

DV & DVP Series

Needle Valves

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DV Series
Inline Mounting

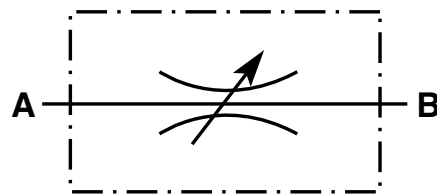


DVP Series
Manifold Mounting

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
- Size 16 and under, zinc plated
- Size 20 and up, phosphated

Hydraulic Symbol



Model Code

DV - 06 - 01 .X / 5 - S

Needle Valve

- DV = Inline Mounting
- DVP = Manifold Mounting
- DVE = Cartridge Valve

Nominal Sizes

DV & DVP	SAE (DV only)		NPTF (DV Only)		BSPP (DV Only)	
Nom. Size	Tube Size	Thread Size	Pipe Size	Pipe OD	Thread Size	
06	=		1/8"	0.405"	G1/8	
08	=	-4	7/16-20 UNF	1/4"	G1/4	
10	=	-6	9/16-18 UNF	3/8"	G3/8	
12	=	-8	3/4-16 UNF	1/2"	G1/2	
16	=	-12	1-1/16-12 UN	3/4"	G3/4	
20	=	-16	1-5/16-12 UN	1"	G1	
25	=	-20	1-5/8-12 UN	1-1/4"	G1 1/4	
30	=	-24	1-7/8-12 UN	1-1/2"	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

