Globe Control Valve

Specifications

Sizes:	1/2" – 4"
Materials:	PVC, PP, PVDF and PTFE
Model:	Flanged (ANSI)
Stem Seal:	PTFE Bellows
Valve Seal:	Viton®†, EPDM, PTFE encapsulated Viton®
Flow Char.:	Linear or equal percentage
Rangeability:	1: 50 for 1/2" – 3", 1: 30 for 4"
Temp. Range:	PVC 41 – 140° F, PP -5 – 175° F PVDF -5 – 265° F, PTFE -5 – 300° F

† Trademark of E. I. du Pont de Nemours and Company

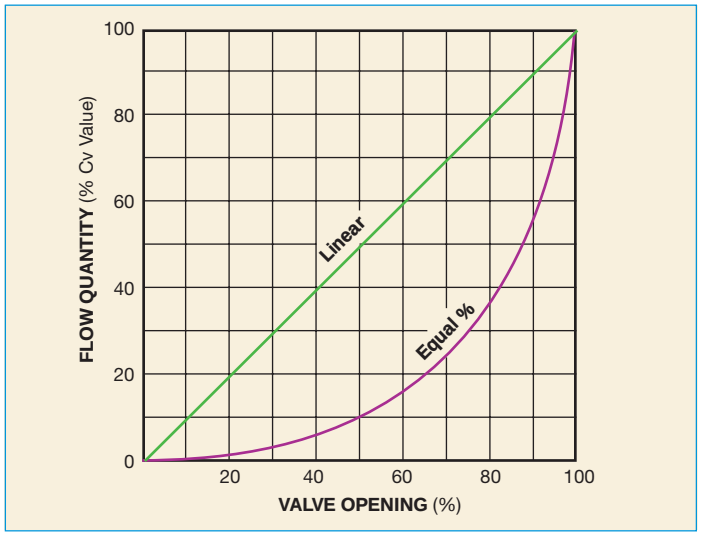
Standard Features

- Very accurate flow control
- Solid thermoplastic valve bodies provide excellent corrosion resistance
- Unique PTFE bellows stem seal obliterates packing glands and minimizes maintenance
- Plug and seat can be changed for a variety of valve coefficients (Cv)
- Plug (trim) can be characterized (linear or equal percentage) per requirements
- Extremely corrosion resistant, polyester glassfilled Diaphragm Type Actuator
- Maximum air pressure 90 psi
- Accepts 3-15 psi direct up to 1" valve size

Options

- Positioner (single acting, 90 psi, input signals 3 - 15 psi or 4 - 20mA)
- 4-20mA output

Characteristics



Parts List (Sizes 1/2" – 4")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Pneumatic Actuator	1	Polyester Glass Filled
2	Actuator Spring	1	Coated Steel
3	Diaphragm	1	Nitrile
4	Actuator Valve Stem	1	Stainless Steel
5	Air Connection	1	1/4" Female NPT
6	Actuator Standoffs	2	Stainless Steel
7	Position Indicator	1	Nylon Coated
8	Bellows Seal O-Ring	1	Viton® , EPDM
9	Bellows Housing	1	PVC, PP, PVDF, PTFE
10	Body O-Ring	1	Viton® , EPDM
11	Bellows	1	PTFE
12	Seat O-Ring	1	Viton®, Hypalon®
13	Valve Seat	1	PVC, PP, PVDF, PTFE
14	Valve Plug	1	PVC, PP, PVDF, PTFE
15	Valve Body	1	PVC, PP, PVDF, PTFE

