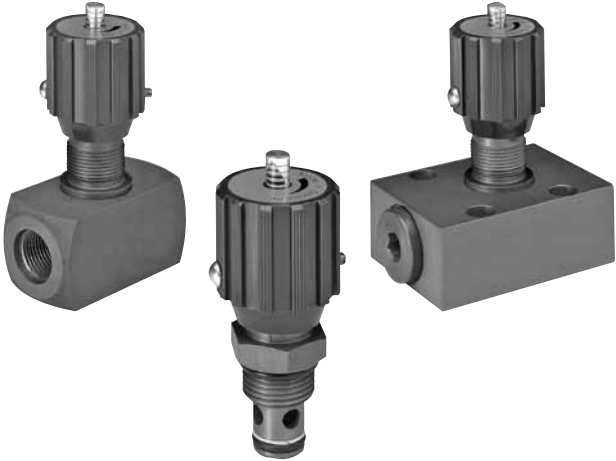


Overview

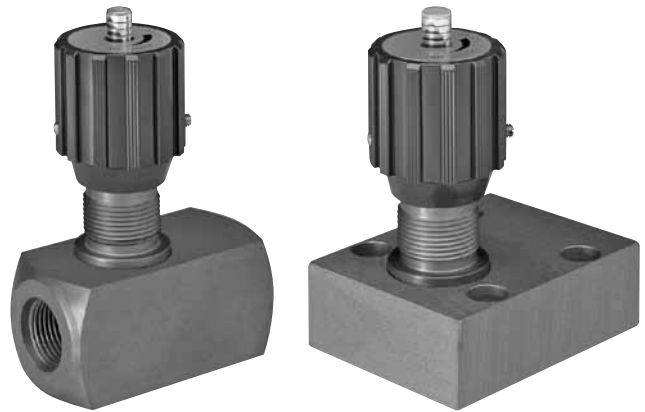
Needle Valves

DV, DVE & DVP Series (see page 43)



Flow Control Valves

DRV & DRVP Series (see page 47)



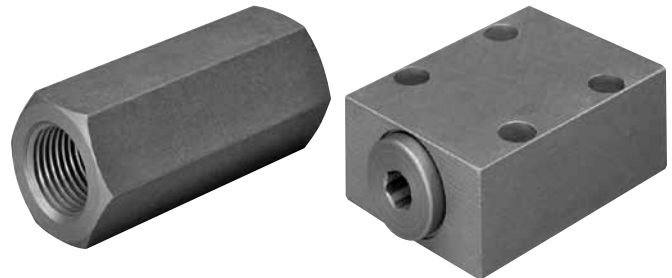
Pressure Compensated Flow Control Valves

SRVR Series (see page 51)



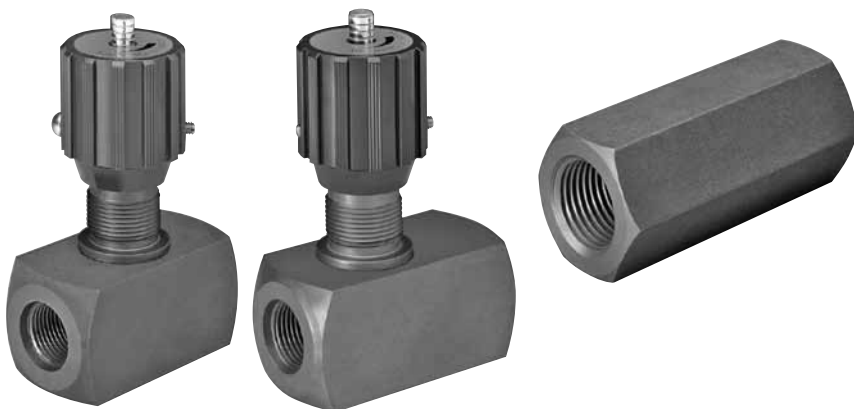
Check Valves

RV & RVP Series (see page 53)

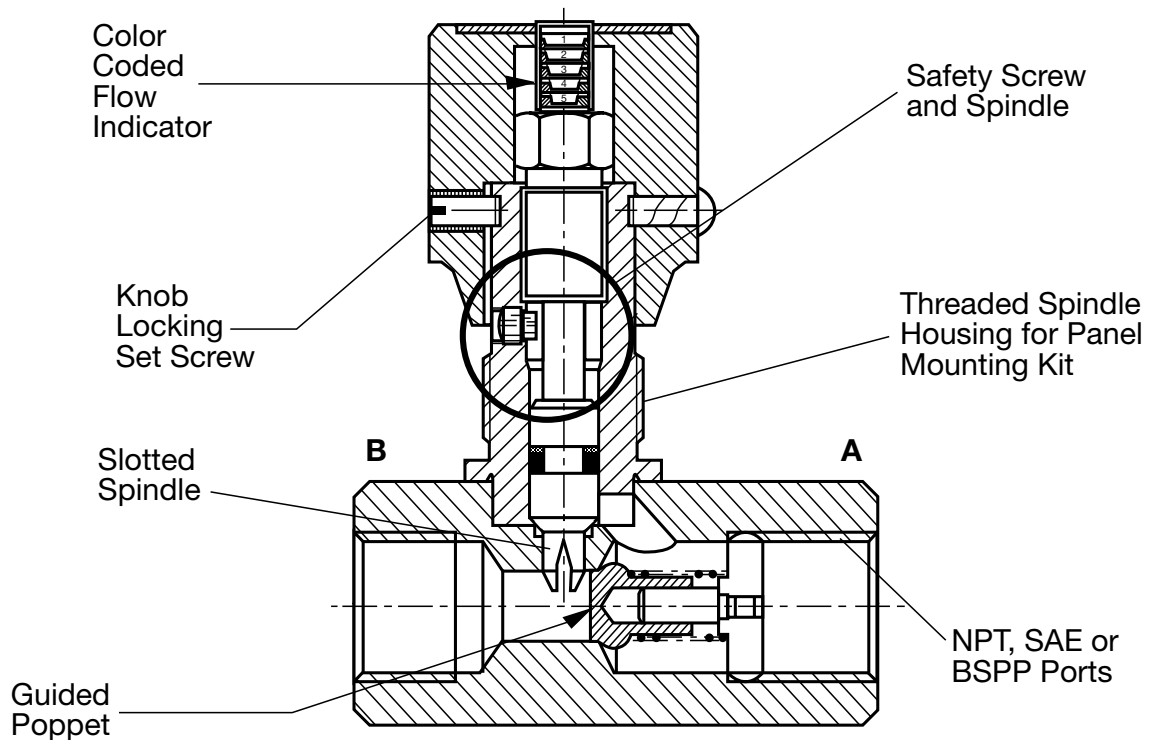


Stainless Steel Flow Control Valves

DV, DRV & RV Series (see page 55)



Flow Control Valve Design Features and Options



Introduction

Our complete line of flow control valves are designed and manufactured by our ISO 9001 certified FLUTEC Division.

Description

- The HYDAC family of flow control valves permit safe, simple and repeatable control of hydraulic fluids at operating pressures to 5000 psi.
- The standard slotted control spindle allows for a wide range of infinitely variable flow adjustments with excellent flow characteristics.
- Precise adjustment of flow is achieved by a micrometer style adjustment knob featuring a color coded flow indicator for accurate, easy-to read visual flow reference.
- Design modifications and special materials are available for corrosive fluids such as phosphate ester, acids and caustics.

Valve Design

HYDAC flow control valves can be adjusted easily and precisely by means of the control knob. Increasing the number of turns from the fully closed position provides a steady increase of the flow rate. The colored scale permits accurate repetition of settings and the colored triangle on the rising spindle provides a visual indication of the increasing cross section of the flow area. A set screw on the side locks the knob at the desired setting.

