

Control Ball Valve Type 110



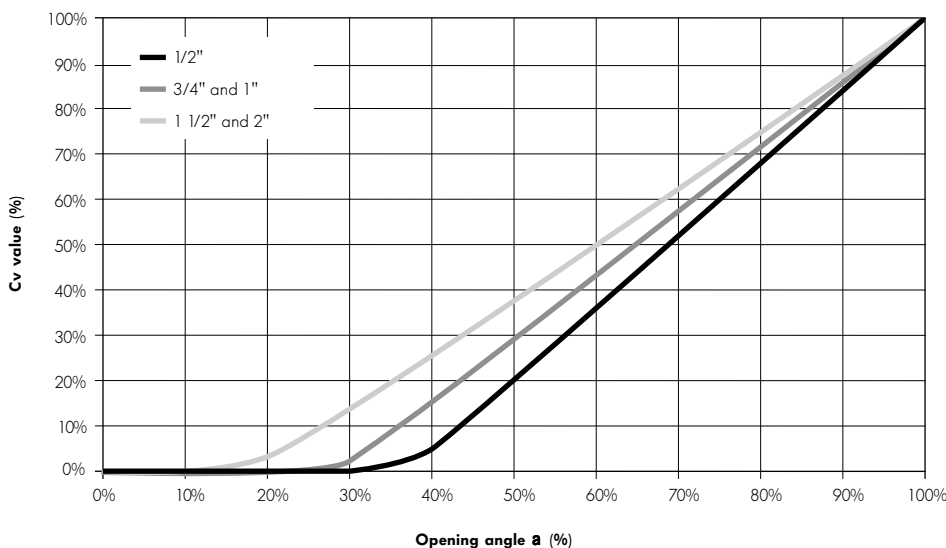
Plastic ball valves are ideal shut-off valves for aggressive media. With increased automation in piping systems, the need for control functions also increases. The "characterized" ball of the Type 110 Control Ball Valve allows for very small pressure loss in the open position and excellent flow control utilizing both manual and actuated versions.

George Fischer has adapted the ball design of the familiar Type 346 and developed the Type 110 series, a ball valve program which, with its flow characteristics, is ideally suited for control tasks. This new line of ball valves is available in PVC, PP and PVDF, in manual as well as actuated versions (electric and pneumatic).

Product Features

- All-plastic valve
- Dimension range 1/2" - 2"
- Large selection of materials PVC, PP, PVDF
- Linear flow characteristics
- High Cv value
- Manual and actuated versions
- Simple design
- George Fischer product quality

Flow Diagram



For other differential pressures:
 $Q_{gpm} = C_v \sqrt{\Delta p}$

C_v = Gallons per minute at 1 psi pressure drop

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Cv values for different control angles at $\Delta p = 1$ psi

Set values				Flow									
Angle (°)	%	Voltage (V) 0-10 V	Current (mA) 4-20 mA	1/2" (gpm)	% of Cv	3/4" (gpm)	% of Cv	1" (gpm)	% of Cv	1 1/2" (gpm)	% of Cv	2" (gpm)	% of Cv
0	0	0	4.0	0	0	0	0	0	0	0	0	0	0
9	10	1	5.6	0	0	0	0	0	0	0	0	0	0
18	20	2	7.2	0	0	0	0	0	0	1.1	2	1.5	3
27	30	3	8.8	0	0	0	0	0.3	2	7.4	14	7.8	15
36	40	4	10.4	0.3	5	2.2	14	2.5	16	13.8	27	14.0	27
45	50	5	12.0	1.3	20	4.6	28	4.6	30	20.1	39	20.2	39
54	60	6	13.6	2.2	36	6.9	43	6.7	44	26.5	51	26.5	51
63	70	7	15.2	3.2	52	9.2	57	8.9	58	32.8	63	32.8	64
72	80	8	16.8	4.1	68	11.5	71	11.1	72	39.1	76	39.0	76
81	90	9	18.4	5.0	84	13.8	86	13.2	86	45.5	88	45.2	88
90	100	10	20.0	6.0=Cv	100	16.1=Cv	100	15.4=Cv	100	51.9=Cv	100	51.5=Cv	100

Part Numbers

The valves can be assembled according to your specific requirements using the components listed below. The manual version always serves as the basic unit.

Ball valve Type 110 with handle and mounting bracket

Sockets * PP and PVDF with metric fusion sockets

Inch size	PVC		PP*		PVDF*	d mm	DN mm
	EPDM	FPM	EPDM	FPM			
1/2	199 110 011	199 110 016	199 110 021	199 110 026	199 110 031	20	15
3/4	199 110 012	199 110 017	199 110 022	199 110 027	199 110 032	25	20
1	199 110 013	199 110 018	199 110 023	199 110 028	199 110 033	32	25
1 1/2	199 110 014	199 110 019	199 110 024	199 110 029	199 110 034	50	40
2	199 110 015	199 110 020	199 110 025	199 110 030	199 110 035	63	50



IR/Butt Fusion Spigots

d mm	DN mm	PP EPDM		FPM	PVDF FPM	Inch size
20	15	199 110 061	199 110 066	199 110 071	1/2	
25	20	199 110 062	199 110 067	199 110 072	3/4	
32	25	199 110 063	199 110 068	199 110 073	1	
50	40	199 110 064	199 110 069	199 110 074	1 1/2	
63	50	199 110 065	199 110 070	199 110 075	2	

If an actuated control valve is required, it can be assembled as desired with the components listed below.

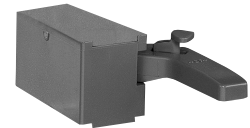
Intermediate kit for pneumatic actuators

Size	Actuator	Part Number
1/2"	PA 30 FC	198 000 260
3/4" - 1"	PA 30 FC	198 000 262
1 1/2" - 2"	PA 35 FC	198 000 265



Manual override for electric actuators only

Size	Part Number
1/2"	198 000 100
3/4" - 1"	198 000 102
1 1/2" - 2"	198 000 105



Electric actuator EA 20 with PE 22 (with potentiometer) as positioner

Voltage Type	Part Number
115/230 V, 50-60 Hz	198 150 434
24 V=≈	198 150 435



Pneumatic actuator

Sizes	Actuator Type	Part Number
1/2" - 1"	PA 30 FC	198 800 736
1 1/2" - 2"	PA 35 FC	198 800 037



Electro-pneumatic positioner

Type	Function	Part Number
1 Eckardt SRI 986	single acting	199 190 348
2 Adapter kit to SRI 986		199 190 351
3 Namur adapter plate		199 190 281