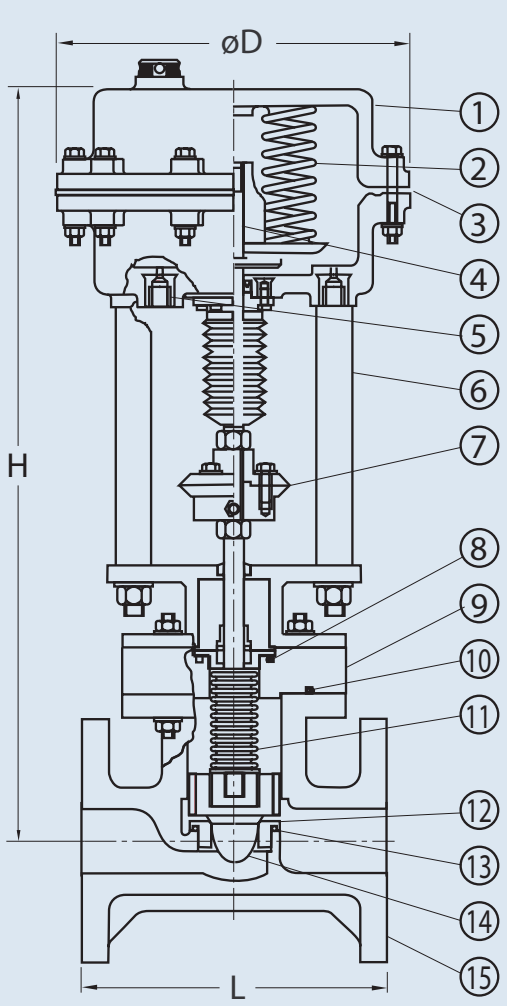
Sample Specification

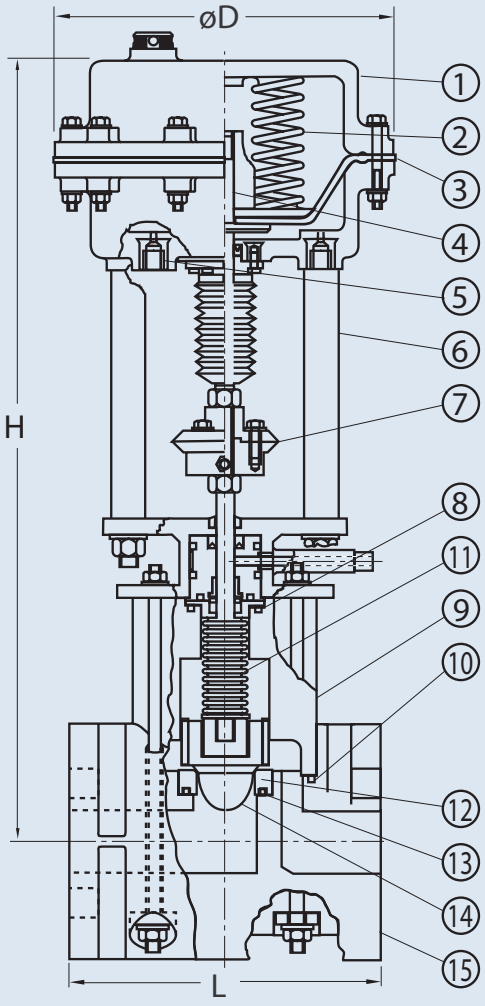
All Thermoplastic modulating control valves shall be of the Globe Valve design with interchangeable seats and plugs for various CV's. Flow characteristics shall be either Linear or Equal Percentage. Stem seal shall be PTFE bellows design. PVC conforming to ASTM D1784 Cell Classification 12454-A, PP conforming to ASTM D4101 Cell Classification PP0210B67272, and PVDF conforming to ASTM D3222 Cell Classification Type II., as manufactured by Asahi/America, Inc.

Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

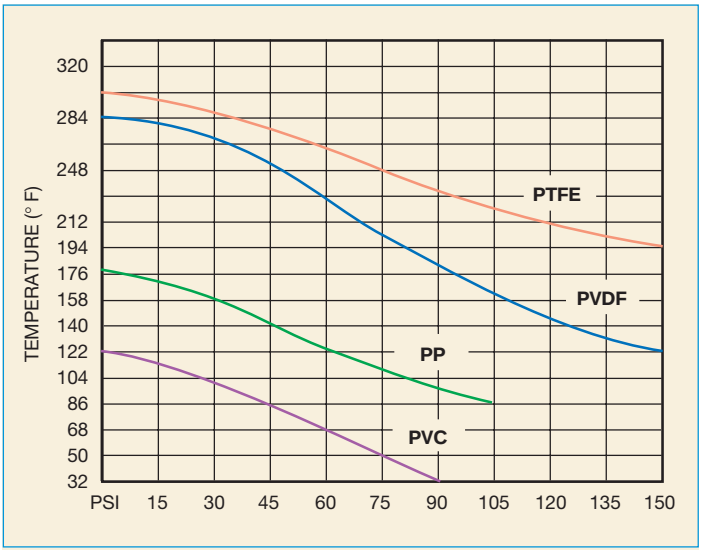
Globe Control Valves





Operating Pressue vs. Temperature

(PSI, WATER, NON-SHOCK)