HYDAC flow control valves include a unique safety spindle design feature. As the valve spindle is turned counter-clockwise, the spindle shoulder will engage the safety screw limiting the travel of the spindle. The hardened, high-strength steel safety screw is sealed in position to discourage tampering.

Product Features

- Phosphate coated steel valve body
- FPM (*Fluoroelastomer*) seals
- Slotted control spindle for precise and linear flow adjustments
- Exclusive safety spindle design
- Color coded spindle for accurate flow control
- Guided poppets for smoother, chatter free operation

Available Options

- Panel mounting kit
- 25 and 65 PSI cracking pressure springs (*7 psi standard*)
- Zinc Plated Body. Consult HYDAC for price and delivery

DV, DVE, & DVP Series Needle Valves



DV Series
Inline Mounting



DVP Series
Manifold Mounting

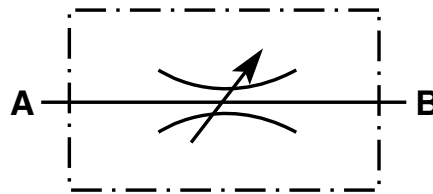


DVE Series
Cartridge Valve

Specifications

- 5000 psi operating Pressure
- 8 Sizes, 1/8" - 1-1/2"
- SAE O-Ring, NPT or BSPP Threaded Connections; Manifold Mounting; and Cartridge Type
- Flows to 80 gpm
- Carbon steel housing
- FPM (Fluoroelastomer) O-Rings (standard)
- Color coded spindle for accurate flow control
- Provision for panel mounting
- Unique safety spindle design
- Temperature Range: -4° to 212°F at full pressure

Hydraulic Symbol



Model Code

Needle Valve		Nominal Sizes		Housing Material		Modification Number		Port Configuration		Supplementary Details			
DV	= Inline Mounting	Nom. Size	SAE (DV only) Tube Size	Thread Size	NPTF (DV Only) Pipe Size	Pipe OD	BSPP (DV Only) Thread Size	01	= Carbon Steel	5	= NPTF - ANSI B1.20.3	S	= Panel Mounting Kit (not available in sizes 20, 25, 30)
DVP	= Manifold Mounting	06	=		1/8"	0.405"	G1/8	X	= BSPP to DIN 3852, Part 2-X				
DVE	= Cartridge Valve	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						
		DVE	Nom Size	SAE Cavity	BSPP Cavity								
		08	=	3/4-16 UNF	G1/2								
		10	=	7/8-14 UNF	G1/2								
		12	=	1-1/16-12 UN	G3/4								
		16	=	1-5/16-12 UN	G1								

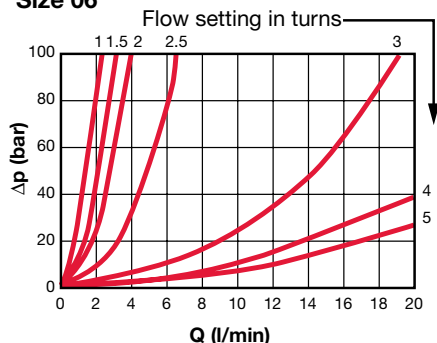
Model Codes containing selections listed in RED are non-standard items – Minimum quantities will apply – Contact HYDAC for information and availability
Not all combinations are available

