

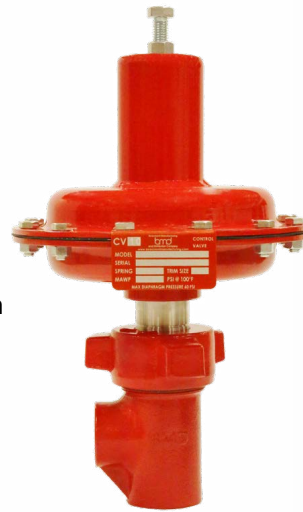
Control Dump Valves CV10S & CV15S Models

The CV10S and CV15S control valves are compact, cage-guided valves also known as dump valves. They are ideally suited for a wide range of applications such as pressure control, level control and flow control. Typical installations include separators, scrubbers, wellheads and other production equipment.

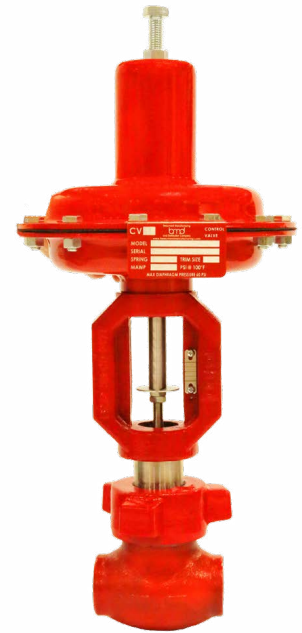
The CV10S is a close-coupled design, and the CV15S is an open-yoke design.

The hammer union makes maintenance easy by allowing the topworks to be removed without taking the valve out of line. This feature reduces the amount of time needed to inspect and replace the valve trim.

The valves are available in a variety of material options and different trim sizes. A NACE option is also available for sour service.



CV10S



CV15S

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Specifications

Sizes: 1"

Connections: Female NPT

Body Type: Globe, angle

Trim Characteristic: Quick open, modified % (throttling)

Trim Size: 0.25", 0.375" (3/8"), 0.50", 0.75" and 1.00"

Pressure Rating:

4000 psi (-50° F to 200° F), 3755 psi at 400° F

Temperature Range:

CV10 (close coupled): -50° F to 200° F (-46° C to 93° C)

CV15 (open yoke): -50° F to 400° F (-46° C to 204° C)

Shutoff: ANSI Class IV

Actuator Sizes: No. 35 (35 in² area), non-adjustable

Input Signal Ranges: 3-15 psi, 6-30 psi

Materials:

Body: LCC

Packing Plug: Nickel-plated, A105 steel

A350 LF2 (low-temp option)

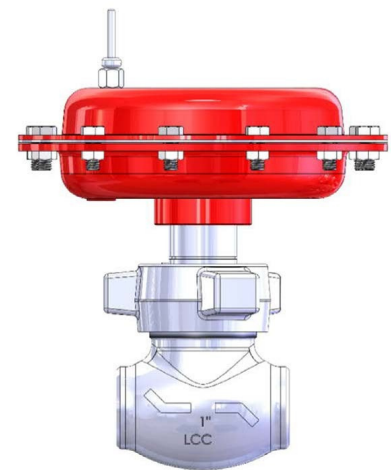
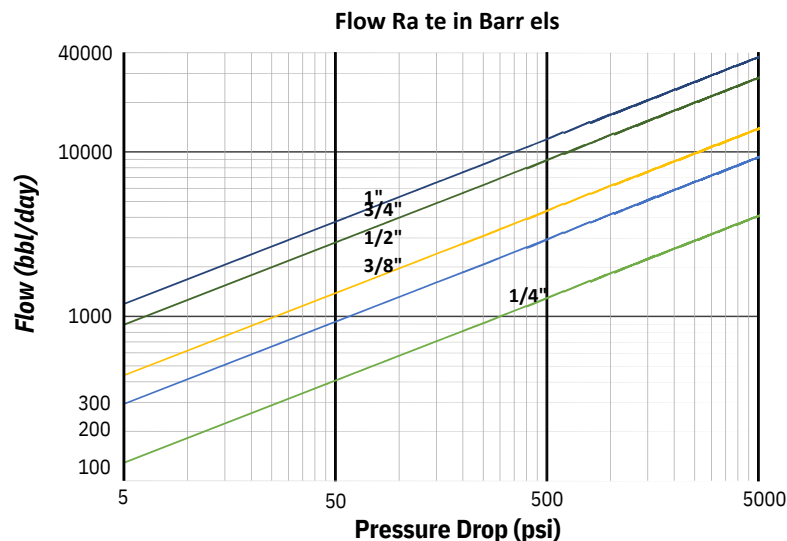
Hammer Nut: A105 steel, A350 LF2 (low-temp option)

Trim: 17/4 stainless, carbide (optional)

