

General Description

Series MV high-precision metering and shut-off valves allow extremely close control of fluids used in actuating and governing equipment.

Operation

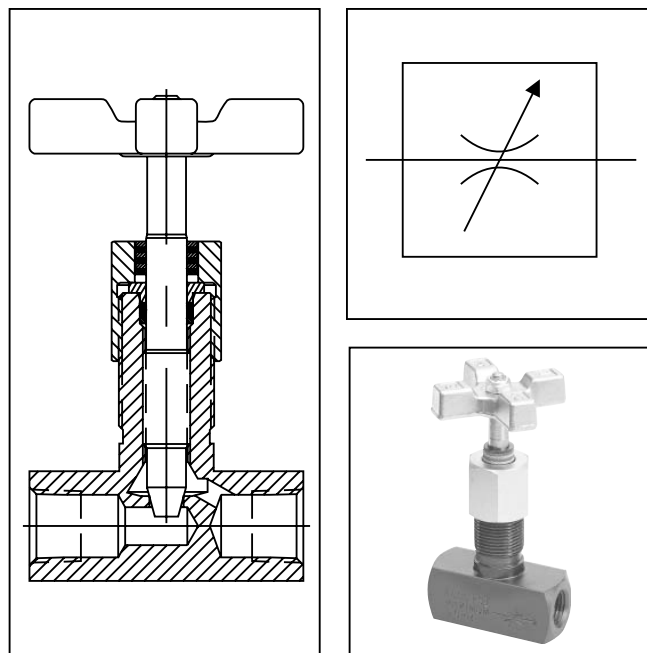
The standard needle allows fine adjustment at low flow by using the first three turns of the adjusting knob. The next three turns open the valve to full flow, and also provide standard throttling adjustments.

Features

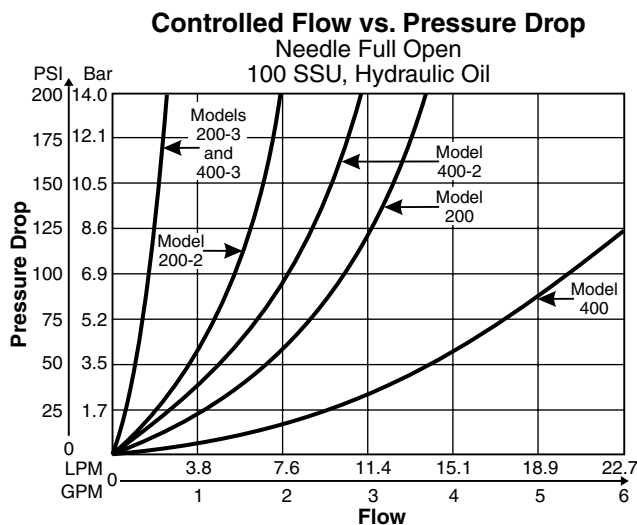
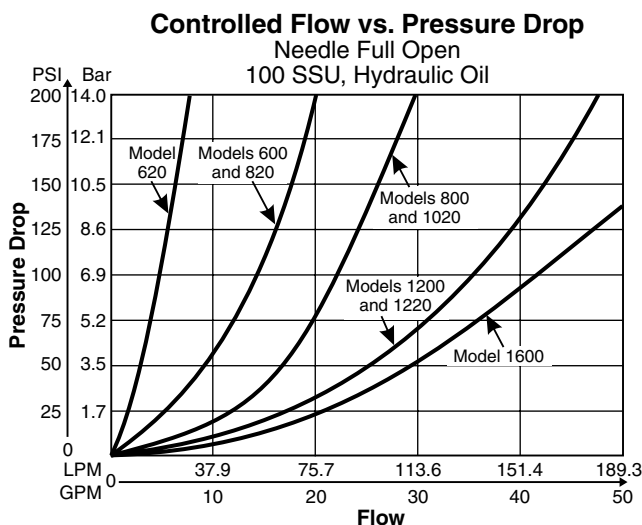
- The exclusive "Colorflow" color-band reference scale on the valve stem is a great convenience and time-saver in setting the valve originally and in returning it to any previous setting.
- Fine and Micro-fine needles available for extremely fine control.
- MVK mounting kit makes panel mounting simple.
- High efficiency o-ring stem seal that eliminates packing.

