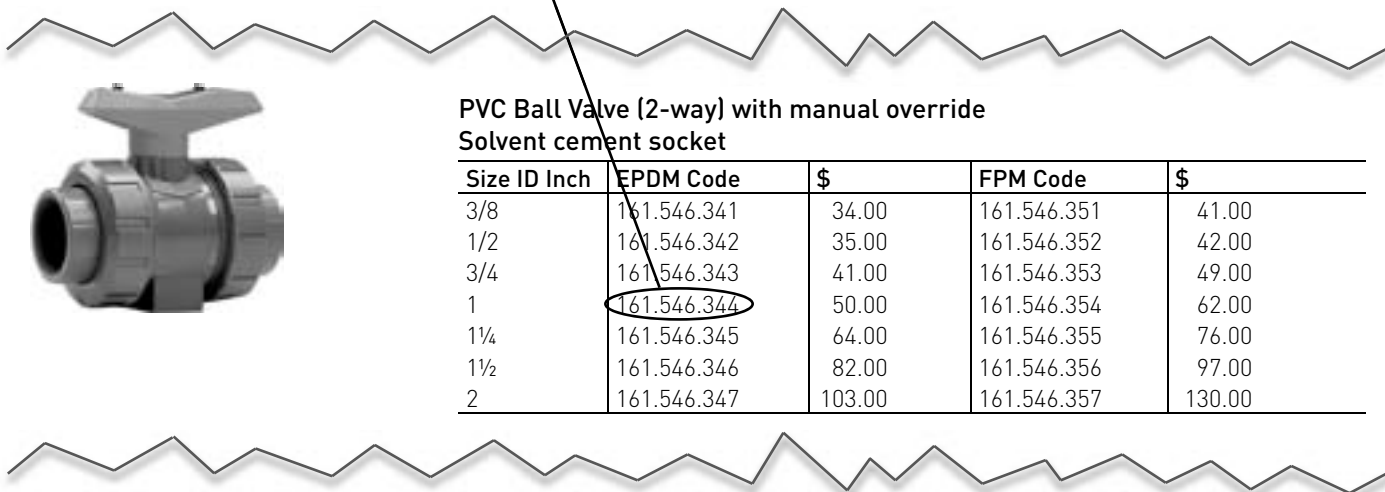


# Manual and Actuated Type 546 with Control Ball Option

## How to order

Requirement: 1" PVC Ball Valve (2-way) with a control ball manual override with solvent cement socket ends and EPDM seals.

- 1) Order according to code number: 161.546.344
- 2) Add option at end of code number for final part number: 161.546.344C
- 3) Note that the discount for Type 546 with control ball changes to C, manual or actuated.



**PVC Ball Valve (2-way) with manual override  
Solvent cement socket**

Size ID Inch	EPDM Code	\$	FPM Code	\$
3/8	161.546.341	34.00	161.546.351	41.00
1/2	161.546.342	35.00	161.546.352	42.00
3/4	161.546.343	41.00	161.546.353	49.00
1	161.546.344	50.00	161.546.354	62.00
1¼	161.546.345	64.00	161.546.355	76.00
1½	161.546.346	82.00	161.546.356	97.00
2	161.546.347	103.00	161.546.357	130.00

## Control Ball Option "C" List Pricing Adder

C Discount applies for manual or actuated valve with characterized ball

**C**

Size (inch)	PVC list price	CPVC* list price	PP list price	PVDF list price
3/8	N/A	N/A	N/A	N/A
1/2	78.90	84.30	80.00	84.30
3/4**	86.00	117.00	87.00	117.00
1	86.00	117.00	87.00	117.00
1¼	N/A	N/A	N/A	N/A
1½**	107.00	Contact Factory	110.00	Contact Factory
2	107.00	Contact Factory	110.00	Contact Factory

The following chart is the list pricing for the characterized ball only

**C**

Size (inch)	PVC	List Price	PP	List Price	PVDF	List Price
½	161491032	78.90	167483419	78.90	175483379	84.30
1 and ¾	161491034	83.70	167483421	83.70	175483381	114.10
2 and 1½	161491037	107.00	167483424	107.00	175483384	260.50

## Notes:

- \* CPVC valve uses PVDF Ball
- \*\* ¾" and 1½" are reduced from next largest size in the same way as the Type 110.
- Control Ball Option <C> available in both manual and actuated valves.  
(See actuated valves and accessories pricing to build complete price.)
- When specifying on a Type 107 electric actuator, only 90 deg on/off available.
- When specifying on Types 131-133 using EA 21, the PE 25 positioner is also required and sold as a factory assembly See EA21 Accessories for complete details.

# Type 546 Control Ball Option



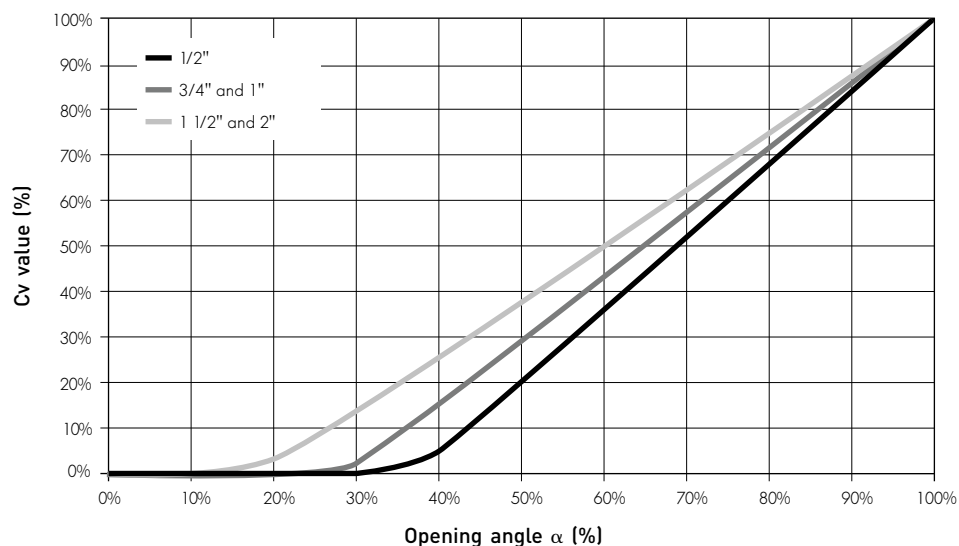
Plastic ball valves are ideal shut-off valves for aggressive media. With increased automation in piping systems, the need for control functions also increases. The "characterized" ball of the Type 546 Control Ball Option allows for very small pressure loss in the open position and excellent flow control utilizing both manual and actuated versions.

George Fischer has adapted the ball design of the familiar Type 110 and developed the Type 546 option, a ball valve program which, with its flow characteristics, is ideally suited for control tasks. This new Type 546 option is available in PVC, CPVC, 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, CPVC, 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

3/4" (25 mm) valves are 1" (32 mm) valves with specialized end connectors.

1 1/2" (50 mm) valves are 2" (63 mm) valves with specialized end connectors.

## Cv values for different control angles at $\Delta p = 1 \text{ psi}$

Set values				Flow									
Angle		Voltage [V] 0-10 V	Current [mA] 4-20 mA	1/2"		3/4"		1"		1 1/2"		2"	
[°]	%			(gpm)	% of $C_v$	(gpm)	% of $C_v$	(gpm)	% of $C_v$	(gpm)	% of $C_v$	(gpm)	% of $C_v$
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= $C_v$	100	16.1= $C_v$	100	15.4= $C_v$	100	51.9= $C_v$	100	51.5= $C_v$	100