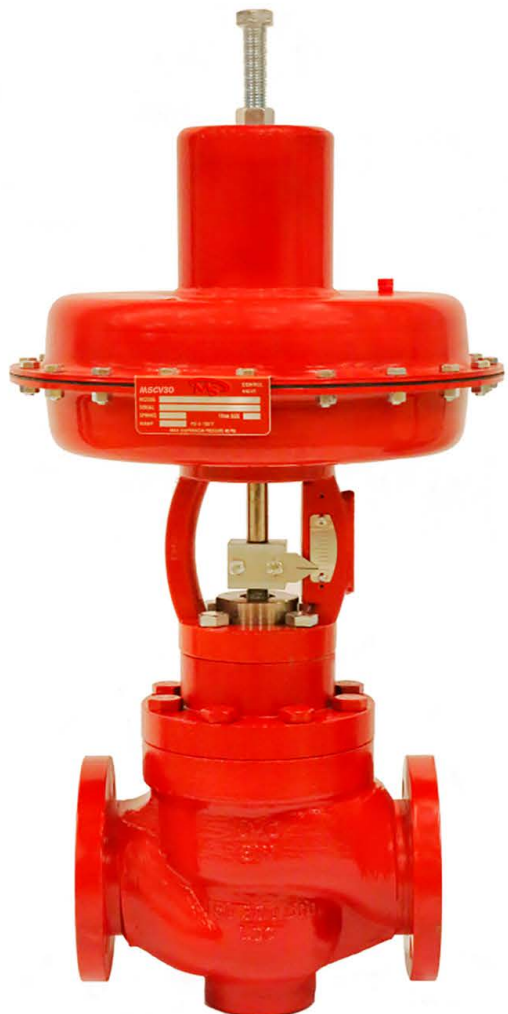




Materials:

Body: WCC Steel, LCC (Low Temp Option)
Packing Plug: A105 Steel with Nickel Plating, A350 LF2 with Nickel Plating (Low Temp Option)
Trim:
Plug Ring: D2 Tool Steel (Standard), 316 Stainless (Optional), Carbide (Optional)
Plug Tip, Seat Ring: D2 Tool Steel, 316 Stainless (Optional)
Seat: Polyurethane, Low Temp HNBR (Optional)
Cage, Plug, and Stem: 316 Stainless
Actuator Housing: Carbon Steel
Yoke: A395 Ductile Iron
Bolting: A193 B7

MSCV30 Control Valve

The MSCV30 is a reliable, full port control valve in a compact package featuring balanced plug control trim for excellent throttling or on/off control of fluids. The adjustable top works are designed to save space while leaving enough room to mount a controller. The soft seat design achieves repeatable bubble tight shut-off while remaining out of the flow path. The MSCV30 is ideally suited for a wide range of application such as pressure control, level control.

The MSCV30 is available in a variety of material options and trim sizes. A NACE option is available for sour services. The CV30 can also be ordered with a metal to metal seat.

Specification

Sizes: 2", 3", 4" and 6"

Connections: Female NPT (2" Only), Flanged

Body Type: Globe

Trim Characteristic: Modified % (Throttling)

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

Seat Types: Soft Seat with Metal to Metal Backup or Metal to Metal Hard Seat

Pressure Rating: See Table

Temperature Range: -50° F to 300° F (-46° C to 149° C)

Shutoff: ANSI Class VI

Actuator Sizes:

2" CV30 - #70 (70 in² area)

3" CV30 - #120 (120 in² area)

4" CV30 - #120 (120 in² area)

6" CV30 - #120 (120 in² area)

Actuator Spring Ranges: 3-15 psi, 6-30 psi

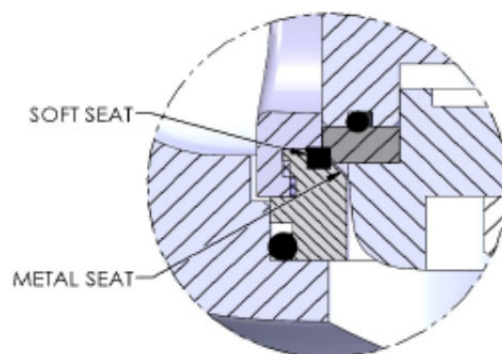
Actuator Action: Reverse (Fail Close) & Direct (Fail Open)

Stem Travel:

2" CV30 - 1.00in

3" CV30 - 1.42in

4" CV30 - 1.76in



CV Values

Body Service	Trim Service (in)	Valve Opening (% Travel)									
		10	20	30	40	50	60	70	80	90	100
2 inch	1.5	0.8	3.6	6.6	9.2	16.5	23.5	26.2	27.4	29.3	29.8
	2.0	0.8	3.5	8.4	16.6	25.5	31.5	36.0	41.1	46.0	47.7
3 inch	2.0	6.9	8.8	9.7	11.0	18.6	33.9	42.5	49.1	50.0	50.1
	3.0	4.4	6.0	11.7	33.1	37.3	68.0	76.5	99.3	108.0	117.9
4 inch	3.0	4.2	10.3	17.0	22.4	27.3	44.6	70.3	89.3	106.0	111.3
	4.0	10.3	14.1	16.4	29.9	64.7	97.9	104.4	120.6	145.4	155.0
6 inch	4.0	11.8	22.4	33	75.2	124.2	159.4	189	218.8	224.6	229.2
	6.0	21.6	44.0	93.0	183.0	262.4	292.0	317.4	348.2	378.5	390.6