Specifications

Maximum Operating Pressure	<p>Brass: 140 Bar (2000 PSI); except for MV1600 brass which is 35 Bar (500 PSI)</p> <p>Steel: 413 Bar (6000 PSI) for MV261, 461, 661, 861.</p> <p>345 Bar (5000 PSI) for MV200, 400, 401, 420, 600, 601, 620, 800, 820, 1020, 1200, 1220.</p> <p>207 Bar (3000 PSI) for all other sizes and styles.</p>
Material	<p>Body: see ordering code</p> <p>Handle: Zinc alloy - Zinc chromate</p> <p>Needle: 416 Stainless Steel</p>
Operating Temperature	<p>-40°C to +121°C (-40°F to +250°F) Nitrile (standard)</p> <p>-26°C to +205°C (-15°F to +400°F) Fluorocarbon</p>



Performance Curves



Ordering Information

Options

Code	Description
Omit	NPTF/SAE
★ 8	BSPT
★★ 9	BSPP

★ Code 8 can be used with sizes 400, 600, 800 Steel only

★★ Code 9 can be used with sizes 200, 261, 400, 461, 600, 661, 800, 861, 1200, 1261, 1600

Series MV

Size

Code	Size	Code	Size
200 *	1/8"	661	3/8"
260	1/8"	681	#6 SAE
261	1/8"	800 *	1/2"
400 *	1/4"	820	#8 SAE
401	1/4"	860	1/2"
420	#4 SAE	861	1/2"
460	1/4"	1020	#10 SAE
461	1/4"	1200	3/4"
600 *	3/8"	1220	#12 SAE
601	3/8"	1261	3/4"
620	#6 SAE	1600	1"
660	3/8"	1620	#16 SAE

Material

Code	Description
B	Brass
S	Steel

Needle Options

Code	Description
Omit	Standard 30° Taper
2	Fine
3	Micro-fine

2 and 3 available only in Series 200, 400, 600 and 620.

Seal Compound

Code	Description
Omit	Nitrile (Standard)
V	Fluorocarbon

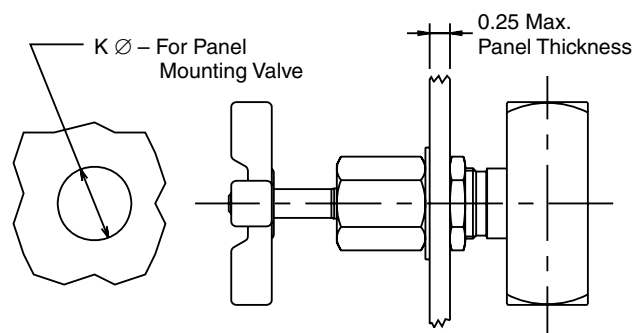
Design Series

NOTE: Not required when ordering.

* Sizes available in Brass
 00 is Female to Female
 01 is Female to Male
 6* is Right Angle
 60 is Male to Female
 61 is Female to Female

Model Number	Effective Orifice Area Max Flow LPM (GPM)	Control Flow in. ²	Effective Control Flow C _v
MV200	11 (3)	0.0107	0.244
MV420	11 (3)	0.0107	0.244
MV200-2	7 (1.8)	0.0053	0.121
MV200-3	2 (0.5)	0.0014	0.032
MV400	19 (5)	0.0216	0.493
MV620	19 (5)	0.0216	0.493
MV400-2	11 (2.8)	0.0081	0.186
MV400-3	2 (0.5)	0.0017	0.039
MV600	30 (8)	0.0567	1.294
MV820	30 (8)	0.0567	1.294
MV800	57 (15)	0.0845	1.930
MV1020	57 (15)	0.0845	1.930
MV1200	95 (25)	0.1400	3.205
MV1220	95 (25)	0.1400	3.205
MV-1600	151 (40)	0.1675	3.829
MV-1620	151 (40)	0.1675	3.829

