

RV & RVP Series Check Valves



RV Series
Inline Mounting

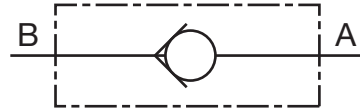


RVP Series
Manifold Mounting

Specifications

- 5000 psi operating pressure
- 9 Sizes, 1/8" - 2"
- NPT or SAE O-Ring connections and manifold mounting
- Flows to 150 gpm
- Carbon Steel Housing
- FPM (Fluoroelastomer) O-Rings (for RVP series)
- Metal to metal seal design for poppet
- Hardened and ground steel poppet
- 3 Cracking Pressures: 7 psi (standard), 25 psi and 65 psi (optional)
- Temperature Range: -4° to 212°F at full pressure

Hydraulic Symbol



Model Code

										RV - 06 - 01 .X / 5 - 25	
Check Valve											
RV	=	Inline Mounting									
RVP	=	Manifold Mounting									
Nominal Sizes											
Nom Size (RV + RVP)	SAE (RV Only) Tube Size	Thread Size	NPTF (RV Only) Pipe Size	Pipe OD	BSPP (RV Only) Thread Size						
06	= -2	5/16-24 UNF	1/8"	0.405"	G1/8						
08	= -4	7/16-20 UNF	1/4"	0.540"	G1/4						
10	= -6	9/16-18 UNF	3/8"	0.675"	G3/8						
12	= -8	3/4-16 UNF	1/2"	0.840"	G1/2						
16	= -12	1-1/16-12 UN	3/4"	1.050"	G3/4						
20	= -16	1-5/16-12 UN	1"	1.315"	G1						
25	= -20	1-5/8-12 UN	1-1/4"	1.660"	G1 1/4						
30	= -24	1-7/8-12 UN	1-1/2"	1.900"	G1 1/2						
40	= -32	2-1/2-12 UN	2"	2.375"	G2						
Housing Material											
01	=	Carbon Steel									
Modification Number											
Port Configuration											
(omit)	=	RVP only									
0	=	BSPP to DIN 3852, Part 2-X									
5	=	NPTF - ANSI/ASME 1.20.3 Taper Pipe Thread									
12	=	SAE - SAEJ1926 Ports with ISO 725 Threads and O-Ring Sealing									
Cracking Pressure											
(omit)	=	7 psi (standard)									
25	=	25 psi									
65	=	65 psi									

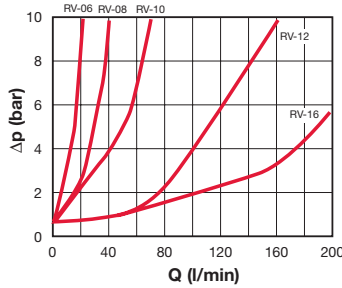
Note: Not recommended for high-cycle applications!

Model Codes containing selections listed in RED are non-standard items – Minimum quantities will apply – Contact HYDAC for information and availability
Not all combinations are available

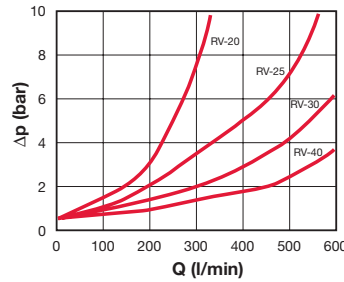
Pressure Drop Curves

Flow Direction: B to A / Free Flow Through Check Valve (A to B is Completely Blocked)

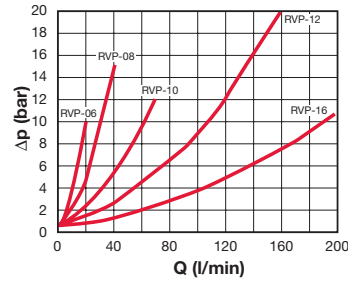
RV-06... to RV-16...



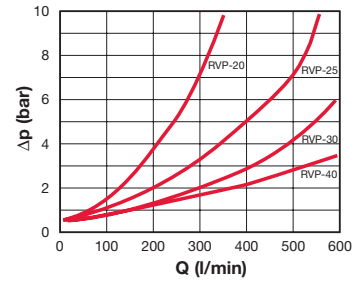
RV-20... to RV-40...



RVP-06... to RVP-16...



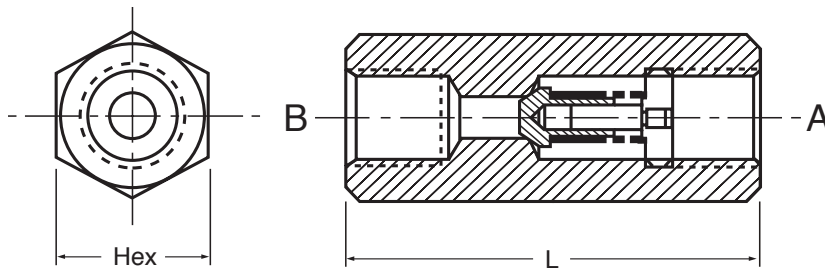
RVP-20... to RVP-40...



