

Type **TVR2**

WEH[®] Check valve

of stainless steel



General

DESCRIPTION



Features

- Stainless steel
- Extremely leak tight
- Seals are protected from the media flow
- Wear and corrosion resistant
- Low-noise opening and closing
- Low cracking pressure

High performance check valves for use with liquid and gaseous media

The seals are protected from the media flow thus minimizing the effect of dirt particles on the sealing components within the unit. The WEH® Check valves are constructed from high-grade materials achieving a very durable unit. The check valves are silent in use even under high flow requirements and offer low opening pressures with high sealing integrity. The high performance sealing system ensures that the WEH® TVR2 is suitable for applications with gaseous media.

WEH® TVR2 Check valves are equipped with a FKM seal as standard. Other sealing materials on request. It is the customer's responsibility to clarify the media compatibility.

WEH not only offer check valves with threaded connections but also with ferrule fittings, flanges, hose nozzles, nipples or custom designed cartridge valves, even for small quantities.

Application

Check valves for use with liquid and gaseous media.

The WEH® TVR2 Check valves can be used for a large range of applications in mechanical engineering and construction, chemical /pharmaceutical and food industry, materials-handling and medical technology etc.

OVERVIEW TYPES

WEH offer various types of TVR2 check valves:



TVR2 | Stainless steel check valves with double ferrule fitting on both sides



TVR2 | Stainless steel check valves with external thread on both sides



TVR2 | Stainless steel check valves with internal thread on both sides



TVR2 | Special solutions for stainless steel check valves, e.g. with external thread and internal thread

Technical data

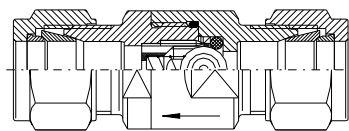
TECHNICAL DATA

Characteristics	Basic version	Options
Media inlet B1 / media outlet B2	Double ferrule fitting: tube Ø 6 - tube Ø 16 mm Internal thread: G1/8" - G1" External thread: G1/8" - G1"	Double ferrule fitting: up to max. tube Ø 50 mm on request Internal thread: up to max. G3" on request External thread: up to max. G3" on request
Nominal bore DN	3 up to 20 mm, acc. to design	Other nominal bores on request
Max. allowable operating pressure PS	Double ferrule fitting: 150 bar Internal thread: 250 bar External thread: 250 bar	Other pressures on request
Cracking pressure PC*	Acc. to design	Other cracking pressures on request
Temperature range	-20 °C up to max. +120 °C	Depending on version and application temperature from -45 °C up to max. +300 °C. Other temperature ranges on request
Leak rate	1 x 10 ⁻⁴ mbar x l/s	On request
Material	Stainless steel Up to DN 8 mm, some inner parts brass.	Other materials on request
Spring material	Stainless steel	Other materials on request
Sealing material	FKM	Other sealing materials on request
Lubricant	Krytox® GPL 202	On request
Sealing concept	Up to DN 6 mm ball sealing, larger dimensions cone sealing	On request

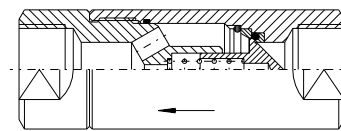
* Please note, that the cracking pressure values apply for horizontal mounting of the check valve. For other mounting directions, the values can differ.

Sealing types

Up to DN 6 mm ball sealing, larger dimensions cone sealing.



Ball seal construction



Cone seal construction

Flow values

Please find in the table below flow rates for various nominal bores of the WEH® TVR2 Stainless steel check valves.

