



## MSCV40 and MSCV41 Control Valve

The MSCV40 is a low pressure, full port, dump valve. It features balanced plug control trim with a quick opening characteristic and an adjustable topworks. The MSCV40's full port allows for high flow rates, and its standard soft seat design gives a consistent leak free shut off when the valve closes. The MSCV41 offers the same great features, but with an open yoke design.

Both the MSCV40 and MSCV41 can be ordered with a metal to metal seat. The metal seat version comprises an unbalanced hex shaped plug to avoid sand build up between the plug and cage.

The MSCV40 and MSCV41 can be used for discharging liquid or gas from separators, treaters, knockouts or other vessels. It can also be used for back pressure regulation when paired with a MSPC48 pressure controller making it a great economical choice for a variety of low pressure applications.

MSCV40 REVERSE



MSCV41 DIRECT



### Specifications

Sizes: 2", 3" and 4"

Connections: Female NPT, Flanged

Body Type: Globe, Angle

Soft Seat Trim:

Trim Characteristic: Quick Open

Trim Size: Full Port and Reduced Port (1 Size Down)

Trim Type: Balanced

Metal Seat Trim:

Trim Characteristic: Modified Percent

Trim Size: 1.00", 1.75"

Trim Type: Unbalanced

Pressure Rating:

500 psi - 2" NPT

250 psi - 2" Flanged

250 psi - 3" & 4" Flanged & NPT

Temperature Range: -20° F to 400° F

Actuator Sizes: #35, #70 (Open Yoke Only)

Input Signal Range: 3-15 or 6-30 psi

Materials:

Body: Ductile Iron

Bonnet and Plug: Nickel Plated Carbon Steel

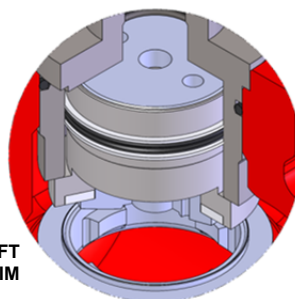
Bonnet Flange: Carbon Steel

Seat: 304 Stainless Steel

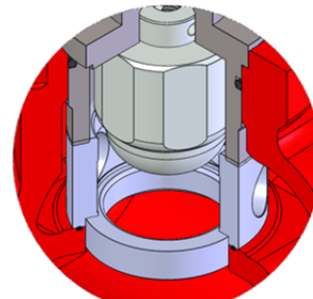
Stem: 304 Stainless Steel

Actuator Housing: Carbon Steel

Bolting: A193 B7



BALANCED SOFT SEAT TRIM



UNBALANCED METAL SEAT TRIM (SEVERE SERVICE)

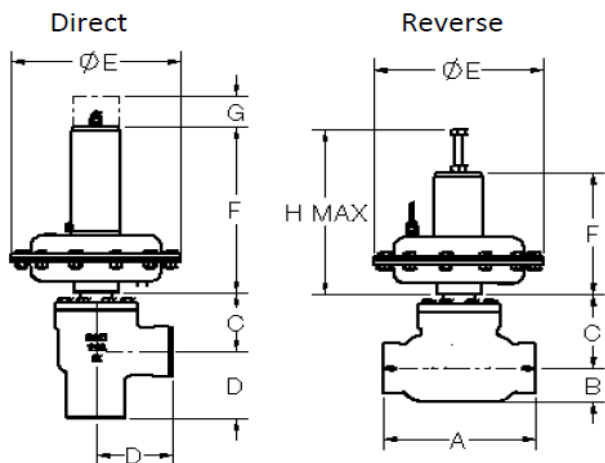
## Dimensions & Weight

End Connection	Body Dimension														
	2"					3"					4"				
	Globe			Angle		Globe			Angle		Globe			Angle	
	A	B	C	C	D	A	B	C	C	D	A	B	C	A	B
NPT	8.50	2.13	4.72	3.77	4.38	12.00	3.00	6.51	3.88	5.50	15.00	3.75	7.16	4.96	6.50
150 RFF	9.00	2.13	4.72	3.77	4.25	12.19	3.00	6.50	3.88	5.50	15.13	3.75	7.16	4.96	6.50