Pressure Drop Curves

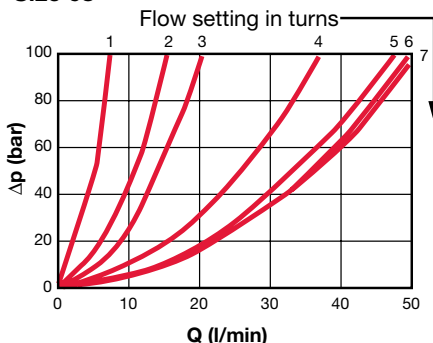
DV, DVP, DRV, DRVP Series

Flow Direction: A to B / Throttled Flow

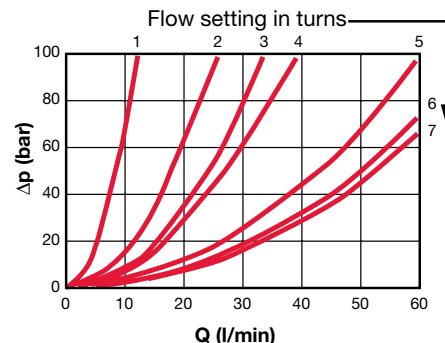
Size 06



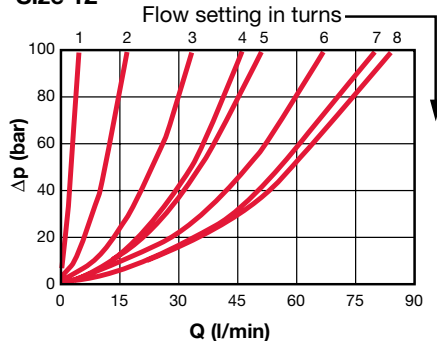
Size 08



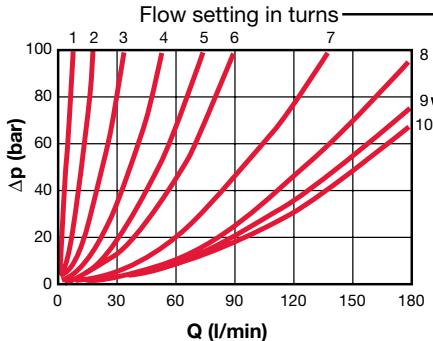
Size 10



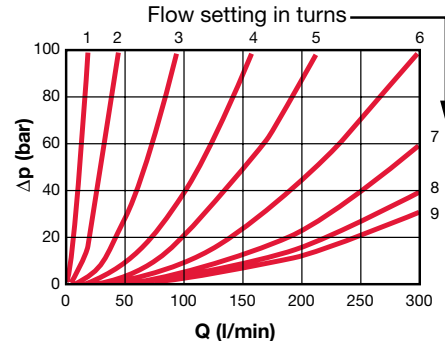
Size 12



Size 16



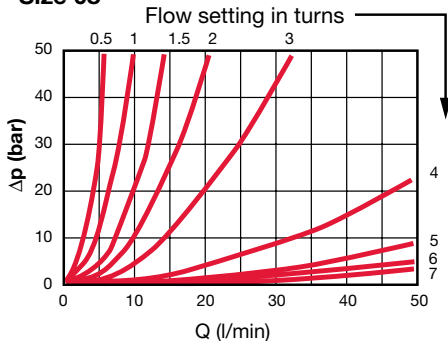
Size 20, 25, 30



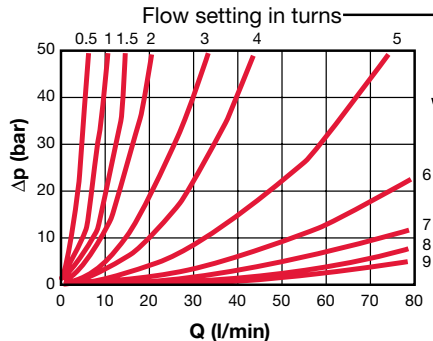
DVE Cartridge Flow Control Valves

Flow Direction: A to B / Throttled Flow

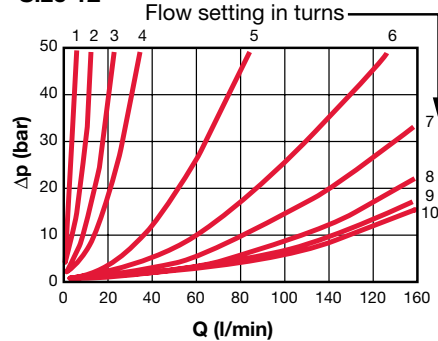
Size 08



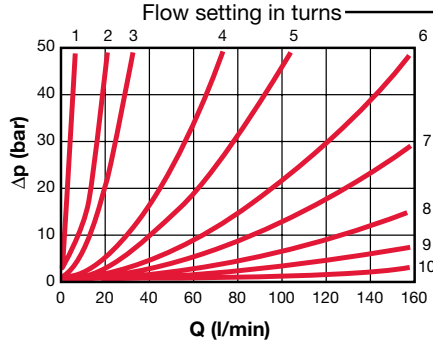
Size 10



Size 12



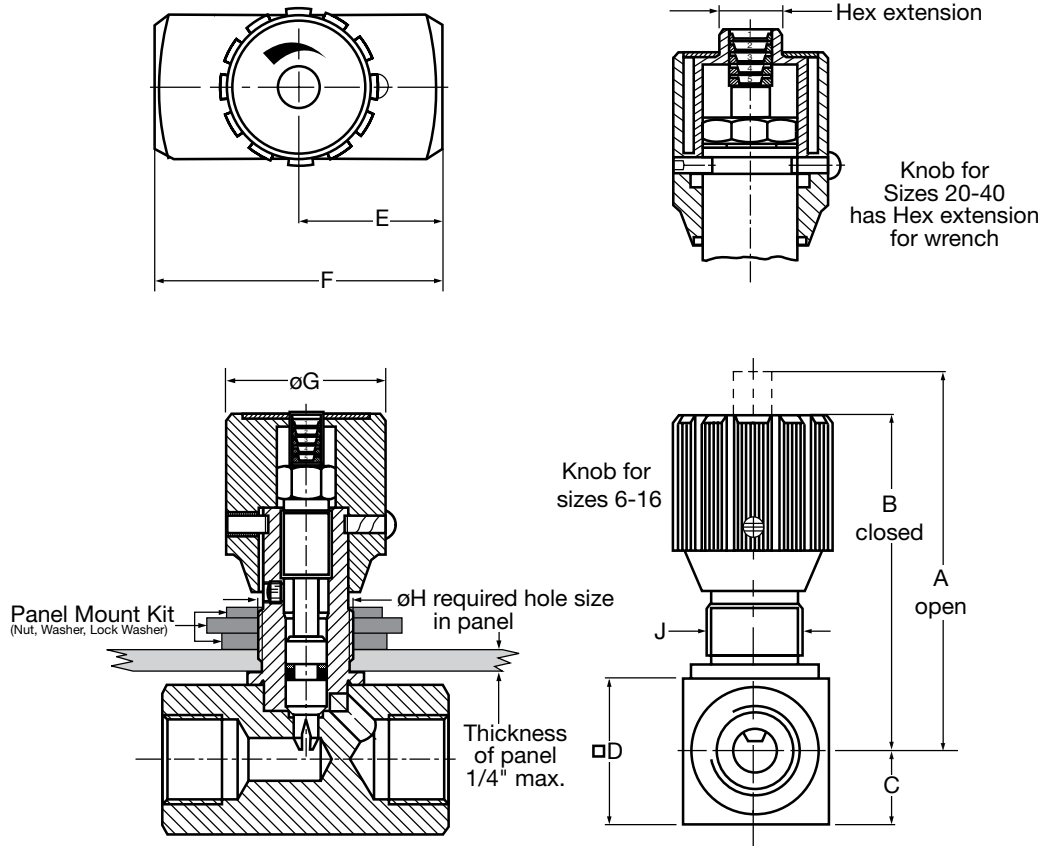
Size 16



Pressure Drop curves were established by using mineral oil with kinematic viscosity 165 SUS at 112°F / 50°C

Dimensions

DV Series Inline Needle Valve



Model Code	Port Size		A	B	C	D	E	F	ϕG	ϕH	J ¹⁾	Hex	Weight
	NPTF	SAE											
DV-06	1/8"	5/16-24UNF	2.16 (55)	1.97 (50)	0.31 (8)	0.63 (16)	0.75 (19)	1.50 (38)	0.94 (24)	0.51 (13)	Pg 7 thread	-	0.26 (0.12)
DV-08	1/4"	7/16-20UNF	2.83 (72)	2.56 (65)	0.49 (12.5)	0.98 (25)	0.94 (24)	1.89 (48)	1.14 (29)	0.75 (19)	Pg 11 thread	-	0.55 (0.25)
DV-10	3/8"	9/16-18UNF	2.91 (74)	2.64 (67)	0.59 (15)	1.18 (30)	1.14 (29)	2.28 (58)	1.14 (29)	0.75 (19)	Pg 11 thread	-	0.88 (0.40)
DV-12	1/2"	3/4-16UNF	3.62 (92)	3.23 (82)	0.69 (17.5)	1.38 (35)	1.34 (34)	2.68 (68)	1.50 (38)	0.91 (23)	Pg 16 thread	-	1.5 (0.70)
DV-16	3/4"	1-1/16-12UN	4.17 (105)	3.78 (96)	0.89 (22.5)	1.77 (45)	1.53 (39)	3.07 (78)	1.50 (38)	0.91 (23)	Pg 16 thread	-	2.6 (1.2)
DV-20	1"	1-5/16-12UN	5.71 (145)	5.04 (128)	0.98 (25)	1.97 (50)	2.13 (54)	4.25 (108)	1.93 (49)	1.50 (38)	Pg 29 thread	3/4 (19)	4.6 (2.1)
DV-25	1-1/4"	1-5/8-12UN	5.91 (150)	5.24 (133)	1.18 (30)	2.36 (60)	2.13 (54)	4.25 (108)	1.93 (49)	1.50 (38)	Pg 29 thread	3/4 (19)	6.2 (2.8)
DV-30	1-1/2"	1-7/8-12UN	6.10 (155)	5.43 (138)	1.38 (35)	2.76 (70)	2.13 (54)	4.25 (108)	1.93 (49)	1.50 (38)	Pg 29 thread	3/4 (19)	7.7 (3.5)

Panel Mount Kits

Size	Model Code	Part Number
6	Kit Panel Mount DV06	00705300
8/10	Kit Panel Mount DV08	00705310
12/16	Kit Panel Mount DV12	00705302

1) Note: Pg style thread per DIN 40430

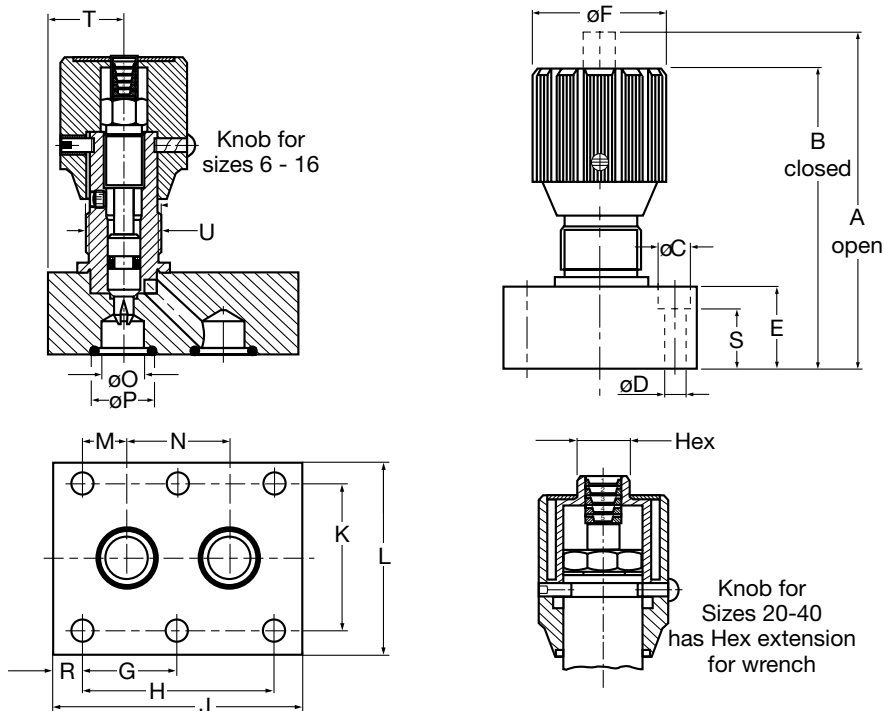
Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.