Housing Material

- 01 = Carbon Steel

Modification Number

Port Configuration

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

Supplementary Details

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

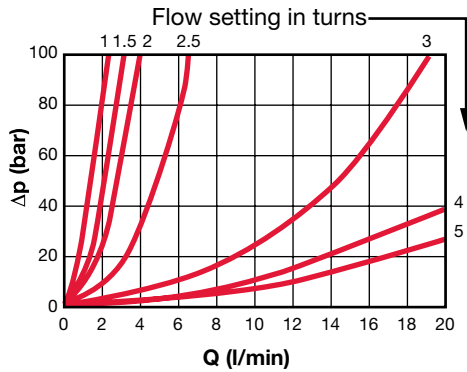
FLOW CONTROL VALVES

Pressure Drop Curves

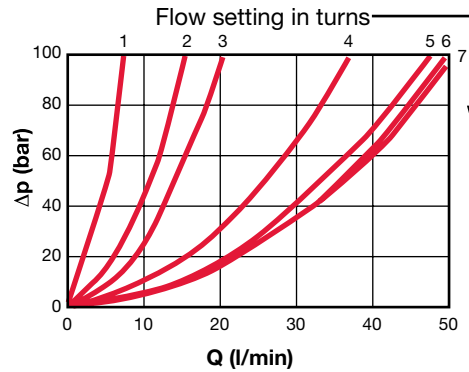
DV, DVP Series

Flow Direction: A to B / Throttled Flow

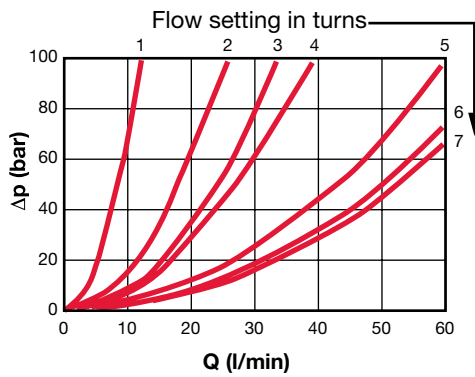
Size 06



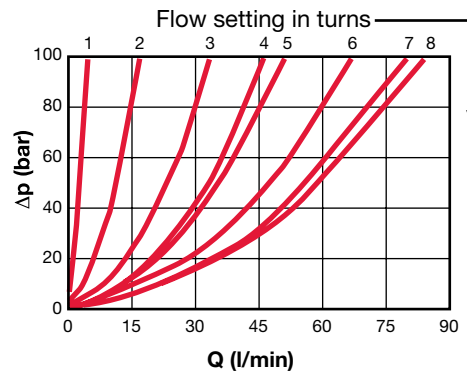
Size 08



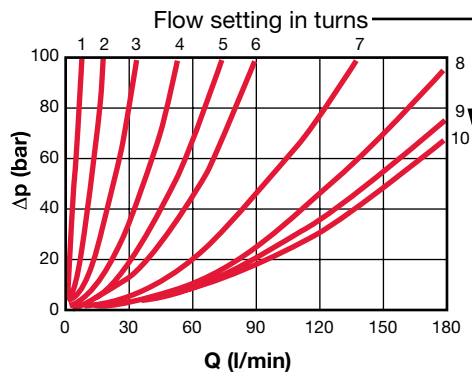
Size 10



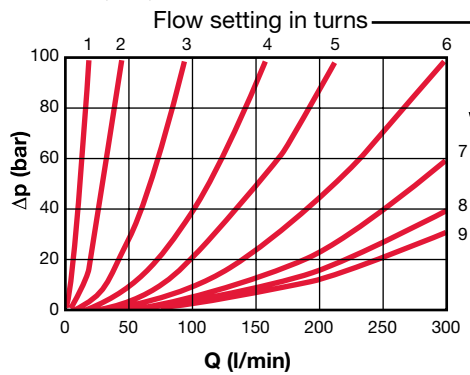
Size 12



Size 16



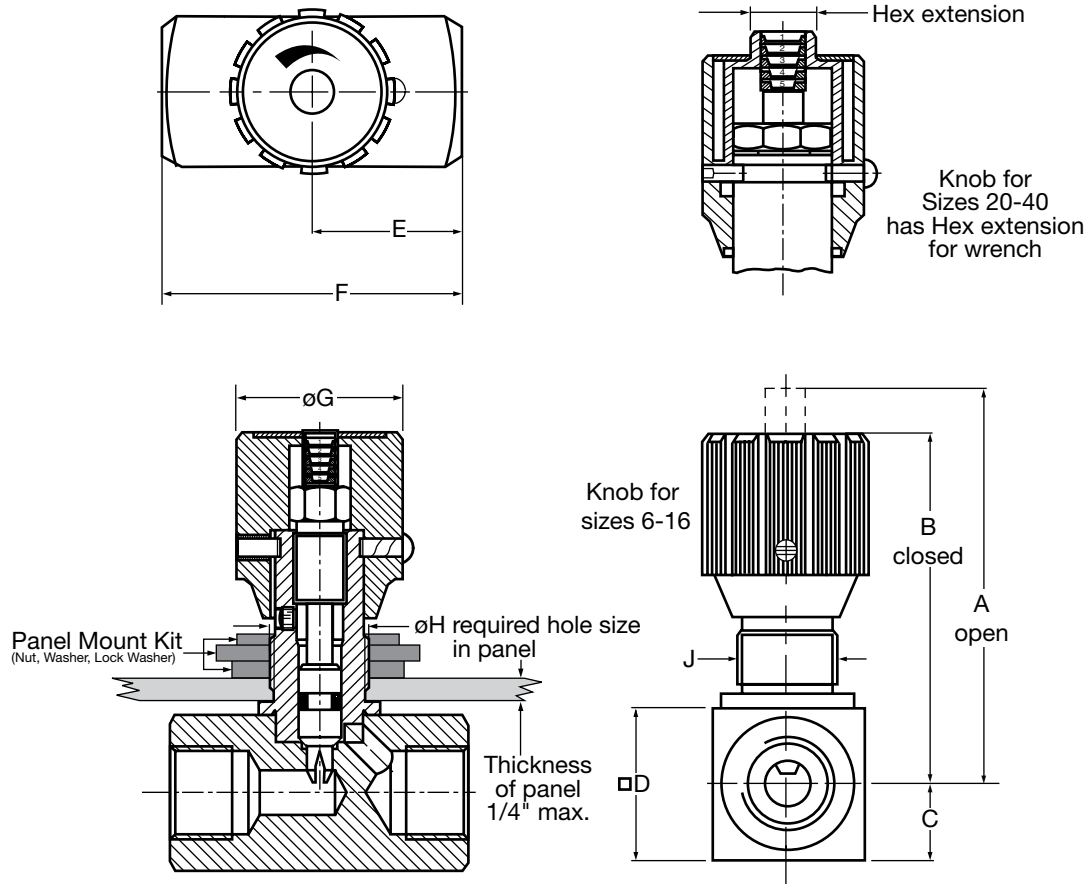
Size 20, 25, 30



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*	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)

*Pg style thread per DIN 40430

Notes:

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

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

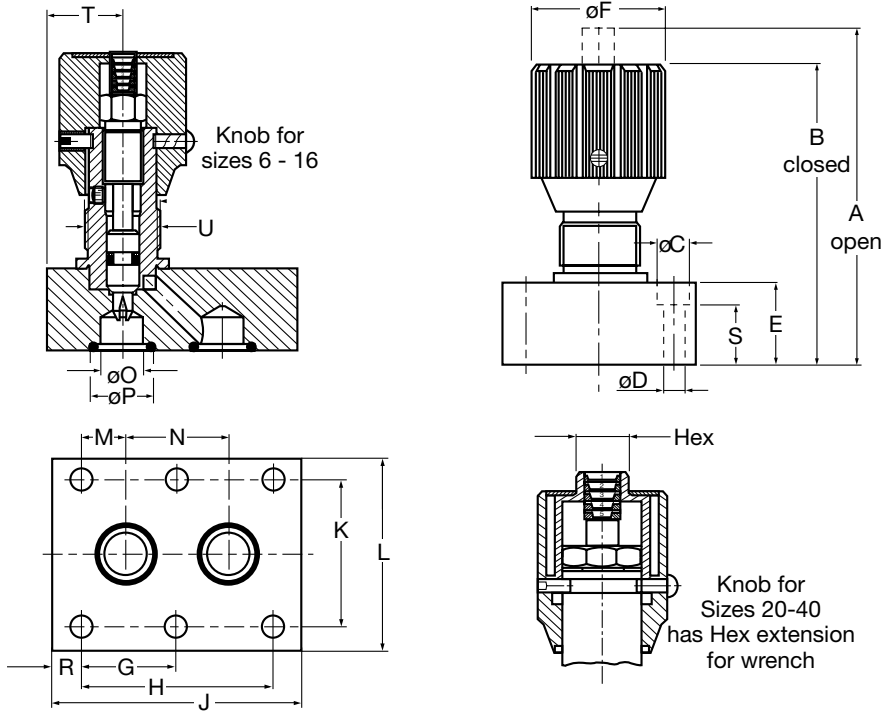
Panel Mount Kits

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

FLOW CONTROL VALVES

Dimensions

DVP Manifold Mount Needle Valve



Model Code	Nom. Size	A	B	øC	øD	E	øF	G*	H	J	K	L	M	N	øO	øP	R	S	T	U**	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)

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

**Pg style thread per DIN 40430

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