Pressure Ratings

Body Size	2" NPT	150# Flange	300# Flange	600# Flange	900# Flange	1500# Flange
2 inch	3900 PSI	285 PSI	740 PSI	1480 PSI	2200 PSI	3750 PSI
3 inch	-	285 PSI	740 PSI	1480 PSI	2200 PSI	3750 PSI
4 inch	-	285 PSI	740 PSI	1480 PSI	2200 PSI	3750 PSI
6 inch	-	285 PSI	740 PSI	1480 PSI	-	-

Materials

Components	Standard	NACE Compliant	Low Temp	Low Temp NACE
Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A352 LCC	ASTM A352 LCC
Actuator	ASTM 395	ASTM A395	ASTM A395	ASTM A395
Bonnet	ASTM A105	ASTM A105	ASTM A350 LF2	ASTM A350 LF2
Packing Plug	ASTM A105	ASTM A105	ASTM A350 LF2	ASTM A350 LF2
Stem	316 Stainless	316 Stainless	316 Stainless	316 Stainless
Cage	316 Stainless	316 Stainless	316 Stainless	316 Stainless
Plug	316 Stainless	316 Stainless	316 Stainless	316 Stainless
Seat Ring	ASTM A681 D2	316 Stainless	ASTM A681 D2	316 Stainless
Plug Ring	ASTM A681 D2	316 Stainless	ASTM A681 D2	316 Stainless
Seat Tip	ASTM A681 D2	316 Stainless	ASTM A681 D2	316 Stainless
Packing Spring	17-4 PH Stainless	Inconel X-750	17-4 PH Stainless	Inconel X-750
Diaphragm	Nitrile	Nitrile	Nitrile	Nitrile
Packing	PTFE	PTFE	PTFE	PTFE
O-Rings	Nitrile	Viton	Low Temp HNBR	Low Temp HNBR
Soft Seat Insert	Polyurethane	HNBR	Low Temp HNBR	Low Temp HNBR

Service Recommendations

Plug Ring Material	Service	Do Not Use In
D2 Tool Steel	Abrasive Service	Sour Service, CO ² , Steam
316 Stainless	Corrosive Service, NACE, Steam	Abrasive/Erosive Service
Tungsten Carbide	Corrosive Service, Abrasive, Steam	

Dimensions & Weight

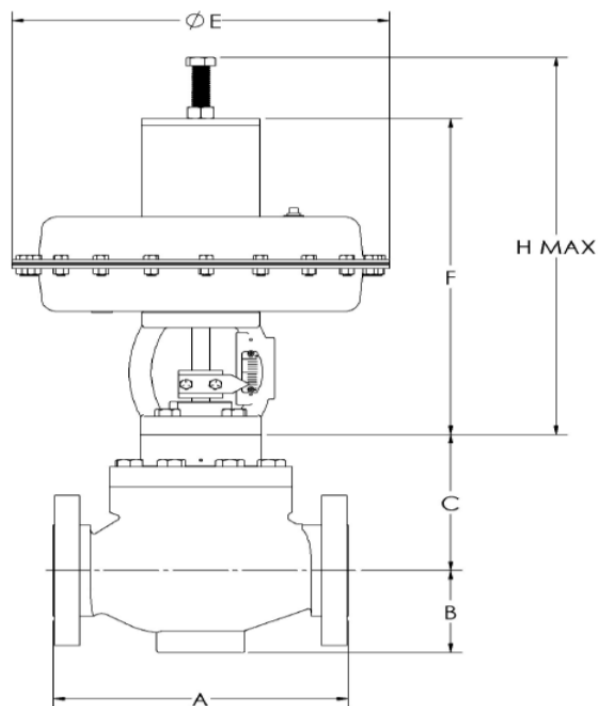
End Connections	Body Dimensions (in)											
	2" Globe Body			3" Globe Body			4" Globe Body			6" Globe Body		
	A	B	C	A	B	C	A	B	C	A	B	C
NPT	11.25	3.50	6.05	-	-	-	-	-	-	-	-	-
150 RF	10.0	3.50	6.05	11.75	4.50	7.45	13.88	5.62	6.18	17.75	7.60	11.46
300 RF	10.5	3.50	6.05	12.50	4.50	7.45	14.50	5.62	6.18	18.62	7.60	11.46
600 RF	11.25	3.50	6.05	13.25	4.50	7.45	15.50	5.62	6.18	11.46	7.60	11.46
600 RTJ	11.38	3.50	6.05	13.38	4.50	7.45	15.63	5.62	6.18	20.13	7.73	11.59
900 RF	13.38*/14.75	3.50	3.50	15.50	4.50	7.45	17.00	6.00	6.18	-	-	-
900 RTJ	13.51/14.88	3.63	3.63	15.63	4.63	7.58	17.13	6.13	6.31	-	-	-
1500 RF	13.38*/14.75	3.50	3.50	-	-	-	-	-	-	-	-	-
1500 RTJ	13.51/14.88	3.63	3.63	-	-	-	-	-	-	-	-	-

