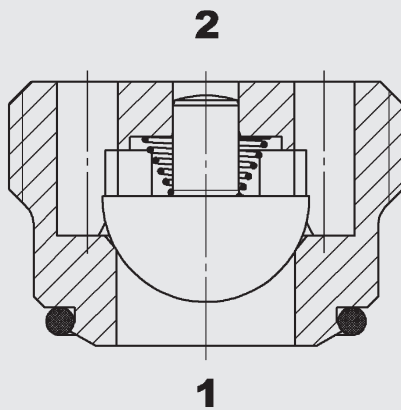


Check valve poppet type direct-acting Cartridge – 500 bar

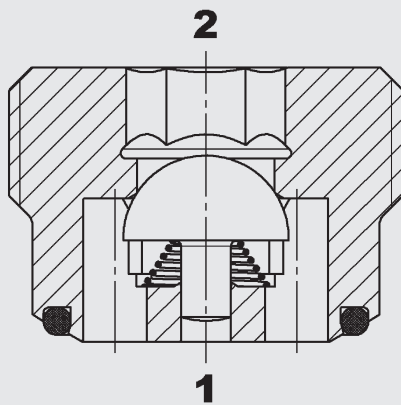
RVF G1/4 to G3/8
RVF 9/16-18 UNF

FUNCTION

Version A



Version R



The check valve is a direct-acting, spring-loaded poppet type valve. When there is no flow through the valve, the spring holds the spherical cap in closed position and blocks the flow:
Version A: blocked direction port 2 → 1
Version R: blocked direction port 1 → 2
The valve opens in the opposite direction when the inlet pressure is higher than the outlet pressure, including the spring force:
Version A: flow direction port 1 → 2
Version R: flow direction port 2 → 1

FEATURES

- Check valves for screwing directly into the threaded connection of a manifold
- Flow-optimised spherical cap reduces pressure loss
- Choice of 3 sizes ensures best possible adaptability to the system
- Leakage-free poppet design for shut-off of system parts
- Reverse-flow version: simple reversal of non-return functionality with no change to cavity required
- Sealing geometry is robust against usual contamination (see filtration)

SPECIFICATIONS*

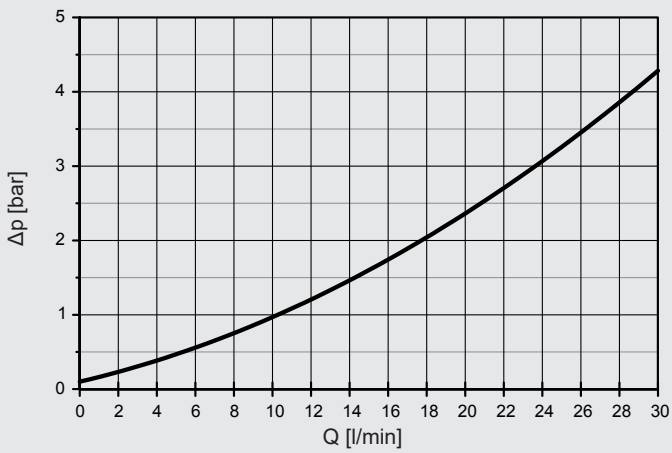
Operating pressure:	max. 500 bar	
Nominal flow:	RVF-G1/4-A-01-N-2	up to max. 30 l/min
	RVF-G1/4-R-01-N-2	up to max. 20 l/min
	RVF-G3/8-A-01-N-2	up to max. 45 l/min
	RVF-G3/8-R-01-N-2	up to max. 30 l/min
	RVF-9/16-18UNF-A-01-N-2	up to max. 30 l/min
	RVF-9/16-18UNF-R-01-N-2	up to max. 20 l/min
Media operating temperature range:	NBR: min. -30 °C bis max. +100 °C FKM: min. -20 °C bis max. +120 °C	
Ambient temperature range:	NBR: min. -30 °C bis max. +100 °C FKM: min. -20 °C bis max. +120 °C	
Operating fluid:	Hydraulic oil to DIN 51524 part 1, 2 and 3	
Viscosity range:	min. 2.8 mm ² /s to max. 800 mm ² /s	
Filtration:	Class 20/18/15 according to ISO 4406 or cleaner	
Installation:	No orientation restrictions	
Materials:	Valve body:	high tensile steel
	Closing element:	Roller bearing steel
	Seals:	NBR, FKM (optional)
Cavity:	G1/4, G3/8 and UNF 9/16-18	
Weight:	RVF1/4 =	0.005 kg
	RVF3/8 =	0.010 kg