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

*Dependent upon valve and seal materials selected.

Dimensions

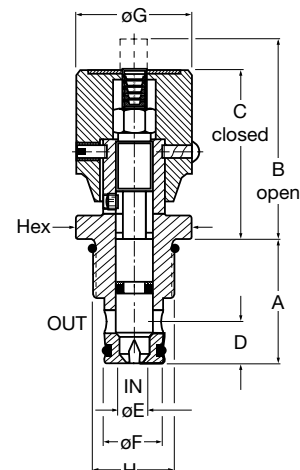
DVP Manifold Mount Needle Valve



Model Code	Nom. Size	A	B	øC	øD	E	øF	G ⁽¹⁾	H	J	K	L	M	N	øO	øP	R	S	T	U ⁽²⁾	Hex	Wt.
DVP-06	1/8"	2.48 (63)	2.28 (58)	.43 (11)	.26 (6.6)	.63 (16)	.94 (24)	-	.748 (19)	1.38 (35)	1.112 (28.5)	1.63 (41.5)	0.059 (1.5)	.630 (16)	0.197 (5)	0.382 (9.7)	0.315 (8)	0.35 (9)	0.37 (9.5)	Pg 7 thread	-	0.44 (0.2)
DVP-08	1/4"	3.11 (79)	2.83 (72)	.43 (11)	.26 (6.6)	.79 (20)	1.14 (29)	-	1.378 (35)	1.87 (47.5)	1.319 (33.5)	1.81 (46)	0.177 (4.5)	1.004 (25.5)	0.276 (7)	0.500 (12.7)	0.256 (6.5)	0.51 (13)	0.47 (12)	Pg 11 thread	-	0.88 (0.4)
DVP-10	3/8"	3.31 (84)	3.03 (77)	.43 (11)	.26 (6.6)	.98 (25)	1.14 (29)	-	1.319 (33.5)	2.01 (51)	1.496 (38)	2.01 (51)	0.165 (4.2)	1.004 (25.5)	0.394 (10)	0.614 (15.6)	0.335 (8.5)	0.71 (18)	0.55 (14)	Pg 11 thread	-	1.3 (0.6)
DVP-12	1/2"	3.90 (99)	3.50 (89)	.43 (11)	.26 (6.6)	.98 (25)	1.50 (38)	-	1.496 (38)	2.95 (75)	1.752 (44.5)	2.26 (57.5)	0.157 (4.0)	1.181 (30)	0.512 (13)	0.732 (18.6)	0.728 (18.5)	0.71 (18)	0.89 (22.5)	Pg 16 thread	-	2.2 (1.0)
DVP-16	3/4"	4.45 (113)	4.05 (103)	.55 (14)	.35 (9.0)	1.18 (30)	1.50 (38)	1.496 (38)	2.992 (76)	3.68 (93.5)	2.126 (54)	2.76 (70)	0.433 (11)	2.126 (54)	0.669 (17)	0.965 (24.5)	0.335 (8.5)	0.83 (21)	0.77 (19.5)	Pg 16 thread	-	3.7 (1.7)
DVP-20	1"	6.5 (165)	5.83 (148)	.55 (14)	.35 (9.0)	1.77 (45)	1.98 (49)	1.870 (47.5)	3.740 (95)	4.37 (111)	2.362 (60)	3.01 (76.5)	0.753 (19.1)	2.244 (57)	0.866 (22)	1.201 (30.5)	0.315 (8)	1.42 (36)	1.24 (31.5)	Pg 29 thread	3/4 (19)	8.0 (3.6)
DVP-25	1 1/4"	6.5 (165)	5.83 (148)	.71 (18)	.45 (11.5)	1.77 (45)	1.93 (49)	2.362 (60)	4.744 (120.5)	5.63 (143)	2.992 (76)	3.94 (100)	0.819 (20.8)	3.130 (79.5)	1.122 (28.5)	1.472 (37.4)	0.433 (11)	1.34 (34)	1.81 (46)	Pg 29 thread	3/4 (19)	12.1 (5.5)
DVP-30	1 1/2"	6.69 (170)	6.02 (153)	.79 (20)	.55 (14)	1.97 (50)	1.93 (49)	2.815 (71.5)	5.630 (143)	6.73 (171)	3.622 (92)	4.53 (115)	0.937 (23.8)	3.740 (95)	1.378 (35)	1.709 (43.4)	.591 (15)	1.46 (37)	1.53 (39)	Pg 29 thread	3/4 (19)	16.6 (7.5)

DVE Cartridge Valve

Size	A	B	C	D	øE	øF	øG	H	Hex	Wt.
DVE-08	1.00 (26)	1.85 (47)	1.57 (40)	0.472 (12)	0.177 (4.5)	0.559 (14.2)	1.14 (29)	3/4-16UNF	1 1/16 (27)	0.33 (0.15)
DVE-10	1.18 (30)	2.52 (64)	2.13 (54)	0.492 (12.5)	0.315 (8)	0.622 (15.8)	1.50 (38)	7/8-14UNF	1 1/16 (27)	0.55 (0.25)
DVE-12	1.57 (40)	2.56 (65)	2.17 (55)	0.531 (13.5)	0.375 (9.5)	0.807 (20.5)	1.50 (38)	1-1/16-12UNF	1 5/16 (32)	1.10 (0.50)
DVE-16	1.71 (43.5)	2.56 (65)	2.17 (55)	0.689 (17.5)	0.433 (11)	1.060 (26.9)	1.50 (38)	1-5/16-12UNF	1 5/8 (41)	1.54 (0.70)



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

2) Pg Style Thread per DIN 40430

Note: Contact factory for certified drawing of cartridge valve cavity.

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.)

DRV & DRVP Series Flow Control Valves



DRV Series
Inline Mounting

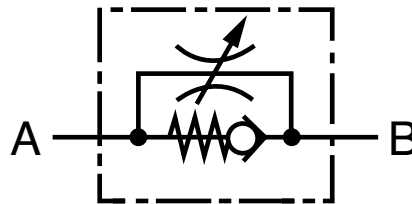


DRVP Series
Manifold Mounting

Specifications

- 5000 psi operating pressure
- 8 sizes, 1/8" - 1-1/2"
- NPTF or SAE O-Ring threaded connections, or manifold mounting
- Flows to 80 GPM
- Carbon steel housing
- FPM (Fluoroelastomer) O-Rings (standard)
- Color coded spindle for accurate flow control
- Provision for panel mounting
- Unique safety spindle design
- Temperature Range: -4° to 212°F at full pressure

Hydraulic Symbol



Model Code

DRV - 06 - 01 . X / 5 - 25 - S-M

Flow Control Valve

- DRV = Inline Mounting
- DRVP = Manifold Mounting

Nominal Sizes

Nominal Size (DRV + DRVP)	SAE (DRV only)		NPTF (DRV Only)		BSPP (DRV Only)
	Tube Size	Thread Size	Pipe Size	Pipe OD	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