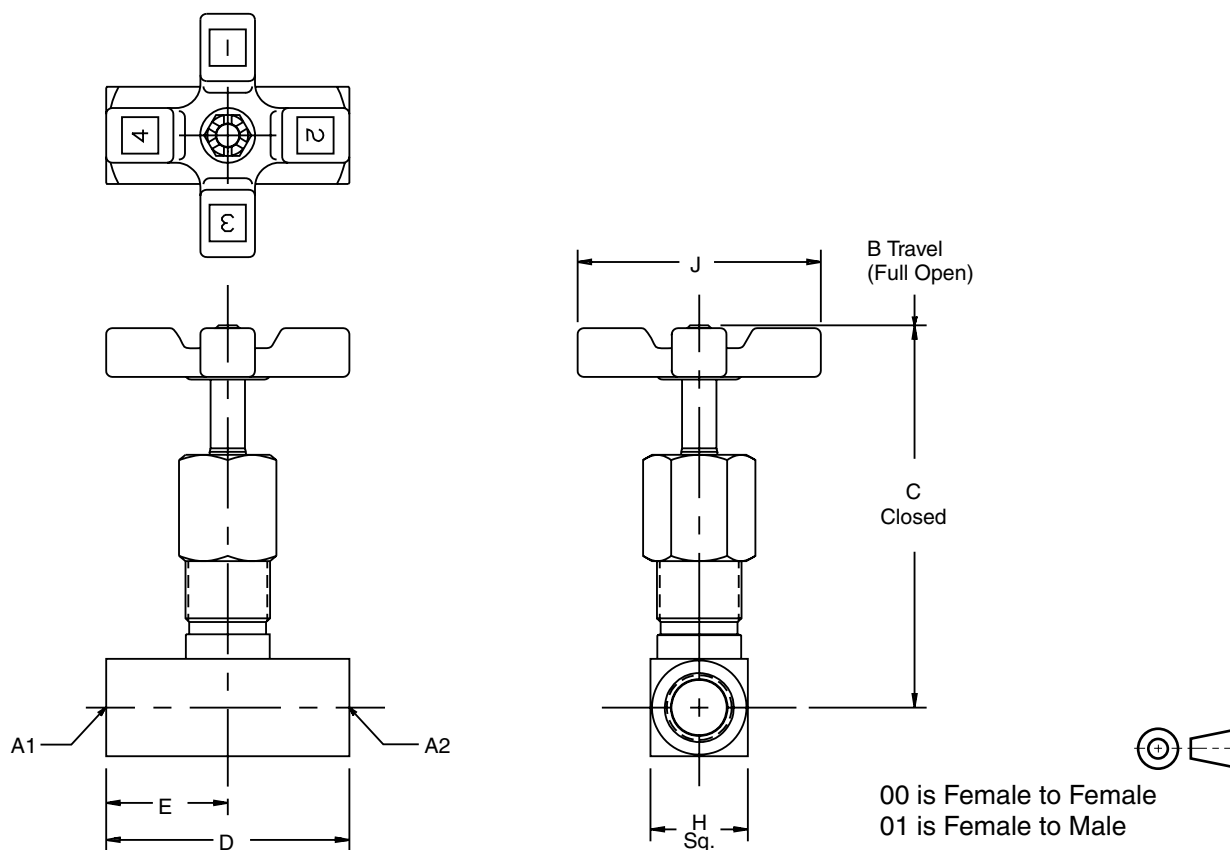
Mounting Kit



Panel Mounting Kits					
Kit Number	K	Valve Model	Kit Number	K	Valve Model
MVK2	15.0 (0.59)	MV200	MVK8	29.5 (1.16)	MV800
		MV260			MV861S
		MV261S			MV1020
		MV420	MVK12	35.8 (1.41)	MV1200
MVK4	19.8 (0.78)	MV400	MVK16	35.8 (1.41)	MV1261
		MV401			MV-1600 MV-1620
		MV460S			
		MV461S			
		MV620			
		MV681			
MVK6	23.1 (0.91)	MV600			
		MV601			
		MV660			
		MV661S			
		MV820			

Dimensions**Flow Control Valves
Series MV**

Inch equivalents for millimeter dimensions are shown in (**)



