

CHECK VALVES FOR SIMPLE APPLICATIONS

TVR60 of steel

for oil hydraulic and pneumatic applications

Features & benefits

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



» Product family TVR60

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.

» Product family TVR60

Overview product series

Product series	Pressure range	Housing material	Connection types	Page
TVR60-S1	0 - 300 bar	Steel	Female thread	60

Overview product series & connection configurations

Product series	Media inlet B1	Media outlet B2	Page
TVR60-S1-A02	Female thread	Female thread	61

» Product series TVR60-S1 | 0 up to 300 bar

Technical data

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
Connection sizes for media inlet B1 / media outlet B2	G1/8", G1/4", G3/8", G1/2", G3/4", G1", G1 1/4", G1 1/2", G2"	<ul style="list-style-type: none"> G1/8", G1/4", G3/8", G1/2", G3/4", G1", G1 1/4", G1 1/2", G2" NPT thread on request
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
Sealing material DW	Metallic	<ul style="list-style-type: none"> Metallic Elastomeric sealing materials on request
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.

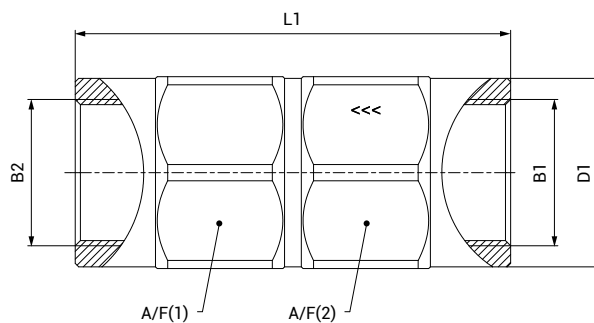
Connection configuration	Media inlet B1	Media outlet B2
A02	Female thread	Female thread

» Product series TVR60-S1 | 0 up to 300 bar

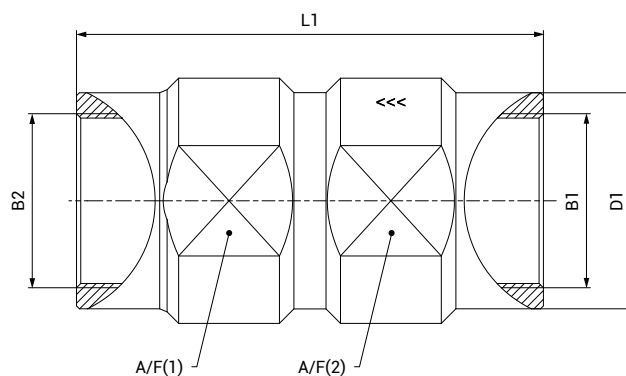
Ordering | TVR60-S1-A02 - female thread on both sides

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

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