Housing Material

- 01 = Carbon Steel

Modification Number

Port Configuration

- (omit) = DRVP only
- 0 = BSPP to DIN 3852, Part 2 -X
- 5 = NPTF (ANSI B1.20.3)
- 12 = SAE - SAEJ1926 Ports with ISO 725 Threads and O-Ring Sealing

Cracking Pressure

- (omit) = 7 PSI standard
- 25 = 25 PSI optional
- 65 = 65 PSI optional

Supplementary Details

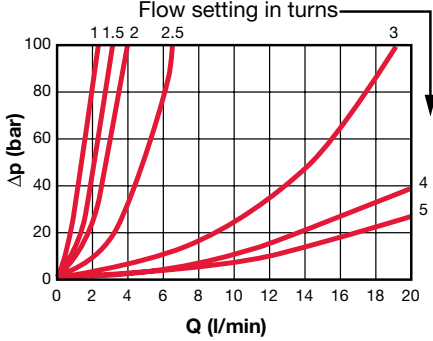
- S = Panel Mounting Kit (not available in sizes 20, 25, 30)

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

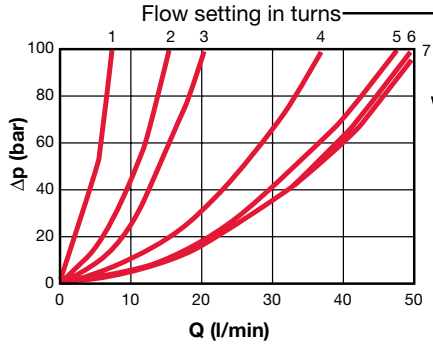
Pressure Drop Curves

Flow Direction: A to B / Throttled Flow

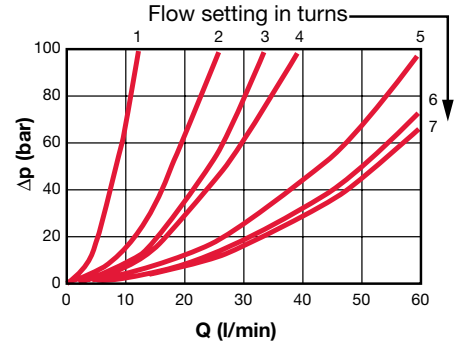
Size 06



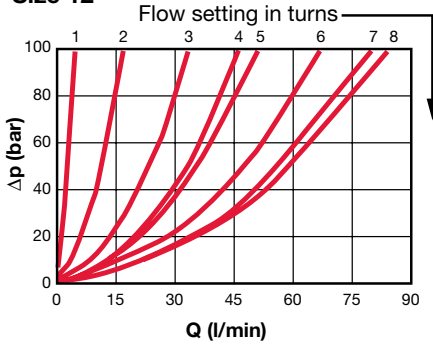
Size 08



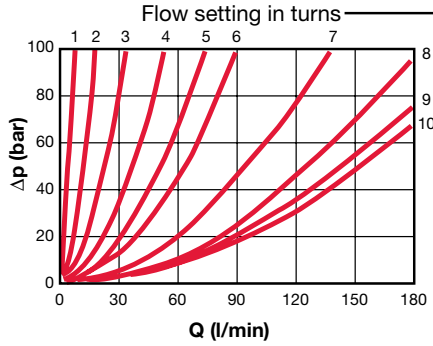
Size 10



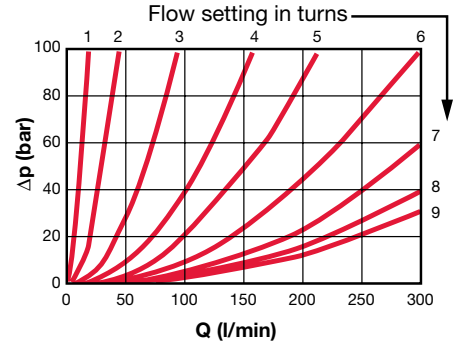
Size 12



Size 16

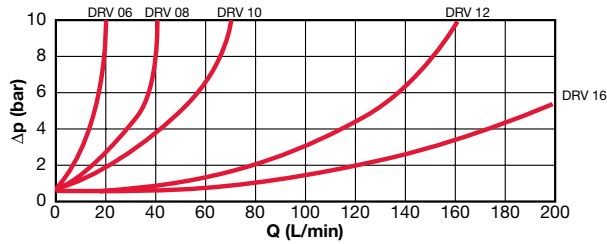


Size 20, 25, 30

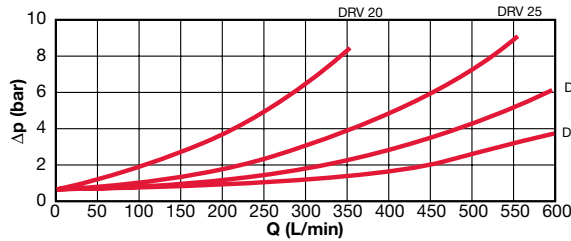


Flow Direction: B to A / Free Flow Through Check Valve

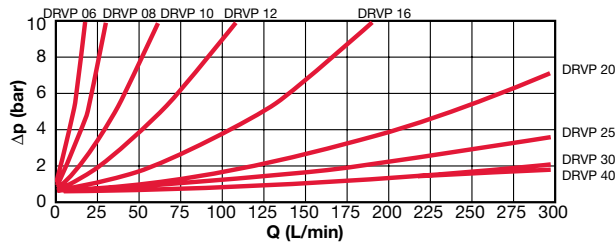
DRV-06-01.X to DRV-16-01.X



DRV-20-01.X to DRV-40-01.X



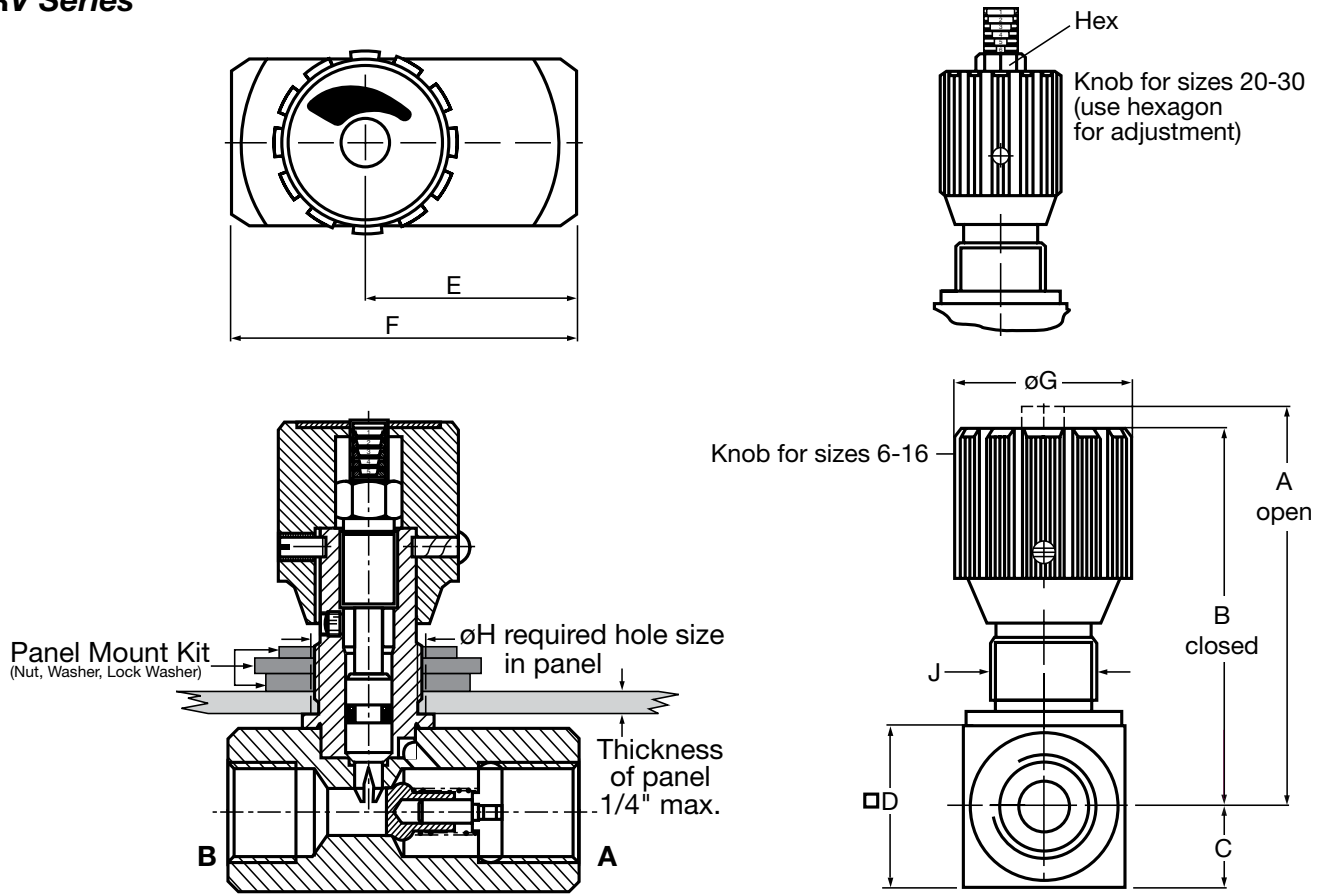
DRVP-06-01.X to DRVP-40-01.X



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

Dimensions

DRV Series



Model Code	Port Size NPTF	Port Size SAE	A	B	C	D	E	F	øG	øH	J ¹⁾ thread	Hex	Weight
DRV-06	1/8"	5/16-24UNF (SAE-2)	2.17 (55)	1.97 (50)	0.31 (8)	0.63 (16)	1.02 (26)	1.77 (45)	0.94 (24)	0.51 (13)	Pg 7	-	0.29 (0.13)
DRV-08	1/4"	7/16-20UNF (SAE-4)	2.84 (72)	2.56 (65)	0.49 (12.5)	0.98 (25)	1.32 (33.5)	2.17 (55)	1.14 (29)	0.75 (19)	Pg 11	-	0.66 (0.30)
DRV-10	3/8"	9/16-18UNF (SAE-6)	2.91 (74)	2.64 (67)	0.59 (15)	1.18 (30)	1.61 (41)	2.56 (65)	1.14 (29)	0.75 (19)	Pg 11	-	0.99 (0.45)
DRV-12	1/2"	3/4-16UNF (SAE-8)	3.62 (92)	3.23 (82)	0.69 (17.5)	1.38 (35)	1.73 (44)	2.87 (73)	1.50 (38)	0.91 (23)	Pg 16	-	1.76 (0.80)
