



Series
3MSV

Compact 3-Way Ball Valve

3-Way Blow-Out-Proof Ball & Stem

DIMENSIONS (IN [MM])

Model	End Connection Type	Inlet Size	Outlet Size	Orifice	A	B1	B2	C	D	E	F
3MSV-XD110	Fractional Tube Fitting	1/8	1/8	.093 [2.36]	2.49 [63.25]	1.24 [31.50]	1.24 [31.50]	1.42 [36.07]	.38 [9.65]	1.27 [32.26]	.94 [23.88]
3MSV-XD220	Fractional Tube Fitting	1/4	1/4	.125 [3.18]	2.68 [68.07]	1.34 [34.04]	1.34 [34.04]	1.52 [38.61]	.38 [9.65]	1.27 [32.26]	.94 [23.88]
3MSV-XD230	Fractional Tube Fitting	1/4	1/4	.187 [4.75]	3.26 [82.80]	1.63 [41.40]	1.63 [41.40]	1.82 [46.23]	.44 [11.18]	1.71 [43.43]	1.06 [26.92]
3MSV-XD340	Fractional Tube Fitting	3/8	3/8	.250 [6.35]	3.38 [85.85]	1.69 [42.93]	1.69 [42.93]	1.88 [47.75]	.44 [11.18]	1.71 [43.43]	1.06 [26.92]
3MSV-XD440	Fractional Tube Fitting	1/2	1/2	.250 [6.35]	3.60 [91.44]	1.80 [45.72]	1.80 [45.72]	1.99 [50.55]	.44 [11.18]	1.71 [43.43]	1.06 [26.92]
3MSV-XD450	Fractional Tube Fitting	1/2	1/2	.437 [11.10]	4.30 [109.22]	2.15 [54.61]	2.15 [54.61]	2.54 [64.52]	.75 [19.05]	2.21 [56.13]	1.51 [38.35]
3MSV-XD550	Fractional Tube Fitting	3/4	3/4	.437 [11.10]	4.30 [109.22]	2.15 [54.61]	2.15 [54.61]	2.54 [64.52]	.75 [19.05]	2.21 [56.13]	1.51 [38.35]
3MSV-XF120	Female NPT	1/8	1/8	.125 [3.18]	2.30 [58.42]	1.15 [29.21]	1.15 [29.21]	1.33 [33.78]	.38 [9.65]	1.27 [32.26]	.94 [23.88]
3MSV-XF240	Female NPT	1/4	1/4	.250 [6.35]	3.16 [80.26]	1.58 [40.13]	1.58 [40.13]	1.77 [44.96]	.44 [11.18]	1.71 [43.43]	1.06 [26.92]
3MSV-XF340	Female NPT	3/8	3/8	.250 [6.35]	4.03 [102.36]	2.01 [51.05]	2.01 [51.05]	2.41 [61.21]	.75 [19.05]	2.21 [56.13]	1.51 [38.35]
3MSV-XF450	Female NPT	1/2	1/2	.437 [11.10]	4.03 [102.36]	2.01 [51.05]	2.01 [51.05]	2.41 [61.21]	.75 [19.05]	2.21 [56.13]	1.51 [38.35]

The Series 3MSV Compact 3-Way Ball Valves are the perfect choice for directional control of fluid in instrumentation and process systems. The micro finished ball and PTFE seats ensure quality seal and easy operation. The straight through flow path design allows for minimal pressure drop. The valve body comes in either brass or 316 stainless steel, offering a variety of options. Blow-out-proof ball and stem provides extra durability and safety in the event of over pressure.

SPECIFICATIONS

Service: Gases and liquids compatible with wetted materials.

Wetted Materials:

Body, connector: 316 SS or brass;

Stem, ball: 316 SS;

Stem O-ring, connector O-ring, back-up rings: Fluoroelastomer;

Ball seats: PTFE.

Pressure Limits: 1500 psig (103 bar).

Temperature Limit: -40 to 350°F (-40 to 176°C).

Connections: Female NPT, fractional tube fitting.

Valve Body	Connection Type	Inlet Size	Outlet Size	Orifice in (mm)	Model
Brass	Fractional Tube Fitting	1/8"	1/8"	0.093 (2.36)	3MSV-BD110
		1/4"	1/4"	0.125 (3.18)	3MSV-BD220
		3/8"	3/8"	0.187 (4.75)	3MSV-BD230
		3/8"	3/8"	0.250 (6.35)	3MSV-BD340
		1/2"	1/2"	0.250 (6.35)	3MSV-BD440
	Female NPT	3/4"	3/4"	0.437 (11.10)	3MSV-BD450
		3/4"	3/4"	0.437 (11.10)	3MSV-BD550
		1/8"	1/8"	0.125 (3.18)	3MSV-BF120
		1/4"	1/4"	0.250 (6.35)	3MSV-BF240
		3/8"	3/8"	0.250 (6.35)	3MSV-BF340
316 Stainless Steel	Fractional Tube Fitting	1/2"	1/2"	0.437 (11.10)	3MSV-BF450
		1/8"	1/8"	0.093 (2.36)	3MSV-SD110
		1/4"	1/4"	0.125 (3.18)	3MSV-SD220
		3/8"	3/8"	0.187 (4.75)	3MSV-SD230
		3/8"	3/8"	0.250 (6.35)	3MSV-SD340
	Female NPT	1/2"	1/2"	0.250 (6.35)	3MSV-SD440
		1/2"	1/2"	0.437 (11.10)	3MSV-SD450
		3/4"	3/4"	0.437 (11.10)	3MSV-SD550
		1/8"	1/8"	0.125 (3.18)	3MSV-SF120
		1/4"	1/4"	0.250 (6.35)	3MSV-SF240
Female NPT	3/8"	3/8"	0.250 (6.35)	3MSV-SF340	
	3/8"	3/8"	0.250 (6.35)	3MSV-SF340	
	1/2"	1/2"	0.437 (11.10)	3MSV-SF450	

Handle Position	Flow Path	Diagram
Right	B-C	
Left	B-A	
Straight	All closed	