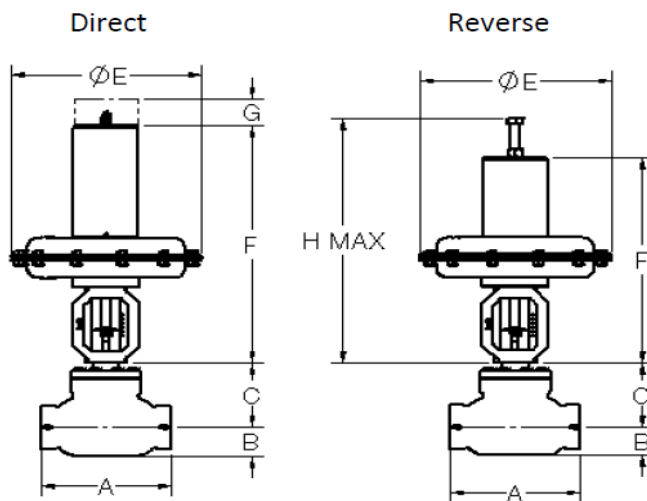
Actuator Size	Actuator Dimensions (in)									
	Direct					Reverse				
	E	F (CV40)	F (CV41)	G		E	F (CV40)	F (CV41)	H (CV40)	H (CV41)
No. 35, 3-15	9.50	10.50	16.04	5.50		9.50	7.75	13.38	9.70	15.33
No. 35, 6-30	9.50	12.12	17.66	7.00		9.50	9.62	15.25	10.70	16.33
No. 70, 3-15	12.00	12.09	15.00	7.00		12.50	9.62	15.25	12.57	18.20
No. 70, 6-30	12.00	15.41	20.95	10.00		12.50	11.37	17.00	14.33	19.96

G= Clearance needed for spring cover removal.

**MSCV40**



**MSCV41**



End Connection	Valve Weights with No. 35 Actuator											
	2"				3"				4"			
	Globe		Angle		Globe		Angle		Globe		Angle	
	Lbs	kg	Lbs	kg	Lbs	kg	Lbs	kg	Lbs	kg	Lbs	kg
CV40 NPT	48	22	51	23	69	31	56	25	111	50	85	39
CV40 ANSI 150	58	26	54	24	85	39	74	34	113	51	103	47
CV41 NPT	55.5	29.5	58.5	30.5	76.5	38.5	63.5	32.5	118.5	57.5	92.5	46.5
CV41 ANSI 150	65.5	33.5	61.5	31.5	92.5	46.5	81.5	41.5	120.5	58.5	110.5	54.5

End Connection	Valve Weights with No. 70 Actuator											
	2"				3"				4"			
	Globe		Angle		Globe		Angle		Globe		Angle	
	Lbs	kg	Lbs	kg	Lbs	kg	Lbs	Kg	Lbs	kg	Lbs	kg
CV40 NPT	63	28.8	66	29.8	84	37.8	71	31.8	126	56.8	100	45.8
CV40 ANSI 150	73	32.8	69	30.8	100	45.8	89	40.8	128	57.8	118	53.8
CV41 NPT	70.5	36.3	73.50	37.3	91.5	45.3	78.5	39.3	133.5	64.3	107.5	53.3
CV41 ANSI 150	80.5	40.3	76.5	38.3	107.5	53.3	96.5	48.3	135.5	65.3	125.5	61.3

## How to Order

Example Model No. MSCV40-2NGR33-TR

MSCV40 Series Dump Valve, 2" Globe Body, Threaded Ends, No.35 Reverse Act, 3-15 Spring, Viton Seat, Reduced Port

**MSCV40 - 2 N G R 3 3 - T R**

<b>Style</b>			
CV40 - Close Coupled		CV41 - Open Yoke	
CV40U - Unbalanced Metal Seat, CV41U - Unbalanced Metal Seat,			
<b>Body Size</b>			
2 - 2"		3 - 3"	4 - 4"
<b>Connection</b>			
N - NPT		F - RFF	
<b>Body Type</b>			
G - Globe Body		A - Angle Body	
<b>Actuator</b>			
D - Direct (Fail Open)		R - Reverse (Fail Close)	
<b>Actuator Size</b>			
3 - #35		7 - #70	
<b>Spring</b>			
3 - 3-15 psi		6 - 6-30 psi	
<b>Seat Material</b>			
T - Teflon		M - Metal (Unbalanced only)	
<b>Trim Size</b>			
Balanced/ Soft Seat		F - Full Port	R - Reduced Port
Unbalanced/ Metal Seat	2" Valve	8 - 1.00"	14 - 1.75"
	3" Valve	22 - 2.75"	



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