DRV-16	3/4"	1 1/16-12UN (SAE-12)	4.17 (106)	3.78 (96)	0.89 (22.5)	1.77 (45)	2.24 (57)	3.46 (88)	1.50 (38)	0.91 (23)	Pg 16	-	2.87 (1.30)
DRV-20	1"	1 5/16-12UN (SAE-16)	5.71 (145)	5.04 (128)	0.98 (25)	1.97 (50)	3.03 (77)	5.00 (127)	1.93 (49)	1.50 (38)	Pg 29	3/4 (19)	5.29 (2.40)
DRV-25	1 1/4"	1 5/8-12UN (SAE-20)	5.91 (150)	5.24 (133)	1.18 (30)	2.36 (60)	3.66 (93)	5.63 (143)	1.93 (49)	1.50 (38)	Pg 29	3/4 (19)	7.72 (3.50)
DRV-30	1 1/2"	1 7/8-12UN (SAE-24)	6.10 (155)	5.43 (138)	1.38 (35)	2.76 (70)	4.25 (108)	5.63 (143)	1.93 (49)	1.50 (38)	Pg 29	3/4 (19)	10.14 (4.60)

Panel Mount Kits

Size	Model Code	Part Number
6	Kit Panel Mount DV06	00705300
8/10	Kit Panel Mount DV08	00705310
12/16	Kit Panel Mount DV12	00705302

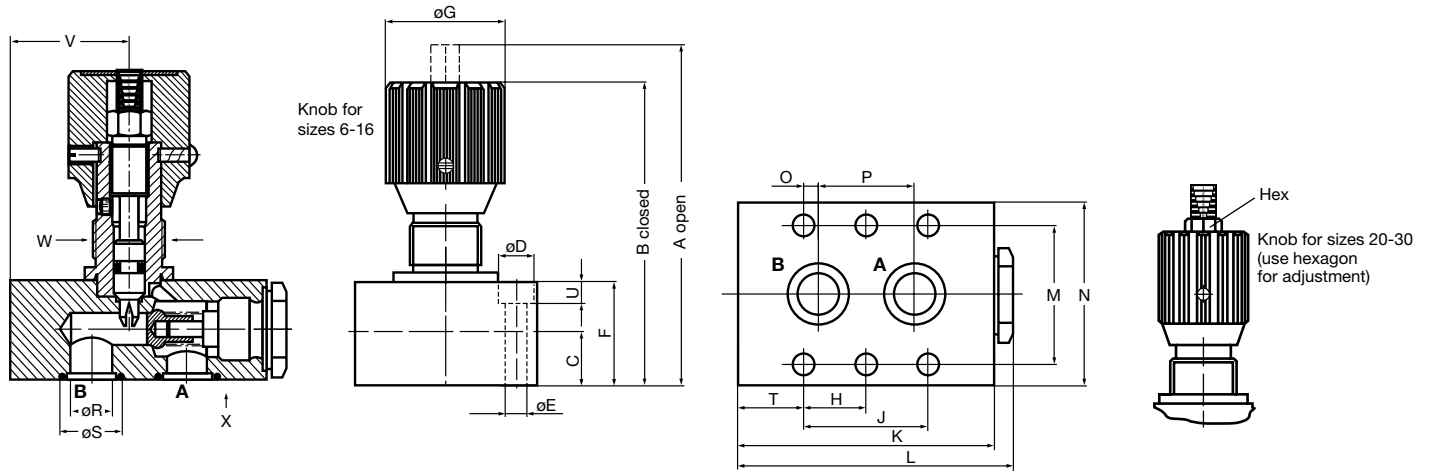
¹⁾ Pg style thread per DIN 40430

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.)

Dimensions

DRVP Series



Model Code	Nominal Size	A	B	C	øD	øE	F	øG	H ⁽¹⁾	J	K	L
DRVP-06	1/8"	2.48 (63)	2.28 (58)	0.31 (8)	0.43 (11)	0.26 (6.6)	0.63 (16)	0.94 (24)	-	7.48 (19)	1.63 (41.5)	1.81 (46)
DRVP-08	1/4"	3.11 (79)	2.83 (72)	0.39 (10)	0.43 (11)	0.26 (6.6)	0.79 (20)	1.14 (29)	-	1.378 (35)	2.50 (63.5)	2.64 (67)
DRVP-10	3/8"	3.31 (84)	3.03 (77)	0.49 (12.5)	0.43 (11)	0.26 (6.6)	0.98 (25)	1.14 (29)	-	1.319 (33.5)	2.76 (70)	2.91 (74)
DRVP-12	1/2"	4.17 (106)	3.78 (96)	0.63 (16)	0.43 (11)	0.26 (6.6)	1.26 (32)	1.50 (38)	-	1.496 (38)	3.15 (80)	3.33 (84.5)
DRVP-16	3/4"	5.04 (128)	4.65 (118)	0.89 (22.5)	0.55 (14)	0.35 (9)	1.77 (45)	1.50 (38)	1.496 (38)	2.992 (76)	4.09 (104)	4.31 (109.5)
DRVP-20	1"	6.69 (170)	6.02 (153)	0.98 (25)	0.55 (14)	0.35 (9)	1.97 (50)	1.93 (49)	1.870 (47.5)	3.740 (95)	5.00 (127)	5.24 (133)
DRVP-25	1 1/4"	6.89 (175)	6.22 (158)	1.08 (27.5)	0.71 (18)	0.45 (11.5)	2.16 (55)	1.93 (49)	2.362 (60)	4.744 (120.5)	6.50 (165)	6.77 (172)
DRVP-30	1 1/2"	7.68 (195)	7.01 (178)	1.48 (37.5)	0.79 (20)	0.55 (14)	2.95 (75)	1.93 (49)	2.815 (71.5)	5.630 (143)	7.32 (186)	7.72 (196)

