PLASTIC CHECK VALVES

Check Valves, sometimes referred to as non-return or one way valves, allow the flow of fluid in one direction only. The flow direction is typically indicated by an arrow on the valve body. The 17PCV series PVC Check Valves are commonly used in the installation of a submersible pump. Their purpose is to prevent the flow of fluid in the opposite direction and to maintain system pressure when the pump stops. Check valves work automatically and are opened by the pumps pressure against a low tension spring, normally ½ PSI or less cracking pressure (cracking pressure is the pressure it takes to open the valve). When the pump stops the valve starts closing automatically with assistance of the spring as the flow slows, and is completely sealed before it comes to a full stop. This eliminates flow reversal which would cause the poppet to slam against the seat causing hydraulic shock or water hammer. Without a check valve gravity would cause the water or fluid to flow in the reverse direction, draining system pressure and potentially causing damage to the pump and or piping system.

APPLICATIONS:

- Check valves are mainly used in potable water, irrigation, and wastewater (without solids) applications. Designed for cold potable water applications up to 400 feet. For hot water applications, special high temperature valves must be used.

Flow Rate/Velocity Chart For Check Valve Selection					
Nominal		Min 5ft./sec.		Max 7ft./sec.	
in	mm	GPM	LPM	GPM	LPM
3/4	19.05	7.00	26.50	9.00	34.07
1	25.40	13.00	49.21	17.00	64.35
1-1/4	31.75	19.00	71.92	27.00	102.21
1-1/2	38.10	28.00	105.99	39.00	147.63
2	50.80	49.00	185.49	69.00	261.19
2-1/2	63.50	77.00	291.48	107.00	405.04
3	76.20	110.00	416.40	154.00	582.95
4	101.60	196.00	741.94	274.00	1037.20
6	152.40	441.00	1669.37	617.00	2335.60

It is recommended that you select the size of pipe according to a water velocity of 5-7 ft/second.

For use with ASTM-D2239 Polyethylene (PE) pipe

Flow Coefficient (CV) is the flow rate through a valve in the fully open position, which will produce a differential pressure of 1 PSI.
It is defined as the volume of water in US gallons per minute (GPM) at 60°F (15.5°C)

TEMPERATURE CORRECTION FACTOR FOR PVC VALVES

As temperature increases, working pressure decreases. The optimal working pressure for PVC valves is 150 PSI @ 73°F (22°C)
If the temperature increases above 73°F (22°C), use the PVC correction factor to determine working pressure.
Multiply the maximum working pressure by the correction factor.

Temperature	73°F (22°C)	90°F (32°C)	100°F (38°C)	110°F (44°C)	120°F (49°C)	130°F (54°C)	140°F (60°C)	150°F (66°C)
PVC Correction Factor	1.00	0.75	0.62	0.50	0.40	0.30	0.22	Not Recommended

User Responsibility Statement: It is the user's sole responsibility to determine the product's suitability for its intended use. For full details, visit Boshart Industries Reference Documents for our User Safety Responsibility Statement and other important documents.

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For more information on installation, adjustment, repair & operation, visit Boshart Knowledge Base at SUPPORT.BOSHART.COM

BII-17PCV-0726(23,131,81PVC2,329)V2.1

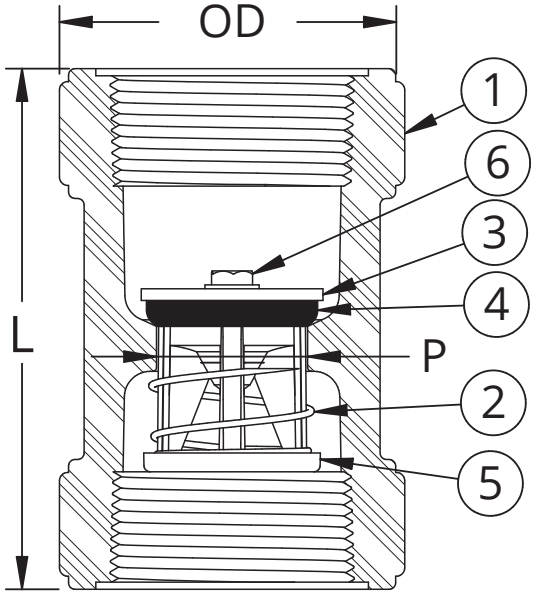
17PCV SERIES - POPPET TYPE PVC CHECK VALVE (SPRING ASSIST CLOSING)

FEATURES:
- Flow diverter minimizes turbulence and friction loss
- Stainless Steel spring closes valve against pressure, eliminating flow reversal & minimizing hydraulic shock
- Stemless acetal poppet guide for long-lasting, quiet, trouble free operation in both vertical and horizontal installations
- One-piece Extra Heavy Duty valve body is suitable for submersible pump applications (see maximum load capacity on chart below)
- Can be used vertically or horizontally

SPECIFICATIONS:
- Valve body molded from Rigid PVC
- FPT threads conform to ASME /ANSI B 1.20.1 specifications
- NBR Sealing Gasket ensures a positive seal
- Screws conform to ASME B18.6.3 - Machine Screws, Tapping Screws, and Metallic Drive Screws (Inch Series)
- Cracking Pressure is equal to or less than 1/2 PSI

CERTIFICTATIONS:
- NSF/ANSI Standard 372 Certified (Drinking Water System Components - Lead Content)

RATINGS:
- Max Working Pressure: 150 PSI at 73°F (1034 kPa at 22°C) (refer to temperature derating chart on page 2 if used above 73°F)



MATERIAL LIST		
No.	**Part Name**	**Material**
1	Valve Body	Rigid PVC
2	Spring	304 Stainless Steel
3	Poppet Disc	304 Stainless Steel
4	Sealing Gasket	NBR (Nitrile Buna-N Rubber) Durometer 45
5	Stemless Poppet Guide	Acetal
6	Screw	Stainless Steel Plastite

DIMENSIONS											
Part No.	**Connection Size (CS)**	**Flow Coefficient (CV)**	**Length (L)**		**Outside Diameter (OD)**		**Port Diameter (P)**		**Maximum Load Capacity**	**Weight**	
			in	**mm**	**in**	**mm**	**in**	**mm**	**lbs**	**lbs**	**grams**
17PCV075	3/4" FPT	Not currently available	2.91	73.91	1.61	40.89	0.53	13.46	196	0.161	73.03
17PCV100	1" FPT		3.46	87.88	1.91	48.51	0.71	18.03	304	0.252	114.31
17PCV125	1-1/4" FPT		3.92	99.57	2.36	59.94	0.92	23.37	469	0.430	195.04
17PCV150	1-1/2" FPT		4.01	101.85	2.66	67.56	1.16	29.46	606	0.542	245.85
17PCV200	2" FPT		4.65	118.11	3.29	83.57	1.36	34.54	927	0.920	417.31

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