* see "Conditions and Instructions for Valves" in brochure 53.000

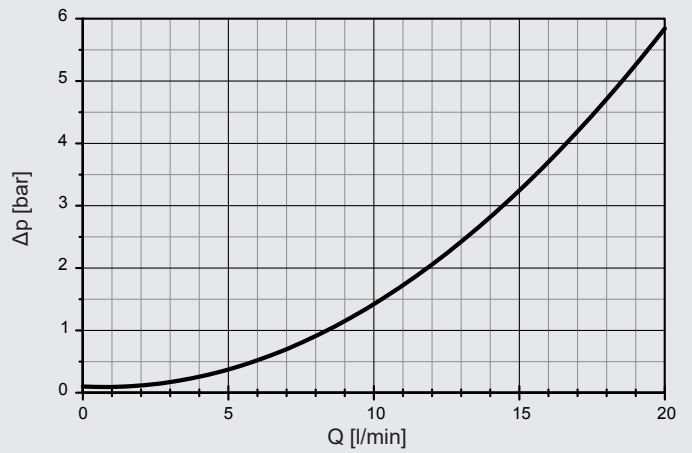
TYPICAL PERFORMANCE

Measured at:
 $v = 34 \text{ mm}^2/\text{s}$ and $T_{\text{oil}} = 46 \text{ }^\circ\text{C}$