Model Code	Nominal Size	M	N	O	P	øR	øS	T	U	V	W ² thread	Hex	Weight
DRVP-06	1/8"	1.122 (28.5)	1.63 (41.5)	0.63 (1.6)	0.630 (16)	0.20 (5)	0.382 (9.7)	0.252 (6.4)	0.28 (7)	0.53 (13.5)	Pg 7	-	0.57 (0.26)
DRVP-08	1/4"	1.319 (33.5)	1.81 (46)	0.189 (4.8)	1.004 (25.5)	0.28 (7)	0.500 (12.7)	0.559 (14.2)	0.28 (7)	1.22 (31)	Pg 11	-	1.10 (0.50)
DRVP-10	3/8"	1.496 (38)	2.01 (51)	0.157 (4)	1.004 (25.5)	0.39 (10)	0.614 (15.6)	0.709 (18)	0.28 (7)	1.16 (29.5)	Pg 11	-	1.76 (0.80)
DRVP-12	1/2"	1.752 (44.5)	2.26 (57.5)	0.157 (4)	1.181 (30)	0.51 (13)	0.732 (18.6)	0.827 (21)	0.28 (7)	1.44 (36.5)	Pg 16	-	2.42 (1.10)
DRVP-16	3/4"	2.126 (54)	2.76 (70)	0.433 (11)	2.126 (54)	0.67 (17)	0.965 (24.5)	0.551 (14)	0.35 (9)	1.93 (49)	Pg 16	-	5.51 (2.50)
DRVP-20	1"	2.362 (60)	3.01 (76.5)	0.748 (19)	2.244 (57)	0.87 (22)	1.201 (30.5)	0.630 (16)	0.35 (9)	1.93 (49)	Pg 29	3/4 (19)	8.60 (3.90)
DRVP-25	1 1/4"	2.992 (76)	3.94 (100)	0.811 (20.6)	3.130 (79.5)	1.12 (28.5)	1.472 (37.4)	0.591 (15)	0.43 (11)	3.03 (77)	Pg 29	3/4 (19)	14.77 (6.70)
DRVP-30	1 1/2"	3.622 (92)	4.53 (115)	0.937 (23.8)	3.740 (95)	1.38 (35)	1.709 (43.4)	0.591 (15)	0.51 (13)	3.35 (85)	Pg 29	3/4 (19)	24.25 (11.0)

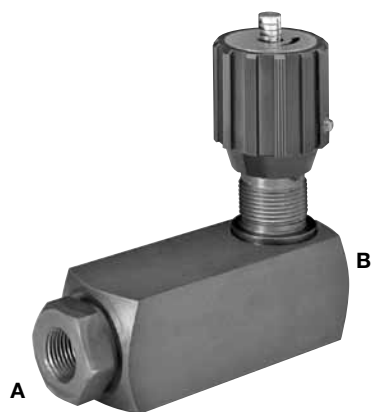
1) Only 4 mounting holes are used on sizes 06, 08, 10, & 12

2) Pg style thread per DIN 40430

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.)

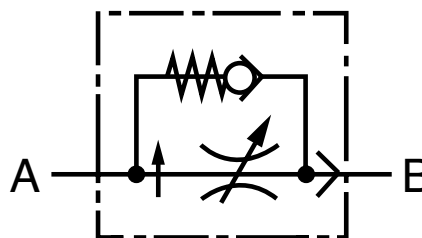
SRVR Series Pressure Compensated Flow Control Valves



Specifications

- 4 sizes, 1/4" - 3/4"
- Working Pressure:
Inlet: 102 psi min. / 3045 psi max.
Outlet: 0 psi min. / 2944 psi max.
- Flows to 24 gpm
- NPTF Connections
- Carbon Steel Housing
- FPM (Fluoroelastomer) O-Rings (standard)
- Color coded spindle for accurate flow control
- Provision for panel mounting
- Unique safety spindle design
- Temperature Range: -4° to 212°F at full pressure
- Viscosity Range: 13 SUS min. / 1781 SUS max.

Hydraulic Symbol



Model Code

Pressure Compensated Flow Control Valve
SRVR = Flow Control Valve (with internal check valve)

Nominal Size

	NPTF Only	
	Pipe Size	Pipe OD
08	= 1/4"	0.540"
10	= 3/8"	0.675"
12	= 1/2"	0.840"
16	= 3/4"	1.050"

Housing Material

01 = Carbon Steel

Modification Number

Port Configuration

0 = BSPP to DIN 3852, Part 2 -X
5 = NPTF (ANSI B1.20.3)

Supplementary Details

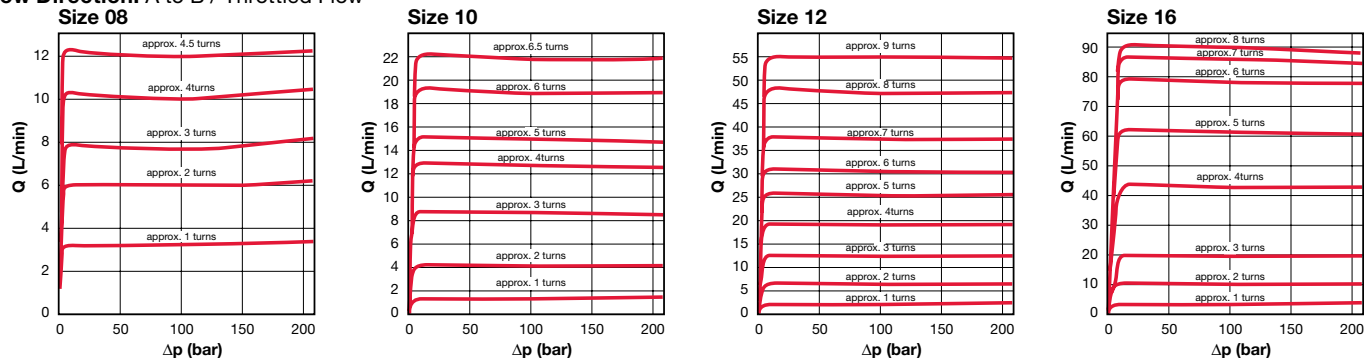
S = Panel Mounting Kit

SRVR - 08 - 01 .X / 5 - S

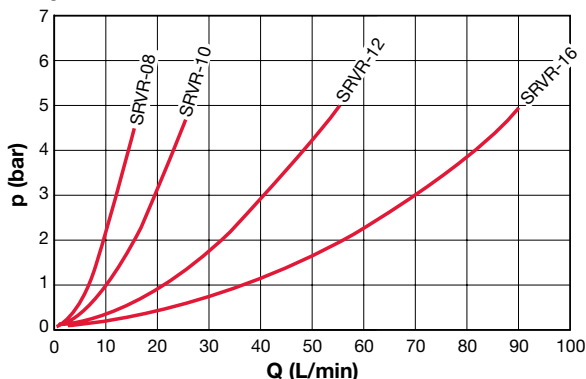
Model Codes containing selections listed in RED are non-standard items – Minimum quantities will apply – Contact HYDAC for information and availability
Not all combinations are available

