

CHECK VALVES FOR SIMPLE APPLICATIONS

# TVR61 of brass

for hydraulic and pneumatic applications

## Features & benefits

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



## » Product family TVR61

### 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.

### 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.

## » Product family TVR61

---

### Overview product series

---

Product series	Pressure range	Housing material	Connection types	Page
TVR61-S1	0 - 40 bar	Brass	Female thread	66

### Overview product series & connection configurations

---

Product series	Media inlet B1	Media outlet B2	Page
TVR61-S1-A02	Female thread	Female thread	67

## » Product series TVR61-S1 | 0 up to 40 bar

### 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
<b>Connection sizes for media inlet B1 / media outlet B2</b>	<b>G1/4", G3/8", G1/2", G3/4", G1", G1 1/4", G1 1/2", G2"</b>	<b>On request</b>
Nominal bore (DN)	Acc. to design	Acc. to design
<b>Max. allowable operating pressure PS</b>	<b>20 to 40 bar, acc. to design</b>	<b>Other pressure on request</b>
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
<b>Sealing material DW</b>	<b>FKM</b>	<ul style="list-style-type: none"> <li>• FKM</li> <li>• NBR on request</li> </ul>
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

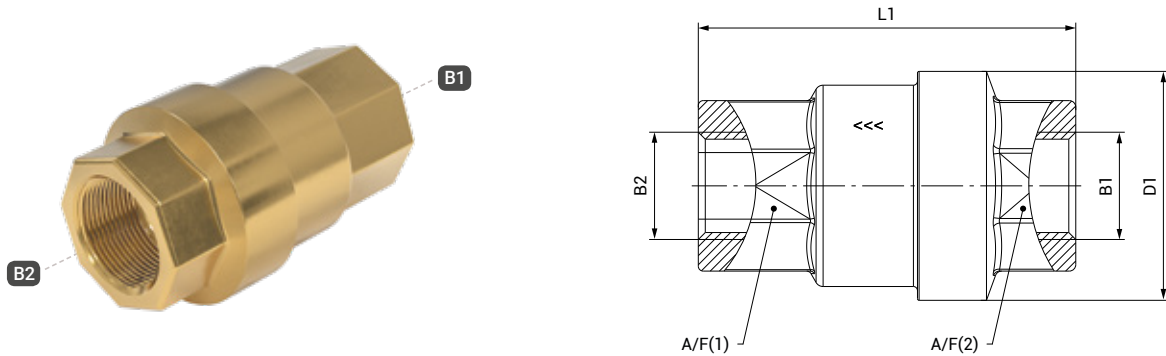
In addition to the table of technical characteristics (see above), the following possible connection configurations of check valves of the TVR61 product family are listed. The connection configuration is part of the product series.

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

## » Product series TVR61-S1 | 0 up to 40 bar

### 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