

Features and Benefits

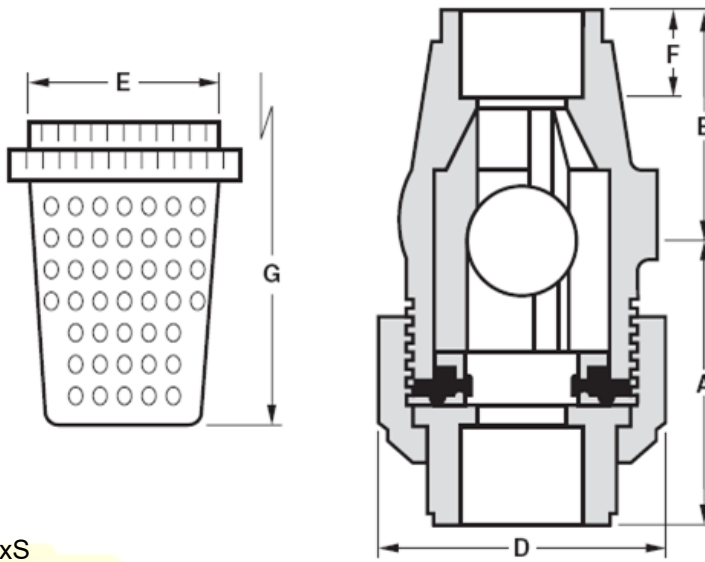
- Schedule 80 Design. Dimensions meet ASTM requirements: PVC D-2467, D-2464; CPVC F-439, F437
- 100% thermoplastic design resists process and atmospheric corrosion.
- Single union design permits a separation point in the piping system for maintenance.
- Not for use with slurries
- Prevents backflow in piping systems. Installed to protect pumps, filters, and other process equipment from damage. Also effective at preventing liquid storage tanks from unwanted drain-down.
- This valve can be installed in the vertical position (for upward flow), or horizontally, providing that there is a minimum of 5 psi (12 feet of head pressure) of backflow to properly seat the ball.

SAMPLE ENGINEERING SPECIFICATIONS

Thermoplastic ball check valves shall be of single union design, Schedule 80 and produced of PVC type 1, cell class 12454 or CPVC type IV, cell class 23447. Seat shall be of FKM or EPDM material. Flanged type shall include ANSI B16.5, Class 150 Flanges. Colonial Single Union Ball Check series.



Revised 1/6/21



Temperature / pressure de-rating

Temp (°F)	PVC	CPVC
73	1.00	1.00
80	0.88	0.96
90	0.75	0.92
100	0.62	0.85
110	0.50	0.77
120	0.40	0.70
130	0.30	0.62
140	0.22	0.55
150	NR	0.47
160	NR	0.40
170	NR	0.32
180	NR	0.25
200	NR	0.18
210	NR	0.15
220	NR	NR

Dimensions SxS

Size	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
A	2.688	2.938	3.625	4.000	6.450	6.350	7.580
B	1.969	2.094	2.438	3.188	4.200	4.000	5.050
D	2.500	2.813	3.750	4.188	6.300	6.300	8.860
E	2.875	3.281	4.281	4.781	NA	NA	NA
F	1.000	1.156	1.406	1.813	1.750	1.875	2.250
G	4.688	5.031	16.531	7.813	NA	NA	NA

Dimensions Flange x Flange

Size	3"	4"
A	8.760	10.580
B	5.855	7.060
D	7.594	9.063

Pressure rating:
 3/4" - 2" 235 psi, 2-1/2" - 4" 150 psi,
 non-shock water at 73 °F

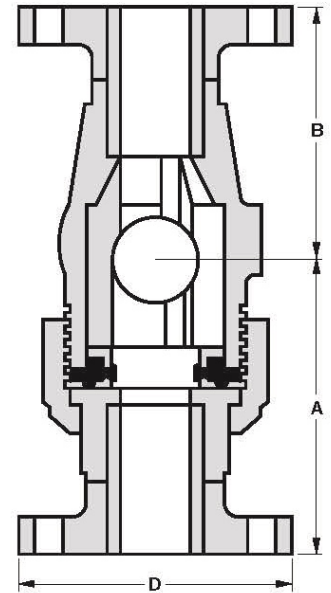
For use with fluid handling only. Do not
 use with compressed air or gas.

FLUID FLOW COEFFICIENT

*Gallons per minute @ 1 psi pressure drop

Nominal Size	Cv*
1/2"	6
3/4"	16
1"	24
1 - 1/4"	70
1 - 1/2"	84
2"	125
2 - 1/2"	164
3"	280
4"	490

Caution: Colonial recommends
 a
 Minimum installation distance
 of
 10 X the pipe diameter from a
 Pump or other sources of
 turbulence.



Part Numbers & Material Choices

Size	PVC/FKM SxS	PVC/EPDM SxS	PVC/FKM Flg x Flg	PVC/EPDM Flg x Flg	CPVC/FKM SxS	CPVC/EPDM SxS	CPVC/FKM Flg x Flg	CPVC/EPDM Flg x Flg
3/4	V08222B							
1	V10222B							
1-1/2	V17222B							
2	V20222B							
2-1/2	V27222B	V27221B1	V27242B	V27241B	V27224B	V27223B	V27244B	V27243B
3	V30222B	V30221B1	V30242B	V30241B	V30224B	V30223B	V30244B	V30243B
4	V40222B	V40221B1	V40242B	V40241B	V40224B	V40223B	V40244B	V40243B