Pressure Drop Curves

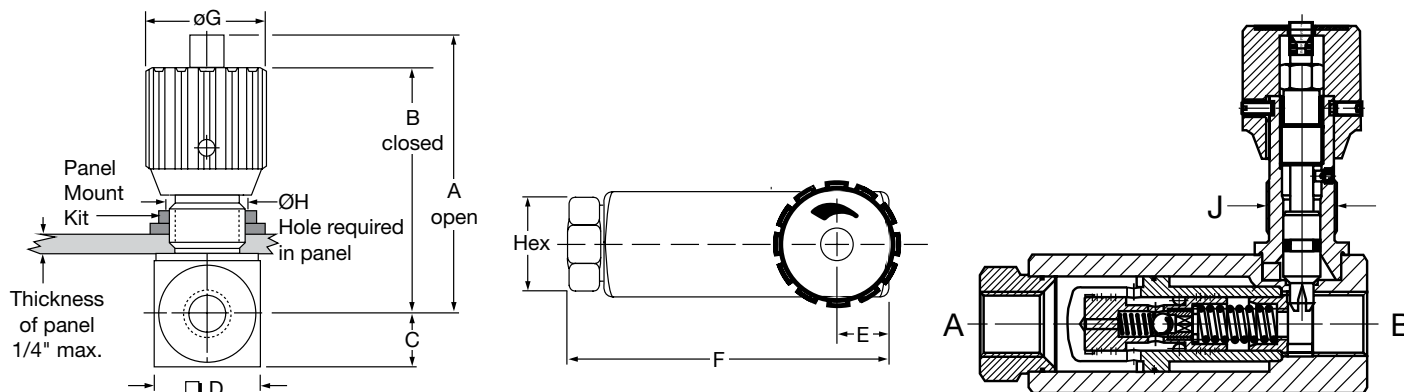
Flow Direction: A to B / Throttled Flow



Flow Direction: B to A / Free Flow Through Check Valve



Dimensions



Model Code	Size	A	B	C	D	E	F	Ø G	ØH	J ¹⁾ thread	Hex	Weight
SRVR-08	1/4" NPTF	2.91 (74)	2.64 (67)	0.59 (15)	1.18 (30)	0.69 (17.5)	3.62 (92)	1.14 (29)	0.75 (19)	Pg 11	0.94 (24)	1.3 (0.6)
SRVR-10	3/8" NPTF	3.62 (92)	3.23 (82)	0.69 (17.5)	1.38 (35)	0.71 (18)	4.13 (105)	1.50 (38)	0.91 (23)	Pg 16	1.06 (27)	2.0 (0.9)
SRVR-12	1/2" NPTF	4.17 (106)	3.78 (96)	0.89 (22.5)	1.77 (45)	0.83 (21)	4.92 (125)	1.50 (38)	0.91 (23)	Pg 16	1.26 (32)	3.8 (1.7)
SRVR-16	3/4" NPTF	4.27 (108.5)	3.88 (98.5)	0.98 (25)	1.97 (50)	1.02 (26)	5.51 (140)	1.50 (38)	0.91 (23)	Pg 16	1.61 (41)	4.9 (2.2)

Panel Mount Kits

Size	Model Code	Part Number
08	Kit Panel Mount DV08	00705310
10/12/16	Kit Panel Mount DV12	00705302

1) Pg style thread per DIN 40430

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.)

RV & RVP Series Check Valves



RV Series
Inline Mounting

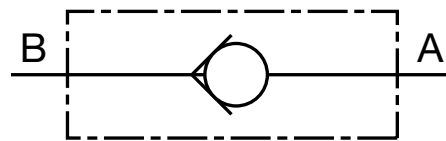


RVP Series
Manifold Mounting

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					

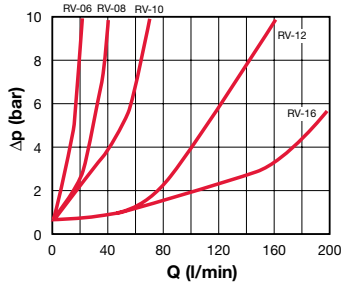
Note: Not recommended for high-cycle applications!

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

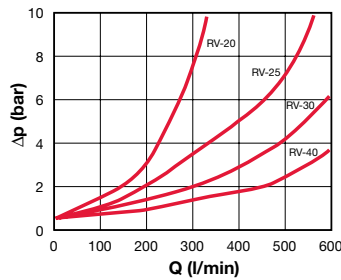
Pressure Drop Curves

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

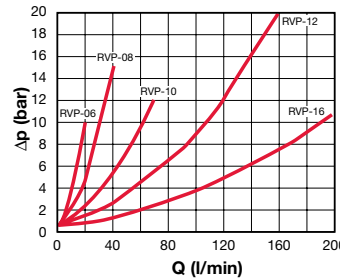
RV-06... to RV-16...



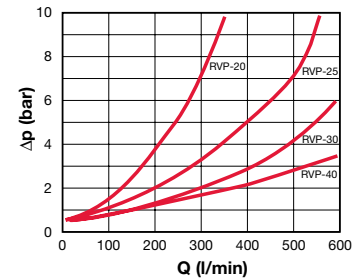
RV-20... to RV-40...



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



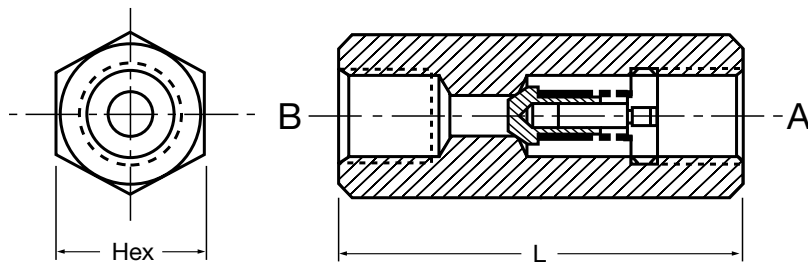
RVP-20... to RVP-40...



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	A	B	C	D	E	F ¹⁾	G	H	J	K	L	M	N	O	R	Wt.
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)	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)	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.)

DV, DRV, & RV Series

Stainless Steel Flow Control Valves - Available with BSPP Ports



DV Series
Inline Mounting
Needle Valves



DRV Series
Inline Mounting
Flow Control Valves



RV Series
Inline Mounting
Check valves

Model Code	Part Number	Dimensions
RV-06-30.X/0	00705859	Same as Standard Product See Page 53
RV-08-30.X/0	00705861	
RV-10-30.X/0	00705863	
RV-12-30.X/0	00705865	
RV-16-30.X/0	00705867	
RV-20-30.X/0	00705869	
RV-25-30.X/0	00705895	
RV-30-30.X/0	00707521	
DV-06-30.X/0	00705134	
DV-08-30.X/0	00705142	
DV-10-30.X/0	00705150	
DV-12-30.X/0	00705158	
DV-16-30.X/0	00705166	
DV-20-30.X/0	00705174	
DV-25-30.X/0	00707424	
DV-30-30.X/0	00705295	
DRV-06-30.X/0	00705634	Same as Standard Product See Page 47
DRV-08-30.X/0	00705642	
DRV-10-30.X/0	00705650	
DRV-12-30.X/0	00705658	
DRV-16-30.X/0	00705666	
DRV-20-30.X/0	00705674	

*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*