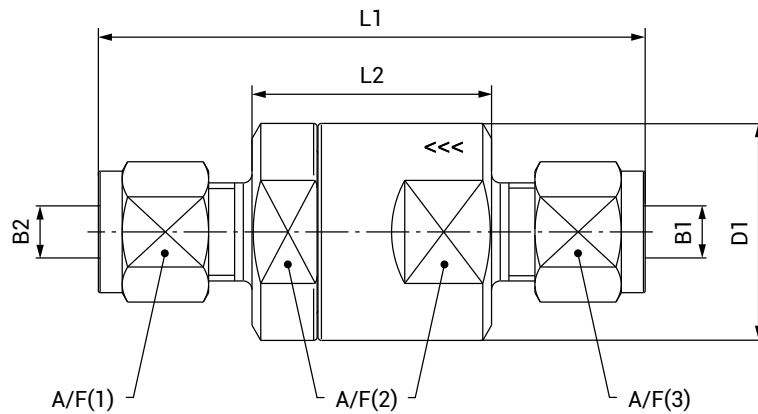
Nominal bore DN	Kv (Cv) Value	Nominal bore DN	Kv (Cv) Value
4 mm	0.2 (0.2)	14 mm	7.4 (8.6)
5 mm	0.4 (0.5)	16 mm	8.1 (9.4)
6 mm	0.6 (0.7)	20 mm	10.7 (12.4)
10 mm	3.0 (3.4)		

The flow curves were determined on the basis of the standards DIN/EN 60534-2 with water and refer to a cavitation free flow. The curves relate to unrestricted inlet and outlet.

Ordering

ORDERING | WEH® TVR2 Check valve with double ferrule fitting on both sides

approx. dimensions (mm)



Type ball sealing

Part No.	DN	B1	B2	PS (bar)	PC (bar)	L1	L2	D1	A/F(1) A/F(3)	A/F(2)
C20010-X1-X01	5	Tube Ø 6	Tube Ø 6	150	0.1	63.0	27.5	25.0	14	22
C20011-X1-X01	6	Tube Ø 8	Tube Ø 8	150	0.1	66.0	24.5	25.0	16	22
C20012-X01	6	Tube Ø 10	Tube Ø 10	150	0.1	65.0	24.5	25.0	19	22
C20013-X01	6	Tube Ø 12	Tube Ø 12	150	0.1	69.0	24.5	25.0	22	22

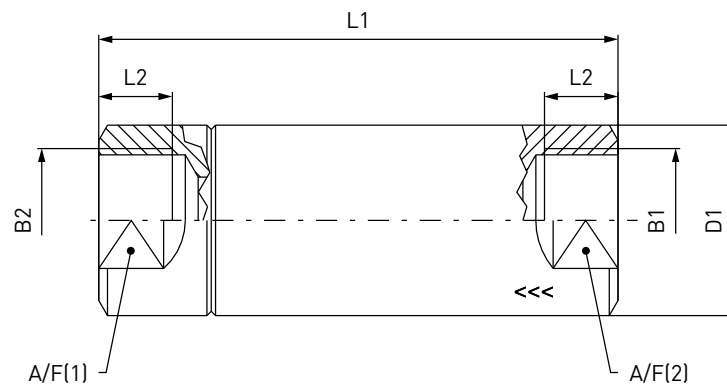
Type cone sealing

Part No.	DN	B1	B2	PS (bar)	PC (bar)	L1	L2	D1	A/F(1) A/F(3)	A/F(2)
C20014-X01	10	Tube Ø 12	Tube Ø 12	150	0.5	110.0	65.5	35.0	22	30
C20015-X1-X01	14	Tube Ø 16	Tube Ø 16	150	0.5	110.0	65.5	35.0	25	30

Ordering

ORDERING | WEH® TVR2 Check valve with internal thread on both sides (DIN EN ISO 228-1)

approx. dimensions (mm)



Type ball sealing

Part No.	DN	B1 (internal thread)	B2 (internal thread)	PS (bar)	PC (bar)	L1	L2	D1	A/F(1) / A/F(2)
C20000-X01	6	G1/8"	G1/8"	250	0.1	52.0	10.0	25.0	22
C20001/5-X01	6	G1/4"	G1/4"	250	0.1	52.0	12.5	25.0	22