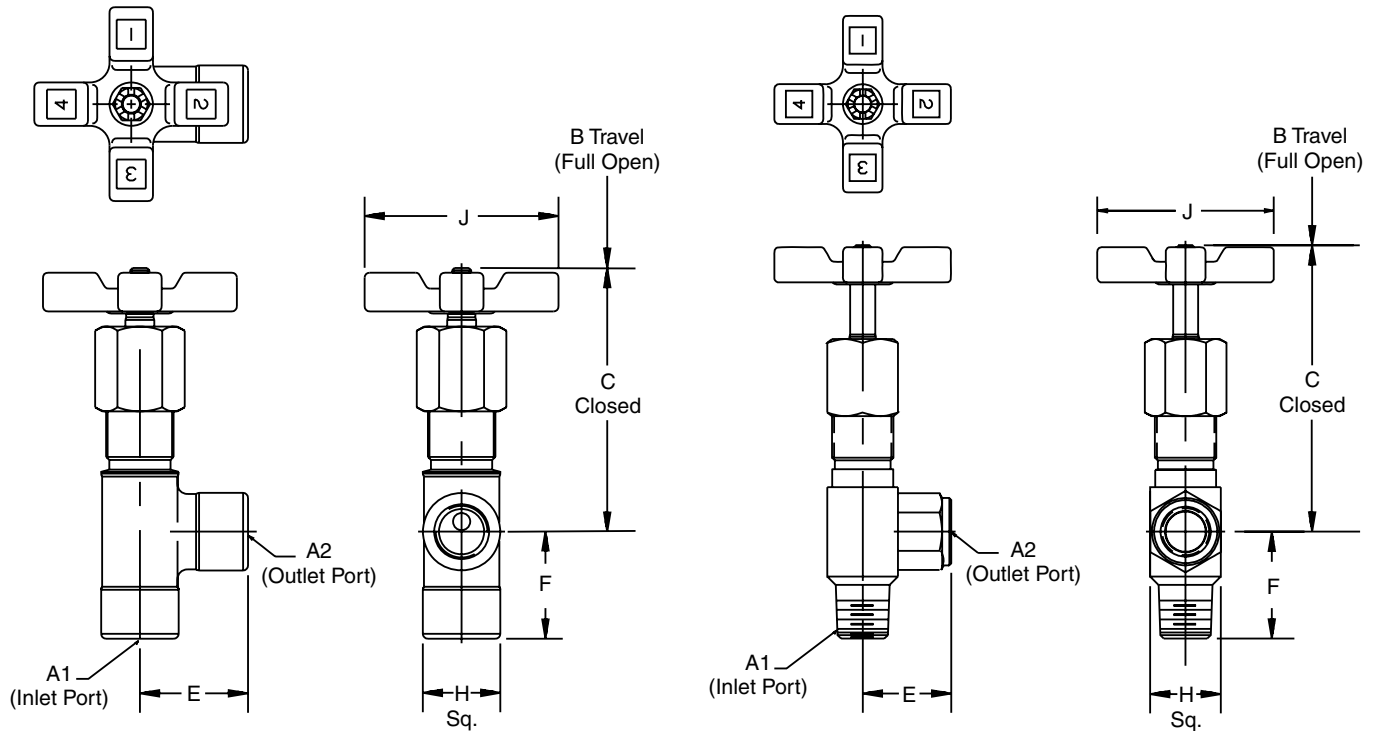
Model Number	Weight kg (lbs.)	A1	A2	B	C	D	E	F	H	J
MV200	0.1 (0.3)	1/8-27 NPTF Female	1/8-27 NPTF Female	69.1 (2.72)	63.8 (2.51)	38.1 (1.50)	19.1 (0.75)		15.7 (0.62)	44.5 (1.75)
MV400	0.3 (0.7)	1/4-18 NPTF Female	1/4-18 NPTF Female	86.9 (3.42)	81.5 (3.21)	50.8 (2.00)	25.4 (1.00)		20.6 (0.81)	50.8 (2.00)
MV401	0.3 (0.7)	1/4-18 NPTF Male	1/4-18 NPTF Female	86.9 (3.42)	81.5 (3.21)	55.4 (2.18)	30.0 (1.18)		20.6 (0.81)	50.8 (2.00)
MV620	0.5 (1.0)	9/16-18 UNF #6 SAE	9/16-18 UNF #6 SAE	89.2 (3.51)	83.8 (3.30)	60.5 (2.38)	30.2 (1.19)		25.4 (1.00)	50.8 (2.00)
MV600	0.5 (1.2)	3/8-18 NPTF Female	3/8-18 NPTF Female	99.6 (3.92)	91.9 (3.62)	63.5 (2.50)	31.8 (1.25)		25.4 (1.00)	63.5 (2.50)
MV601	0.5 (1.1)	3/8-18 NPTF Male	3/8-18 NPTF Female	99.6 (3.92)	91.9 (3.62)	68.1 (2.68)	36.3 (1.43)		25.4 (1.00)	63.5 (2.50)
MV820	0.5 (1.2)	3/4-16 UNF #8 SAE	3/4-16 UNF #8 SAE	108.7 (4.28)	101.1 (3.98)	76.2 (3.00)	38.1 (1.50)		28.4 (1.12)	63.5 (2.50)
MV800	1.0 (2.1)	1/2-14 NPTF Female	1/2-14 NPTF Female	129.3 (5.09)	116.6 (4.59)	66.5 (2.62)	33.3 (1.31)		31.8 (1.25)	82.6 (3.25)
MV1020	1.0 (2.1)	7/8-14 UNF #10 SAE	7/8-14 UNF #10 SAE	129.5 (5.10)	116.6 (4.59)	88.9 (3.50)	44.5 (1.75)		31.8 (1.25)	82.6 (3.25)
MV1200	1.6 (3.50)	3/4-14 NPTF Female	3/4-14 NPTF Female	141.8 (5.58)	127.8 (5.03)	82.6 (3.25)	41.1 (1.62)		38.1 (1.50)	98.6 (3.88)
MV1221	1.6 (3.50)	1 1/16-12 UNF #12 SAE	1 1/16-12 UNF #12 SAE	141.8 (5.58)	127.8 (5.03)	101.6 (4.00)	50.8 (2.00)		38.1 (1.50)	98.6 (3.88)
MV1600	1.9 (4.20)	1-11 1/2 NPTF Female	1-11 1/2 NPTF Female	146.8 (5.78)	132.8 (5.23)	108.0 (4.25)	53.8 (2.12)		44.5 (1.75)	98.6 (3.88)