Actuator Housing: Carbon steel

Yoke: A395 ductile iron

Flow Rates



CV10S with
Non-Adjustable Housing

Cv Valves

Body Size	Orifice Size (in.)	Body Style / Valve Opening (% Travel)												
		Modified Percent											Quick Open	
		Globe Body											Angle Body	Globe Body
		10	20	30	40	50	60	70	80	90	100	100	100	100
1 Inch	0.25	0.284	0.506	0.657	0.767	0.875	0.989	1.10	1.20	1.32	1.40	1.64	1.68	1.92
	0.375	0.311	0.621	0.942	1.28	1.64	2.07	2.51	2.93	3.35	3.70	4.23	3.82	4.34
	0.50	0.502	1.05	1.59	2.09	2.61	3.14	3.72	4.27	4.96	5.62	6.61	5.70	6.72
	0.75	0.882	1.760	2.760	3.82	4.93	6.17	7.49	8.85	10.00	11.00	15.10	11.60	15.20
	1.00	1.01	2.02	3.44	5.07	6.78	8.42	10.3	12.4	14.3	15.4	20.8	15.5	20.9

Shut-Off Pressures

Maximum Shut-Off Pressures For Reverse-Acting (fail closed) Actuator

Trim Size (in.)	Flow Direction	Signal to No. 35 Actuator			
		3-15 Spring		6-30 Spring	
		3-15 psig	0-20 psig	6-30 psig	0-35 psig
0.25	Up	3800		4000	4000
0.375		2050		3280	3410
0.50		1100		1680	1830
0.75		320		560	690
1.00		110		220	320
0.25	Down	4000		4000	4000
0.375		4000		4000	4000
0.50		3350		4000	4000
0.75		1580		2300	2530
1.00		770		1100	1240

Maximum Shut-Off Pressures For Direct-Acting (fail open) Actuator

Trim Size (in.)	Flow Direction	Signal to No. 35 Act.		Flow Direction	Signal to No. 35 Act.1	
		3 -15 Spring	6 -30 Spring		3 -15 Spring	6 -30 Spring
0.25	Up	4000		Down	4000	4000
0.375		2700			4000	4000
0.50		1370			3800	4000
0.75		410			1750	1940
1.00		140			860	940

1 Controller supply must have at least 5 psi beyond the signal pressure required.

Maximum Shut-Off Pressures For Non-Adjustable Actuators

Trim Size (in.)	Flow Direction	Signal to No. 35 Act.		Flow Direction	Signal to No. 35 Act.2	
		Reverse Acting	Direct Acting1		Reverse Acting	Direct Acting1
0.25	Up	4000		Down	4000	4000
0.375		2700			4000	4000
0.50		1800			2500	2600
0.75		600			1250	750
1.00		120			720	400

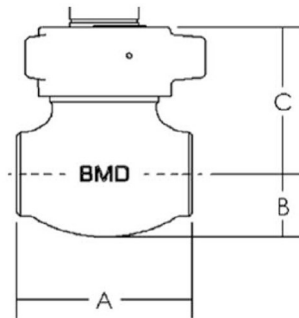
1 Controller supply must have at least 5 psi beyond the signal pressure required.

2 .25 psi minimum supply required.

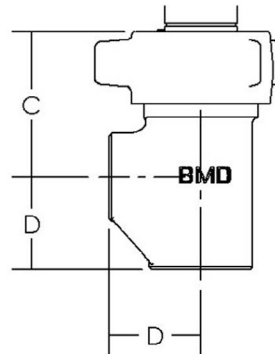
Dimensions

Body Dimension					
End Connection	1" Globe Body			1" Angle Body	
	A	B	C	C	D
NPT	4.44	1.59	3.70	3.51	2.22

1" Globe



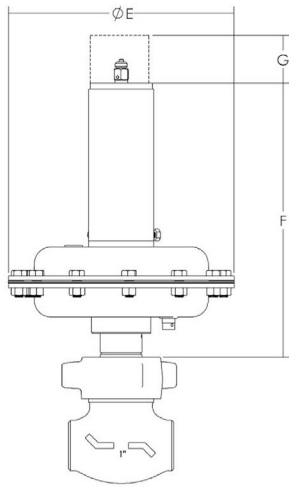
1" Angle



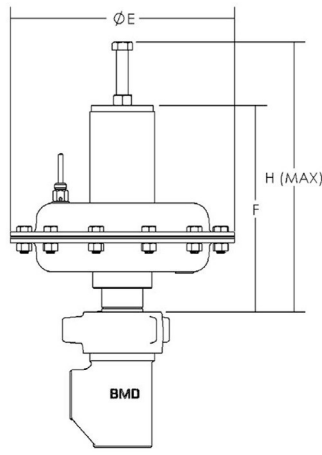
CV10S and CV15S Actuator Dimensions (in.)									
Actuator Size	Direct				Reverse				
	EF (CV10) ¹	F (CV15)	G	E	F (CV10)	F (CV15)	H (CV10)	H (CV15)	
No. 35, 3-15	9.50	11.51	17.14	5.50	9.50	8.76	14.39	10.91	16.54
No. 35, 6-30	9.50	13.13	18.76	7.00	9.50	10.63	16.26	11.91	17.54
Non-Adjustable	9.50	4.55	10.18	-	9.50	4.55	10.18	7.30	12.90

¹Height required to remove spring cover.

