

CHECK VALVES FOR SIMPLE APPLICATIONS

TVR61 of brass

for hydraulic and pneumatic applications



General



Features & benefits

- ▶ Brass
- ▶ Full flow, large flow capacity
- ▶ Minimum pressure loss
- ▶ Compact dimensions
- ▶ Average leak tightness
- ▶ Low-noise opening and closing

Description

The TVR61 check valves are particularly quiet in operation and are characterized by a high flow rate. The valves can be installed in any position. Only the direction of flow must be observed.

TVR61 check valves are equipped with a FKM seal as standard. Other sealing materials are available on request. It is the customer's responsibility to clarify the media compatibility.

Intended use

The TVR61 check valves were only developed for reliable return flow prevention. They are not designed to be used as filling or safety valves. The separation or shut off between different media or a medium and vacuum also does not represent a fundamental intended use.

If you have such an application or a similar application, please contact us!

The TVR61 check valves are suitable for hydraulic (oils of fluid group 2 as defined in the Pressure Equipment Directive 2014/64/EU) and pneumatic applications in plant engineering as well as for air conditioning, heating installations and systems with submersible pumps and pressure vessels.

General

Flow values

In the table below you will find the flow rates of the various nominal bores of our TVR61 Brass check valves.

Nominal bore (DN)	Kv (Cv) value	Nominal bore (DN)	Kv (Cv) value	Nominal bore (DN)	Kv (Cv) value
8 mm	6.9 (8.0)	20 mm	11.4 (13.3)	40 mm	48.8 (56.9)
10 mm	6.9 (8.0)	25 mm	14.5 (16.9)	50 mm	68.9 (80.3)
15 mm	8.8 (10.3)	32 mm	27.4 (31.9)		

The flow curves were determined on the basis of the DIN/EN 60534-2 standard and refer to a cavitation-free flow (water). System-sided constrictions at the inlet and outlet can reduce the flow rate.

Overview product series

Product series	Pressure range	Housing material	Connection types	Page
TVR61-S1	0 - 40 bar	Brass	Female thread	4

Overview product series & connection configurations

Product series	Media inlet B1	Media outlet B2	Page
TVR61-S1-A02	Female thread	Female thread	5

Technical data

Technical data

The following illustrations are examples of check valves of the TVR61 product family.



Characteristics	Preferred variant space	Extended variant space
Product series	TVR61-S1	TVR61-S1
Connection configuration	A02	A02
Connection sizes for media inlet B1 / media outlet B2	G1/4", G3/8", G1/2", G3/4", G1", G1 1/4", G1 1/2", G2"	On request
Nominal bore (DN)	Acc. to design	Acc. to design
Max. allowable operating pressure PS	20 to 40 bar, acc. to design	Other pressure on request
Cracking pressure PC	0.025 bar	0.025 bar
Temperature range	-20 °C up to +100 °C, acc. to application	Depending on sealing material
Housing material	Brass	Brass
Spring material	Stainless steel	Stainless steel
Sealing material DW	FKM	<ul style="list-style-type: none"> • FKM • NBR on request
Sealing concept	Cone sealing	Cone sealing
Flow direction	B1 → B2	B1 → B2

Designs with other connection sizes, other operating pressures or NBR sealing material on request

Possible connection configurations

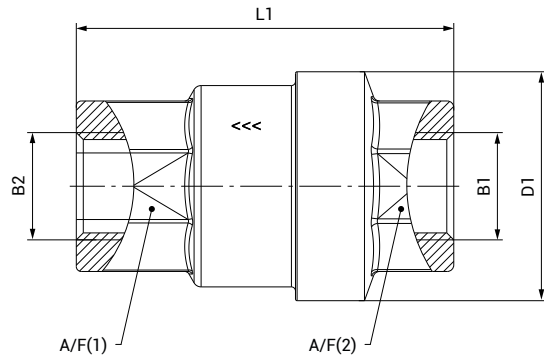
In addition to the table of technical characteristics (see above), the following possible connection configurations of check valves of the TVR61 product family are listed. The connection configuration is part of the product series.

Connection configuration	Media inlet B1	Media outlet B2
A02	Female thread	Female thread

Ordering

Ordering | TVR61-S1-A02 - female thread on both sides

Inlet B1: female thread / outlet B2: female thread



approx. dimensions (mm)

B1 / B2: Whitworth tube thread acc. to DIN EN ISO 228-1

Connection size: media inlet B1 = media outlet B2

Check valves of the preferred variant space:

Part No.	B1	B2	DN	PS (bar)	PC (bar)	DW	L1	D1	A/F(1) / A/F(2)	AVL*
C1-89289	G1/4"	G1/4"	10	40	0.025	FKM	46.5	28	21	RM
C1-89290	G3/8"	G3/8"	10	40	0.025	FKM	46.5	28	21	RM
C1-89292	G1/2"	G1/2"	15	40	0.025	FKM	48	34	26	RM
C1-89293	G3/4"	G3/4"	20	30	0.025	FKM	59	41.5	32	RM
C1-89294	G1"	G1"	25	30	0.025	FKM	67	50	39	RM
C1-89295	G1 1/4"	G1 1/4"	32	25	0.025	FKM	76	60.5	49	RM
C1-89296	G1 1/2"	G1 1/2"	40	25	0.025	FKM	90	73.5	56	RM
C1-89297	G2"	G2"	50	20	0.025	FKM	101	89	69	RM

* AVL: availability see page 12 in catalog no. 45

Further products

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

Technical explanations

TECHNICAL EXPLANATIONS

Abbreviations/Definitions

For explanation of abbreviations, definitions of terms and further explanations, see the applicable Technical Appendix of the corresponding catalog or visit 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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