An optional MVK mounting kit makes panel mounting quite simple.

2502-G1.p65, dd



Inch equivalents for millimeter dimensions are shown in (**)



61 is Female to Female

60 is Male to Female

G

Model Number	Weight kg (lbs.)	A1	A2	B	C	D	E	F	H	J
MV260	0.1 (0.3)	1/8-27 NPTF Male	1/8-27 NPTF Female	72.4 (2.85)	67.1 (2.64)		19.1 (0.75)	22.1 (0.87)	15.7 (0.62)	44.5 (1.75)
MV460	0.3 (0.7)	1/4-18 NPTF Male	1/4-18 NPTF Female	90.2 (3.55)	84.8 (3.34)		27.2 (1.07)	30.7 (1.21)	20.6 (0.81)	50.8 (2.00)
MV660	0.5 (1.2)	3/8-18 NPTF Male	3/8-18 NPTF Female	110.7 (4.36)	103.1 (4.06)		31.8 (1.25)	34.8 (1.37)	25.4 (1.00)	63.5 (2.50)
MV860	0.9 (2.0)	1/2-14 NPTF Male	1/2-14 NPTF Female	133.4 (5.25)	120.7 (4.75)		36.8 (1.45)	42.7 (1.68)	31.8 (1.25)	82.6 (3.25)
MV261	0.1 (0.3)	1/8-27 NPTF Female	1/8-27 NPTF Female	93.98 (3.70)	60.7 (2.39)		26.9 (1.06)	26.9 (1.06)	17.5 (0.69)	44.5 (1.75)
MV461	0.3 (0.6)	1/4-18 NPTF Female	1/4-18 NPTF Female	86.1 (3.39)	76.4 (3.01)		33.5 (1.32)	31.2 (1.23)	22.3 (0.88)	50.8 2.00
MV661	0.5 (1.2)	3/8-18 NPTF Female	3/8-18 NPTF Female	98.04 (3.86)	86.4 (3.40)		38.3 (1.51)	35.0 (1.38)	25.4 (1.00)	63.5 (2.50)
MV861	1.0 (2.1)	1/2-14 NPTF Female	1/2-14 NPTF Female	118.3 (4.66)	106.9 (4.21)		43.43 (1.71)	40.3 (1.59)	29.4 (1.16)	82.6 (3.25)
MV1261	1.6 (3.5)	3/4-14 NPTF Female	3/4-14 NPTF Female	146.8 (5.78)	132.8 (5.23)		44.5 (1.75)	41.1 (1.62)	38.1 (1.50)	98.6 (3.88)

An optional MKV mounting kit makes panel mounting quite simple.