Type cone sealing

Part No.	DN	B1 (internal thread)	B2 (internal thread)	PS (bar)	PC (bar)	L1	L2	D1	A/F(1) / A/F(2)
C20002-X2-X01	14	G3/8"	G3/8"	250	0.1	95.0	17.0	35.0	30
C20003-X2-X01	14	G1/2"	G1/2"	250	0.5	95.0	17.0	35.0	30
C20004-X2-X01	16	G3/4"	G3/4"	250	0.5	110.0	17.0	39.0	34
C20005/1-X01	20	G1"	G1"	250	1.0	120.0	18.0	48.0	41

ORDERING | WEH® TVR2 Mini check valve with internal thread on both sides (DIN EN ISO 228-1)

approx. dimensions (mm)

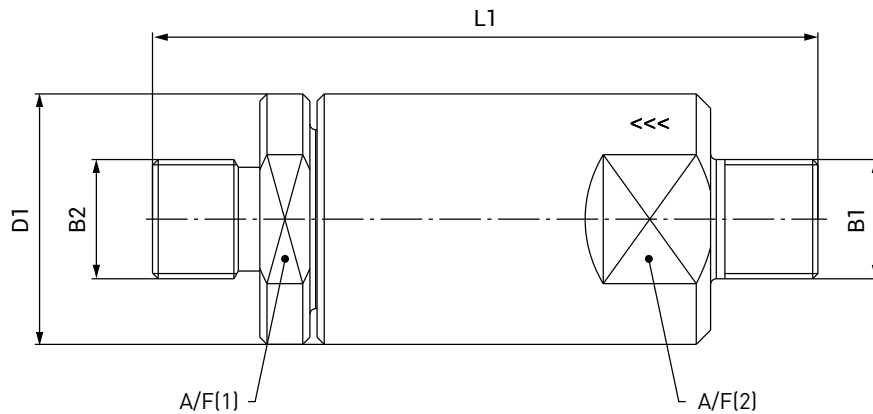
Part No.	DN	B1 (internal thread)	B2 (internal thread)	PS (bar)	PC (bar)	L1	L2	D1	A/F(1) / A/F(2)
C1-52584	3	G1/8"	G1/8"	100	0.2	45.0	10.5	15.0	13
C1-98954*	4	G1/4"	G1/4"	100	0.1	45.0	11.0	18.0	16

* C1-95705 for applications with ozone

Ordering

ORDERING | WEH® TVR2 Check valve with external thread on both sides (DIN EN ISO 228-1)

approx. dimensions (mm)



Type ball sealing

Part No.	DN	B1 (external thread)	B2 (external thread)	PS (bar)	PC (bar)	L1	D1	A/F(1) / A/F(2)
C20201	3	G1/8"	G1/8"	250	0.1	52.0	25.0	22
C20202-X01	5	G1/4"	G1/4"	150	0.1	52.0	25.0	22