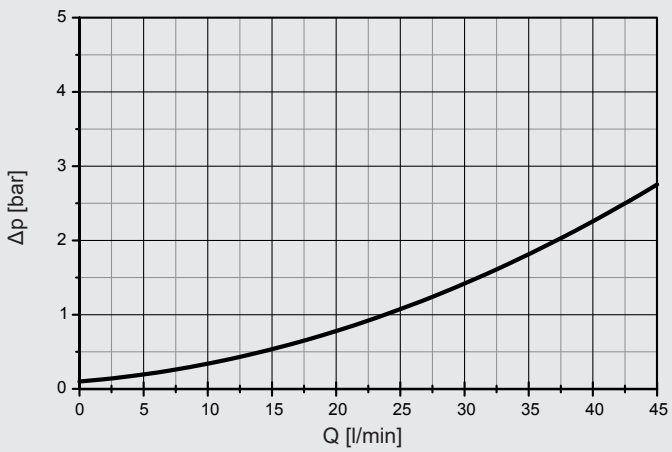
RVF-G1/4-A



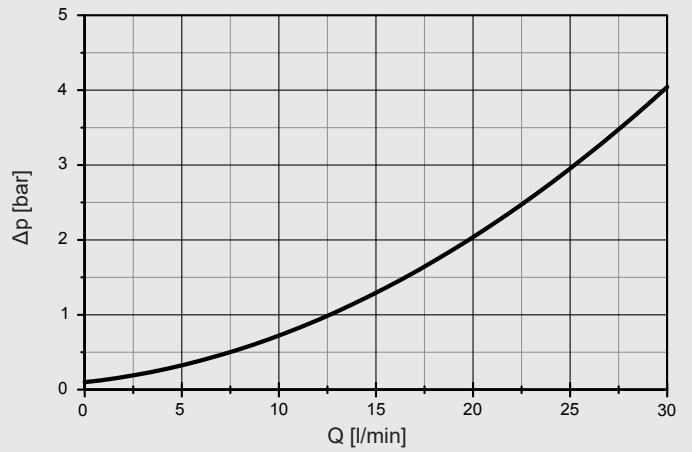
RVF-G1/4-R



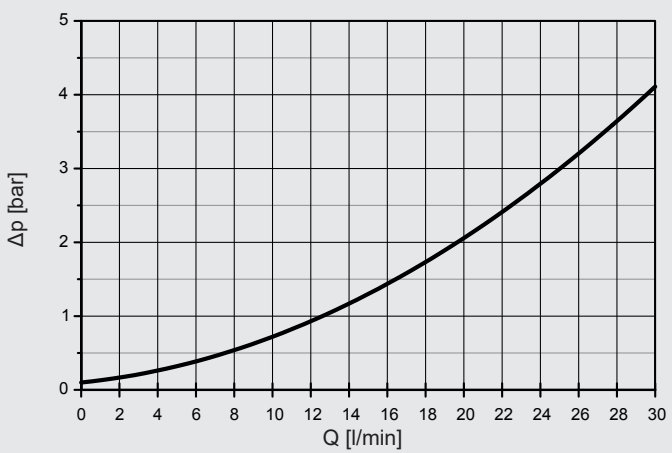
RVF-G3/8-A



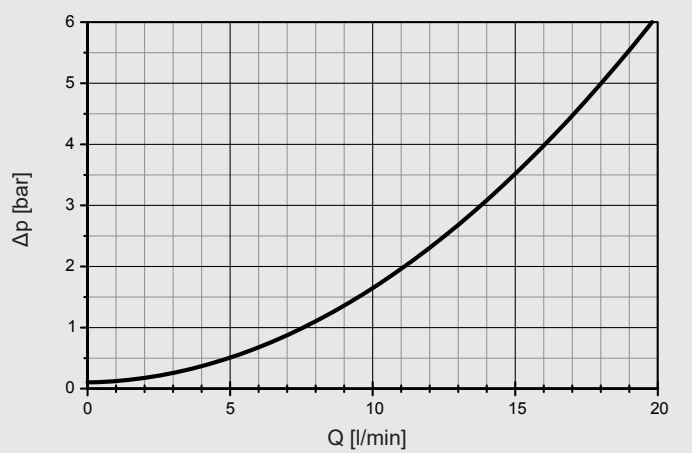
RVF-G3/8-R



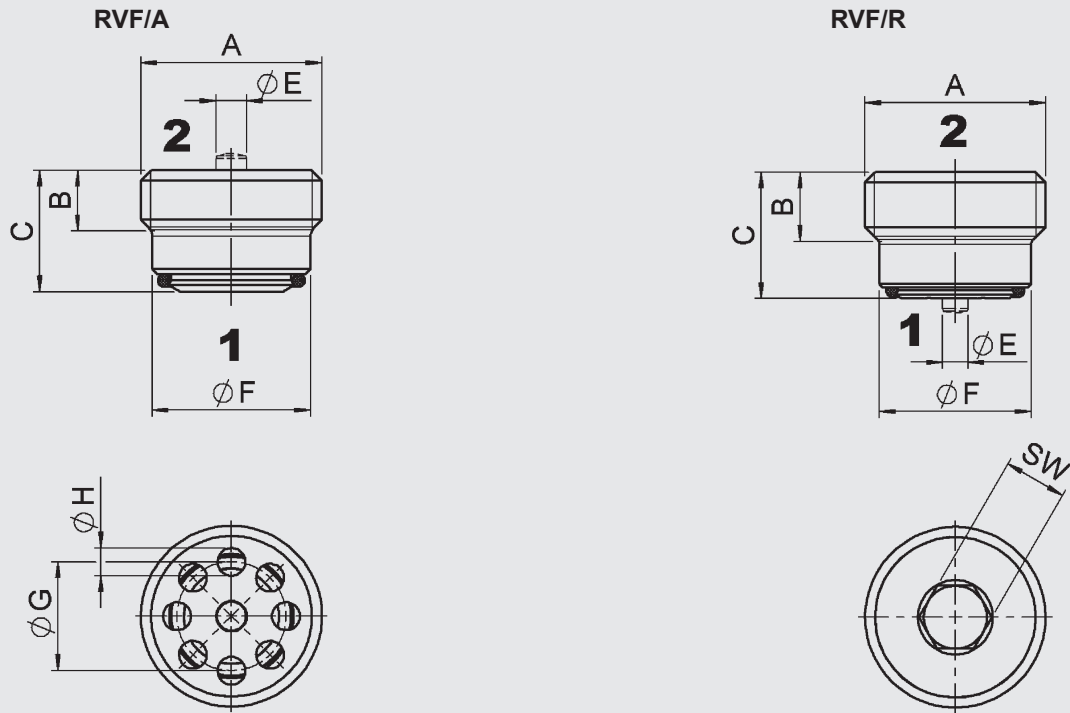
RVF-9/16-18UNF-A



RVF-9/16-18UNF-R



DIMENSIONS



Designation	A	B [mm]	C [mm]	D [mm]	ØE [mm]	ØF [mm]	ØG [mm]	ØH [mm]	SW [mm]	Torque* [Nm]
RVF-9/16-18UNF-R-01-.-.	9/16-18UNF	5.5	10	1	2	12	-	-	5	8
RVF-G1/4-R-01-.-.	G1/4	5.15	9.5	1	2	11.4 _{-0.1}	-	-	5	8
RVF-G3/8-R-01-.-.	G3/8	6.4	11.1	1.15	2.4	14.9 _{-0.1}	-	-	7	15
RVF-9/16-18UNF-A-01-.-.	9/16-18UNF	4.8	9.6	1.2	2.4	12.5	8.6	2.2	-	10
RVF-G1/4-A-01-.-.	G1/4	4.7	9.2	1.6	2.4	11.4 _{-0.1}	8.6	2.2	-	10
RVF-G3/8-A-01-.-.	G3/8	6.7	11.5	2.4	3	14.9 _{-0.1}	10.8	3.1	-	15

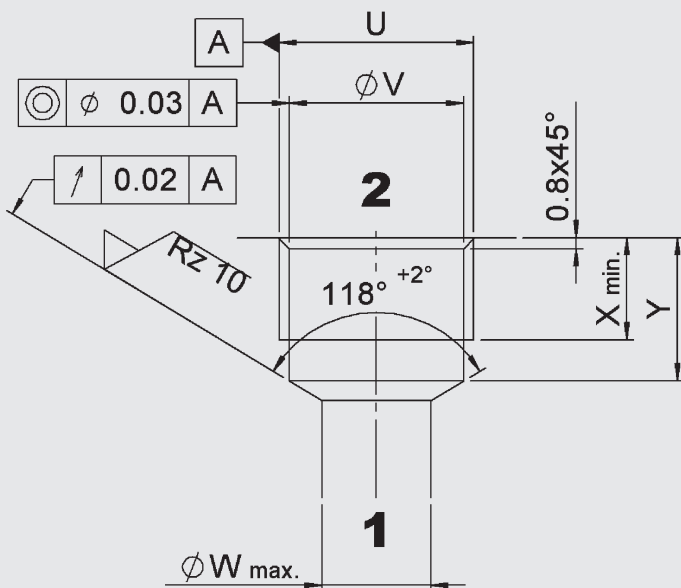
***Notice:**

Prevent valves from loosening by suitable measure.
 Ensure the required surface finish at the O-ring support.
 An over-tightening torque may cause leakage!

Millimeters
 Subject to technical modifications

CAVITY

Caution: Installation dimensions only describe the RVF itself!
 Provide thread depth for fittings if required.