Pressure Drop curves were established by using mineral oil with kinematic viscosity 335 SUS at 86°F / 30°C

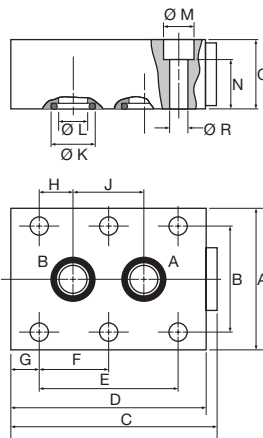
Dimensions

RV Inline Check Valves



Model Code	Port Size		Hex	L	Weight
	NPT	SAE			
RV-06	1/8"	5/16-24 UNF	11/16 (17)	1.77 (45)	0.22 (0.1)
RV-08	1/4"	7/16-20 UNF	3/4 (19)	2.17 (55)	0.44 (0.2)
RV-10	3/8"	9/16-18 UNF	1 (24)	2.60 (65)	0.44 (0.2)
RV-12	1/2"	3/4-16 UNF	1 1/4 (30)	2.87 (73)	0.66 (0.3)
RV-16	3/4"	1 1/16-12 UN	1 7/16 (36)	3.46 (88)	1.1 (0.5)
RV-20	1"	1 5/16-12 UN	1 13/16 (46)	5.00 (127)	2.4 (1.1)
RV-25	1-1/4"	1 5/8-12 UN	2 3/8 (60)	5.63 (143)	4.0 (1.8)
RV-30	1-1/2"	1 7/8-12 UN	2 9/16 (65)	5.63 (143)	5.7 (2.6)
RV-40	2"	2 1/2-12 UN	3 3/16 (80)	6.50 (165)	9.7 (4.4)

RVP Manifold Mounted Check Valves



Model Code	Port Size			D	E	F ⁽¹⁾	G	H	J	K	L	M	N	O	R	Wgt
	A	B	C													
RVP-06	1.63 (41.5)	1.12 (28.5)	1.31 (46)	1.63 (41.5)	0.75 (19)	-	0.25 (6.4)	0.06 (1.6)	0.63 (16)	0.38 (9.7)	0.2 (5)	0.43 (11)	0.35 (9)	0.63 (16)	0.26 (6.6)	0.4 (0.2)
RVP-08	1.81 (46)	1.32 (33.5)	2.64 (67)	2.5 (63.5)	1.38 (35)	-	0.56 (14.2)	0.19 (4.8)	1.00 (25.5)	0.50 (12.7)	0.28 (7)	0.43 (11)	0.51 (13)	0.79 (20)	0.26 (6.6)	0.9 (0.4)
RVP-10	2.01 (51)	1.50 (38)	2.81 (74)	2.76 (70)	1.32 (33.5)	-	0.71 (18)	0.16 (4)	1.00 (25.5)	0.61 (15.6)	0.39 (10)	0.43 (11)	0.71 (18)	0.98 (25)	0.26 (6.6)	1.1 (0.5)
RVP-12	2.26 (57.5)	1.75 (44.5)	3.33 (84.5)	3.15 (80)	1.50 (38)	-	0.83 (21)	0.16 (4)	1.18 (30)	0.73 (18.6)	0.51 (13)	0.43 (11)	0.98 (25)	1.26 (32)	0.26 (6.6)	2.2 (1.0)
RVP-16	2.76 (70)	2.13 (54)	4.31 (109.5)	4.09 (104)	2.99 (76)	1.50 (38)	0.55 (14)	0.43 (11)	2.13 (54)	0.96 (24.5)	0.67 (17)	0.55 (14)	1.42 (36)	1.77 (45)	0.35 (9)	4.6 (2.1)
RVP-20	3.01 (76.5)	2.36 (60)	5.24 (133)	5.00 (127)	3.74 (95)	1.87 (47.5)	0.63 (16)	0.75 (19)	2.24 (57)	1.20 (30.5)	0.87 (22)	0.55 (14)	1.61 (41)	1.97 (50)	0.35 (9)	7.3 (3.3)
RVP-25	3.94 (100)	2.99 (76)	6.77 (172)	6.50 (165)	4.74 (120.5)	2.36 (60)	0.59 (15)	0.81 (20.6)	3.13 (79.5)	1.47 (37.4)	1.12 (28.5)	0.71 (18)	1.73 (44)	2.17 (55)	0.45 (11.5)	12.8 (5.8)
RVP-30	4.53 (115)	3.62 (92)	7.72 (196)	7.32 (186)	5.63 (143)	2.81 (71.5)	0.59 (15)	0.94 (23.8)	3.74 (95)	1.71 (43.4)	1.38 (35)	0.79 (20)	2.44 (62)	2.95 (75)	0.55 (14)	22.7 (10.3)
RVP-40	5.51 (140)	4.37 (111)	7.91 (201)	7.56 (192)	5.26 (133.5)	2.64 (67)	0.63 (16)	1.00 (25.5)	3.50 (89)	2.25 (57.2)	1.85 (47)	0.79 (20)	3.43 (87)	3.94 (100)	0.55 (14)	39.5 (17.9)

¹) Only 4 mounting holes are used on sizes 06, 08, 10, & 12

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.

Dimensions are in inches/(mm) and lbs./kg.