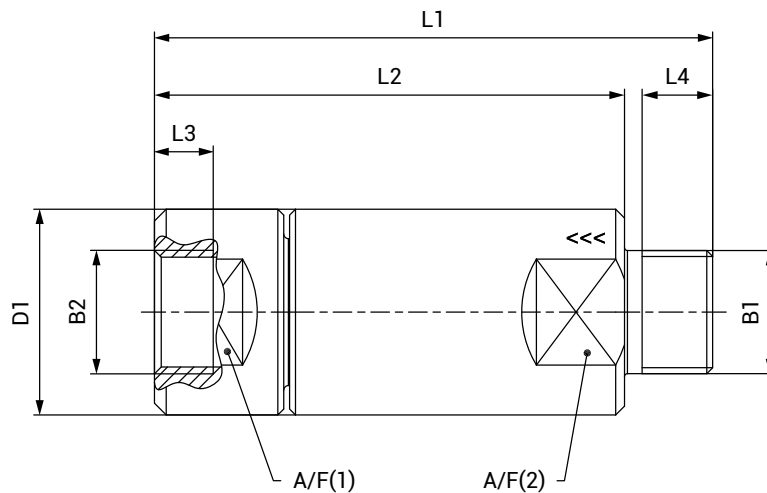
Type cone sealing

Part No.	DN	B1 (external thread)	B2 (external thread)	PS (bar)	PC (bar)	L1	D1	A/F(1) / A/F(2)
C20203	10	G3/8"	G3/8"	250	0.1	93.0	35.0	30
C20204-X01	14	G1/2"	G1/2"	250	0.5	95.0	35.0	30
C20205-X01	16	G3/4"	G3/4"	250	0.5	110.0	39.0	34
C20206	20	G1"	G1"	250	1.0	124.0	48.0	41

Ordering

ORDERING | WEH® TVR2 Check valve with external thread and internal thread (DIN EN ISO 228-1)

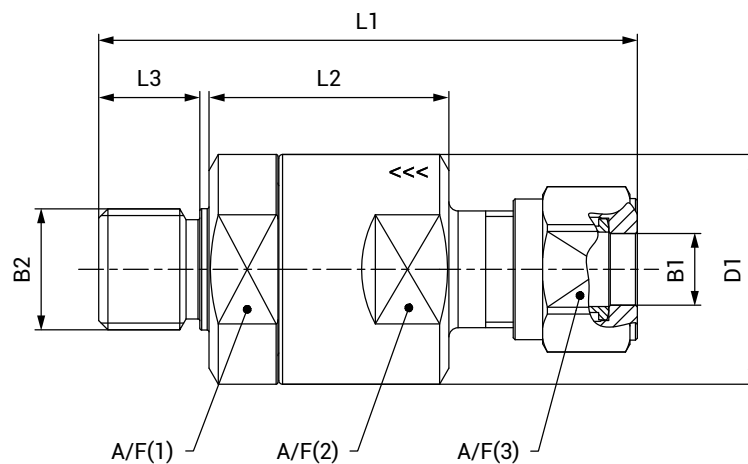
approx. dimensions (mm)



Part No.	DN	B1 (external thread)	B2 (internal thread)	PS (bar)	PC (bar)	L1	L2	L3	L4	D1	A/F(1) / A/F(2)
C1-95696-X01	14	G1/2"	G1/2"	250	0.1	95.0	80.0	17.0	12.0	35.0	30

ORDERING | WEH® TVR2 Check valve with double ferrule fitting and external thread

approx. dimensions (mm)



Part No.	DN	B1	B2 (external thread)	PS (bar)	PC (bar)	L1	L2	L3	D1	SW(1) / SW(2)	SW(3)
C1-81108	6	Tube Ø 8	G1/4"	150	0.07	58.5	26.0	11.0	25.0	22	16

Other connector sizes are available on request.

The following combinations are also possible:

- double ferrule fitting / internal thread
- internal thread / external thread
- internal thread / double ferrule fitting
- external thread / double ferrule fitting

Required information for request / ordering see page 5, catalogue no. 45.

Other products

OTHER PRODUCTS

You will find more products in our current catalogue no. 45



Further information on our homepage
www.weh.com

Illustrations

The illustrations and/or images used in this 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.

Abbreviations/Definition

Explanation of abbreviations see technical appendix in the catalogue or www.weh.com

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). You alone are responsible for the selection of WEH® Products and their configuration according to the requirements of your system. In doing so, please particularly consider your intended use, your performance data, your material compatibility, your system concept and your system limits as well as 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. 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

These WEH® Products are generally and exclusively classified as pressure accessories for piping in accordance with Article 2 (5) of the Pressure Equipment Directive 2014/68/EU. These WEH® Products may not be used (i) as safety accessories or (ii) for vessels as defined by the Pressure Equipment Directive 2014/68/EU. Therefore, the application of these WEH® Products must comply with their classification as pressure accessories for piping. 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

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