Millimeters
 Subject to technical modifications

Cavity	U	ØV [mm]	ØW [mm]	X [mm]	Y [mm]
G1/4	G1/4	11.7 ^{+0.1}	8	7.5	10.5
G3/8	G3/8	15.2 ^{+0.1}	10	9	12
9/16-18UNF	9/16-18UNF	12.8 ^{+0.1}	8	7.5	10.5

Form tools

Tool	Part No.
Form tool RVF-9/16-18 UNF-A	4233343
Form tool RVF-G1/4-A	4233341
Form tool RVF-G3/8-A	4233342

MODEL CODE

RVF - G1/4 - A - X - N - 2

Basic model

Check valve

Threads

G1/4 = RVF 1/4

G3/8 = RVF 3/8

9/16-18 = RVF 9/16 UNF

Code, flow

A = from port 1 to 2

R = from port 2 to 1

Series

specified by manufacturer

Seals

N = NBR (standard)

V = FKM

Cracking pressure*

0 = no spring

2 = 0,15 bar (2 PSI)

*higher cracking pressures for realisation of preload pressures are not intended for this series - alternatively see our RV series

Standard models

Name	Part no.
RVF-G1/4-A-01-N-2	3764907
RVF-G1/4-R-01-N-2	3764908
RVF-G3/8-A-01-N-2	3764909
RVF-G3/8-R-01-N-2	3764910
RVF-9/16-18UNF-A-01-N-2	3706961
RVF-9/16-18UNF-R-01-N-2	3706963

Other models on request

NOTE

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department.
Subject to technical modifications.

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