*Short Pattern Body Dimension

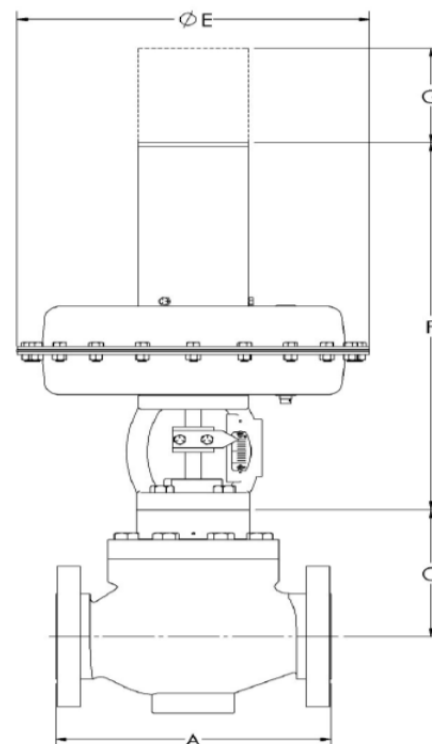
Actuator Size	Actuator Dimensions (in)					
	Direct			Reverse		
	E	F	G	E	F	H
No. 70, 3-15	12.50	17.10	8.00	12.50	14.77	17.45
No. 70, 6-30	12.50	20.06	8.00	12.50	16.37	19.45
No. 120	16.00	21.54	8.90	16.00	17.30	20.67

G= Clearance needed for spring cover removal.

End Connections	Valve Weights							
	2" Globe		3" Globe		4" Globe		6" Globe	
	lbs	kgs	lbs	kgs	lbs	kgs	lbs	kgs
NPT	90	41	-	-	-	-	-	-
ANSI 150	95	43	184	84	272	123	450	204
ANSI 300	98	45	194	88	290	132	481	218
ANSI 600	103	47	200	91	312	142	558	253
ANSI 900	130	59	224	101	336	152	-	-
ANSI 1500	130	59	-	-	-	-	-	-



Reverse



Direct

How to Order

Example Model No. MSCV30-2N50R73-1CB-1F

MSCV30 Series Control Valve, 2" Globe Body, Threaded Ends, No.70 Reverse Acting Actuator, 3-15 Spring, Standard Service, Carbon Steel with Buna Seals, Tool Steel Seat with Polyurethane Insert, Full Port

MSCV30 - 2 N 50 R 73 - 1 C B - 1 F

Body Size			
2 - 2" Globe	3 - 3" Globe	4 - 4" Globe	6 - 6" Globe
Connection			
N - NPT (2" Valve Only)	F - RFF	J - RTJ	
Class			
50 - NPT (3900psi)	30 - 300	90 - 900	94* - 900
10 - 150	60 - 600	15 - 1500	
Actuator			
D - Direct (Fail Open)	R - Reverse (Fail Close)		
Actuator Size			
7 - #70 (2" Body Only)	2 - #120 (3", 4", 6" Bodies)		
Spring			
3 - 3-15 psi	6 - 6-30 psi		
Service			
1 - Standard	2 - NACE (Trim Options 2 and 4)		
Body Material			
C - Carbon Steel	L - Low Temp Carbon Steel		
Seals			
B - Buna	V - Viton®	L - Low Temp HNBR	
A - Aflas (Amine)	H - Kalrez (High Temp)		
Trim (Plug Ring/Plug Tip/Seat Ring/Seat)			
1 - D2/Polyurethane Seat (Standard Service)	2 - 316 SST/Low Temp HNBR Seat (NACE)		
3 - Carbide/D2/D2/Polyurethane Seat	4 - Carbide/316 SST/316 SST/Low Temp HNBR Seat (NACE)		
5 - 316 SST/Metal Seat			
Trim Size			
F - Full Port	R - Reduced Port		
Plug Type			
Blank - Balanced Trim	U - Unbalanced Metal Seat Trim		

Repair Kits Available

*2" - 900 flanged valve is available in a short or long body.
To order a short body with 13.38 Face to Face specify 90
To order a long body with 14.75 Face to Face specify 94



MARIA LOURDES CABALLERO 5319
COLONIA ANDRES CABALLERO
ESCOBEDO, NUEVO LEON 66080
Tel: 011528183983450
Fax: 011528183983153