CV10S

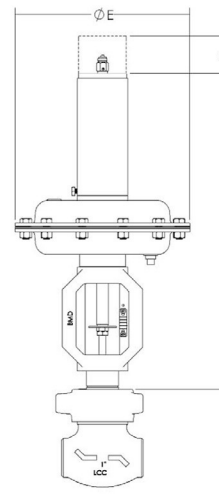


Direct

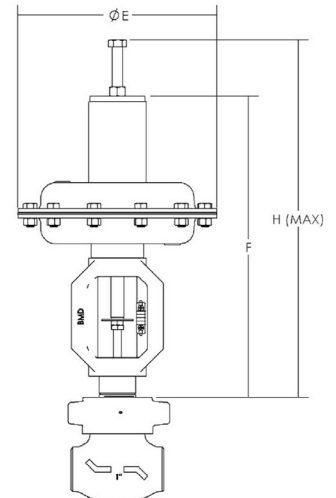


Reverse

CV15S

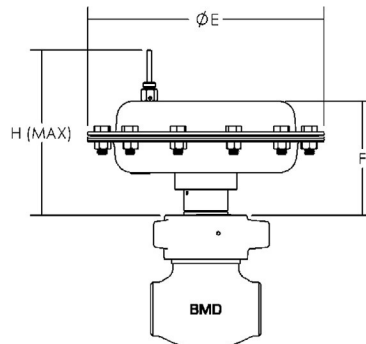


Direct



Reverse

Non-Adjustable Reverse



Weights

End Connection	Valve Weights with No. 35 Actuator			
	1" Globe		1" Angle	
	lb	kg	lb	kg
NPT	24	10.8	24	10.8

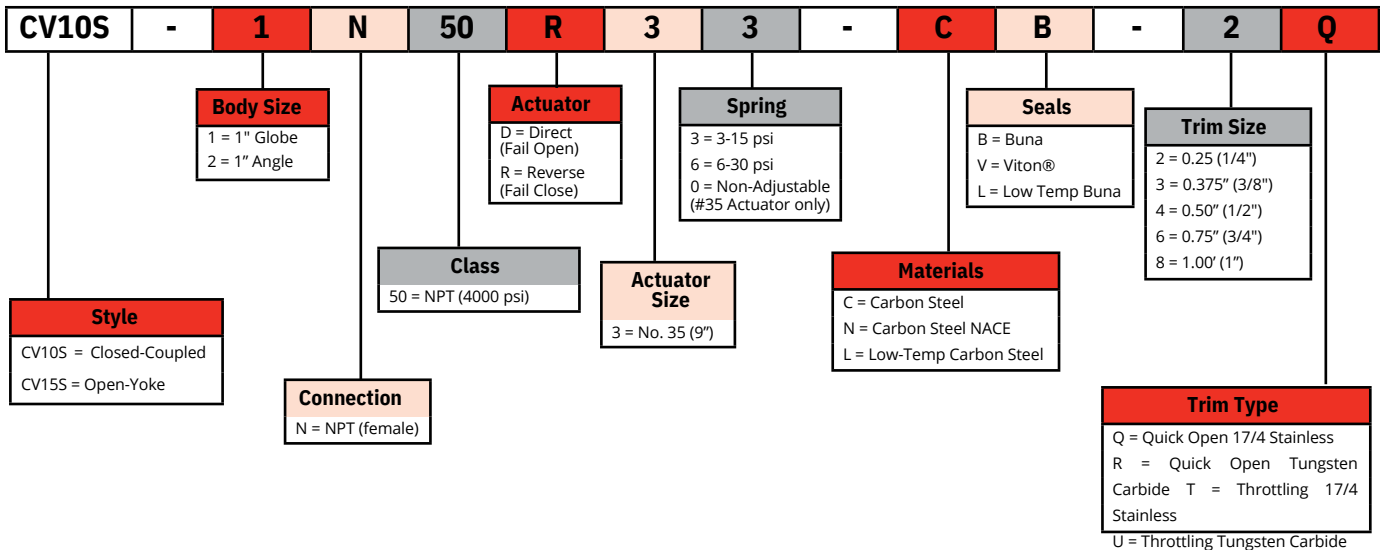
End Connection	Valve Weights with Non-Adjustable Actuator			
	1" Globe		1" Angle	
	lb	kg	lb	kg
NPT	23	10.4	22	9.9

How to Order

Options are listed below. All configurations may not be available. Call your sales representative or FW Murphy for more information. Repair kits are available.

Example Model No. **CV10S-1N50R33-CB-2Q**

CV10S Series Dump Valve, 1" Globe Body, Threaded Ends, No. 35 Reverse Act, 3-15 Spring, Carbon Steel with Buna Seals, 0.25" Quick Open SST Trim



FW Murphy is the exclusive BMD distributor for new equipment packages.



CONTACT

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