are based on measurements with helium.
Intended use	The intended use of WEH® products can be found in the respective operating instructions. The following applications are generally excluded for all WEH® products, unless these are expressly permitted in the operating instructions: applications in the aerospace industry, e.g. for installation or use in or for the construction of aircraft, rocket propulsion systems, space probes, satellites, etc. shipping applications
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.
Explanation on the Pressure Equipment Directive	In general, WEH® Products with a maximum allowable operating pressure of more than 0.5 bar (PS) fall within the scope of application of the Pressure Equipment Directive 2014/68/EU, are generally classified as pressure accessories in accordance with Article 2 (5) of the same 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. For some products a different classification and/or categorisation is required or can be conducted on request. In these cases, if legally required, a conformity assessment procedure in accordance with Annex III of the Pressure Equipment Directive 2014/68/EU can and will also be conducted and the conformity can be declared by means of an EU Declaration of Conformity in accordance with Annex IV of the Pressure Equipment Directive 2014/68/EU. In these cases, the EU Declaration of Conformity is enclosed with the product.
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.

» Brochure data

This catalog was created diligently and on the basis of decades of experience.

All information/recommendations in this catalog are non-binding and are particularly subject to possible deviations or changes. For any binding information/recommendations, please refer to the verified information/recommendations in our individual orders. Particularly, due to the wide range of possible applications of WEH® Products and the unknown parameters and operating conditions linked to them, the accuracy and/or completeness of the information/recommendations in this catalog cannot be guaranteed with respect to certain individual cases. In doing so, we would like to refer once again to the information/recommendations provided in individual orders.

The application limits indicated in this catalog (e.g. for pressure, temperature, etc.) are generally theoretical values determined in a test environment. As the concrete operating conditions could differ, we cannot ensure that these values apply to a specific customer application. During the practical use, you should particularly consider that the mutual influence of operational parameters could result in changes of the maximum values. Especially, in case of any unusual operating conditions, please contact WEH before using any WEH® Products. We therefore strongly recommend that you also require any necessary binding information/recommendations to be included by us in the individual orders.

Furthermore, we point out that we cannot assume any warranty or accept any responsibility for printing errors, incomplete information or misinterpretations. Illustrations and/or images are particularly provided for illustrative purposes only and may differ in some details from the actual product. Moreover, dimensions and other technical details in this catalog are non-binding information and are provided for illustrative purposes only. The product's exact form and design result exclusively from the specific individual order. In particular, certain information/recommendations in the catalog only become integral part of the contract if they have been expressly contractually agreed.

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