Dimensions

(INCHES)

NOMINAL SIZE		PVC, PP			PVDF, PTFE		
INCHES	mm	L	H	D	L	H	D
1/2	15	3.35	18.70	8.66	5.12	19.69	8.66
3/4	20	3.74	18.70	8.66	5.91	19.88	8.66
1	25	4.33	18.90	8.66	6.30	19.88	8.66
1 1/4	32	5.31	19.09	8.66	7.09	20.08	8.66
1 1/2	40	7.48	18.90	8.66	7.87	20.28	8.66
2	50	7.87	19.09	8.66	9.06	20.47	8.66
2 1/2	65	8.66	20.08	8.66	11.42	21.46	8.66
3	80	9.45	20.08	8.66	12.20	21.85	8.66
4	100	11.42	20.28	8.66	13.78	21.81	8.66
5	125	NA			ON REQUEST		
6	150	NA			ON REQUEST		

Globe Control Valves

Cv Values for PTFE and PVDF

SEAT DIA	VALVE SIZE (INCHES)								
INCHES	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
.106	.23								
.149	.46								
.185	.70								
.236	1.20								
.299	1.75	1.75							
.374	2.60	2.60	2.6						
.404		4.00	4.0	4.0					
.578		6.10	6.1	6.1	6.1				
.748			10.5	10.5	10.5	10.5			
.944			14.0	14.0	14.0	14.0			
1.181				18.0	18.0	18.0	18.0	18.0	
1.496					29.0	29.0	29.0	29.0	29.0
1.909						40.0	40.0	40.0	40.0
2.047							52.0	52.0	52.0
2.244								70.0	70.0
2.696									93.0
2.897									105.0

Cv Values for PVC and PP

SEAT DIA.	VALVE SIZE (INCHES)								
INCHES	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
.106	.23								
.149	.46								
.185	.70								
.236	1.20								
.299	1.75	1.75							
.374	2.60	2.60	2.6						
.404		4.00	4.0	4.0					
.578		6.10	6.1	6.1	6.1				
.748				9.5	9.5	9.5			
.944				10.5	10.5	10.5	10.5		
1.181					16.0	16.0	16.0	16.0	
1.496						25.0	25.0	25.0	25.0
1.909							40.0	40.0	40.0
2.047							46.0	46.0	46.0
2.244								64.0	64.0
2.696									81.0
2.897									93.0

Troubleshooting

What if fluid flows even when fully closed?

1. Plug or seat is damaged. Change plug or seat.
2. Foreign matter is caught or formed at plug and seat.
3. Air not completely exhausted.

What if it does not open?

1. Actuator diaphragm is damaged or worn. Replace.
2. Operating air pressure is low.

What if fluid leaks from body?

1. Bolts for bellows housing and body are loose. Retighten.
2. O-ring(s) chemically attacked. Replace.

Ordering Information

Service Conditions

1. Media:_____ Concentration: _____%
2. Temperature:_____(° C or ° F)
3. Flow Req'd (gpm): Max_____ Normal_____ Min_____
4. Line Pres. at Max Flow (psi): Upstream_____ Downstream_____
5. Line Pres. at Norm Flow (psi): Upstream_____ Downstream_____
6. Line Pres. at Min Flow (psi): Upstream_____ Downstream_____

Valve Specifications

7. Line Size:_____ Specific Gravity_____
8. Valve Style (Equal% or Linear): _____
9. Valve Material:_____ Valve Seals:_____
10. Cv Valve Required: Max_____ Norm_____ Min_____

Actuator Specifications

11. Electric Control Signal:_____ mA or Volt (circle one)
12. Pneumatic control Signal (psi):_____