

CHECK VALVES FOR SIMPLE APPLICATIONS

## TVR60 of steel

for oil hydraulic and pneumatic applications



## General



### Features & benefits

- ▶ Galvanized steel
- ▶ Prevents fluid return into the circuit
- ▶ Metallic sealing, without o-ring
- ▶ High resistance to pressure peaks

## Description

The TVR60 galvanized steel check valves are specially developed for oil-hydraulic applications, often used in industry and agriculture.

TVR60 check valves are equipped with a metallic seal as standard. Elastomeric sealing materials on request. It is the customer's responsibility to clarify the media compatibility.

## Intended use

The TVR60 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 TVR60 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 industry, agriculture and the construction machinery sector.

General

**Overview product series**

Product series	Pressure range	Housing material	Connection types	Page
TVR60-S1	0 - 300 bar	Steel	Female thread	4

**Overview product series & connection configurations**

Product series	Media inlet B1	Media outlet B2	Page
TVR60-S1-A02	Female thread	Female thread	5

Technical data

Technical data | TVR60-S1

The following illustrations are examples of check valves of the TVR60 product family.



Characteristics	Preferred variant space	Extended variant space
Product series	TVR60-S1	TVR60-S1
Connection configuration	A02	A02
<b>Connection sizes for media inlet B1 / media outlet B2</b>	<b>G1/8", G1/4", G3/8", G1/2", G3/4", G1", G1 1/4", G1 1/2", G2"</b>	<ul style="list-style-type: none"> <li>• G1/8", G1/4", G3/8", G1/2", G3/4", G1", G1 1/4", G1 1/2", G2"</li> <li>• NPT thread on request</li> </ul>
Nominal bore (DN)	Acc. to design	Acc. to design
Max. allowable operating pressure PS	300 bar, acc. to design	300 bar, acc. to design
Cracking pressure PC	0.35 bar	0.35 bar
Temperature range	-20 °C up to max. +300 °C	Depending on sealing material
Housing material	Galvanized steel	Galvanized steel
<b>Sealing material DW</b>	Metallic	<ul style="list-style-type: none"> <li>• <b>Metallic</b></li> <li>• <b>Elastomeric sealing materials on request</b></li> </ul>
Sealing concept	Metallic sealing, without o-ring	Metallic sealing, without o-ring
Flow direction	B1 → B2	B1 → B2

Designs with other connection sizes or elastomeric sealing materials 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 TVR60 product family are listed. The connection configuration is part of the product series.

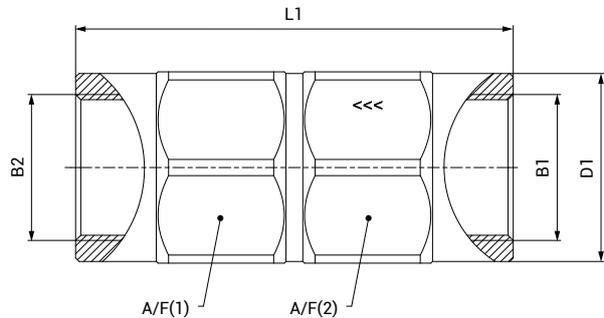
Connection configuration	Media inlet B1	Media outlet B2
A02	Female thread	Female thread

Ordering

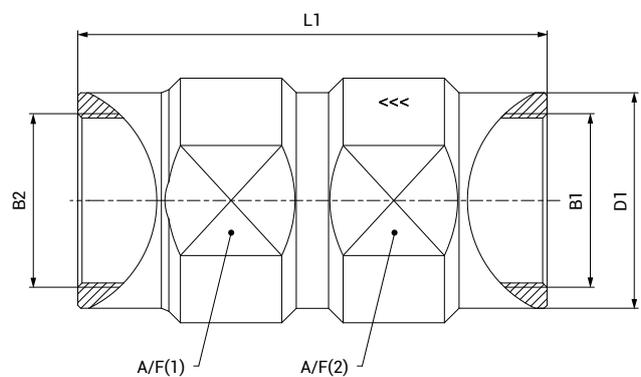
**Ordering | TVR60-S1-A02 - female thread on both sides**

Inlet B1: female thread / outlet B2: female thread

Design 1



Design 2



approx. dimensions (mm)

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.	Design	B1	B2	DN	PS (bar)	PC (bar)	DW	L1	D1	A/F(1) / A/F(2)	AVL*
C1-90389	1	G1/8"	G1/8"	4	300	0.35	Metallic	44	15	14	RM
C1-90390	1	G1/4"	G1/4"	6	300	0.35	Metallic	56	18.5	19	RM
C1-90391	1	G3/8"	G3/8"	10	300	0.35	Metallic	70	21.5	22	RM
C1-90392	1	G1/2"	G1/2"	13	300	0.35	Metallic	77	29.5	30	RM
C1-90393	1	G3/4"	G3/4"	20	300	0.35	Metallic	90	35	36	RM
C1-90394	1	G1"	G1"	25	300	0.35	Metallic	106	44.5	46	RM
C1-90395**	1	G1 1/4"	G1 1/4"	32	300	0.35	Metallic	125	54	55	RM
C1-90396**	1	G1 1/2"	G1 1/2"	40	300	0.35	Metallic	140	59	60	RM
C1-90397**	2	G2"	G2"	50	200	0.35	Metallic	160	74	75	RM

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

\*\* only suitable for media of fluid group 2 as defined in the Pressure Equipment Directive 2014/64/EU

**Further products**

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

## 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

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#### » Contact

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

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