Detector-Double Check Valve Backflow Prevention Assembly Sizes 3″ – 4″ – 6″ – 8″ – 10″

FEATURES

Replaceable seats.

Smooth transition from low to high flow rates.

Low head loss throughout operating range.

Rugged construction for long dependable service.

In-line maintenance.

Test cocks for in-line field testing.

Approvals by: USC, CSA, FM; UL classified.

DESCRIPTION

Offering the combined features of a detector check and a double check valve assembly, the Hersey Model DDC II controls cross-connections that do not present a health-hazard, while also detecting leakage or unauthorized use of water from fire or automatic sprinkler systems.

The mainline unit consists of two independent spring loaded poppet-type check valve assemblies mounted in a common body. Two gate valves and four test cocks for field testing complete the basic features. The valve assemblies are of modular design and easily removed from the top of the device for in-line servicing.

The bypass consists of an approved double check valve assembly, shutoff valves, testcocks, and a meter with low flow accuracy.

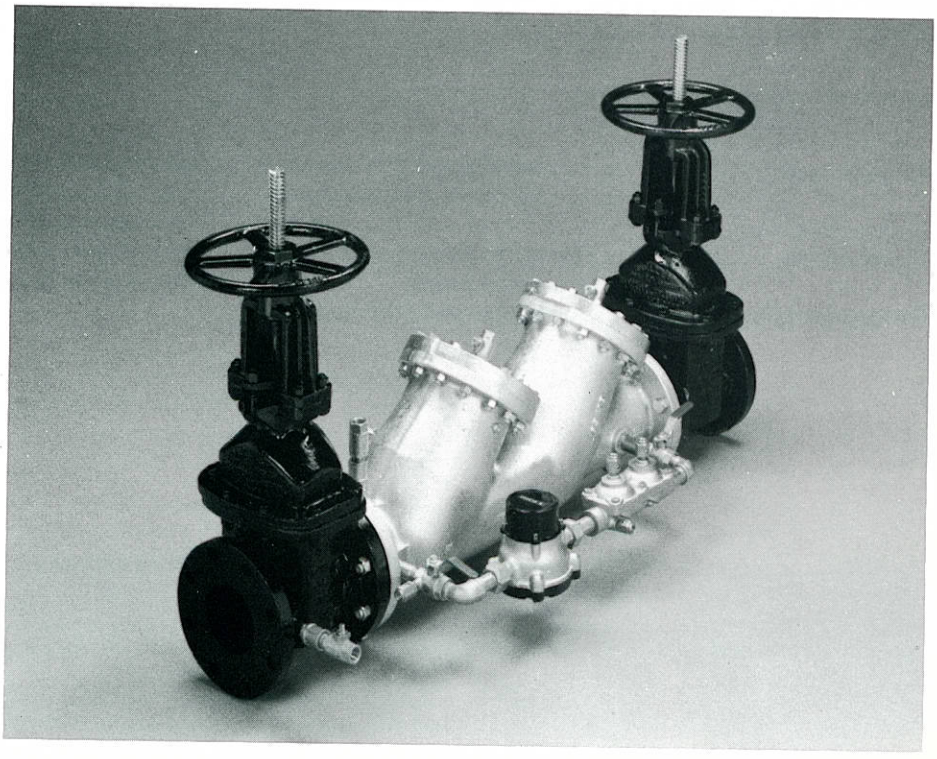
OPERATION

In normal operation, the independent, spring loaded check valves remain closed until there is a demand for water. Low flow is routed through the bypass, and volume recorded on a Hersey positive displacement or turbine meter. Higher flows will cause the spring loaded check valves in the mainline to open. With the main line open, water continues to flow through the bypass at a rate below capacity.

If pressure increases downstream from the unit (reversing the direction of flow) the two check valves in the main unit, as well as double check valves in the bypass, are closed to prevent backflow. If the second check valve in either the mainline or the bypass is prevented from closing tightly, the first check valve will still provide protection from a backflow condition.

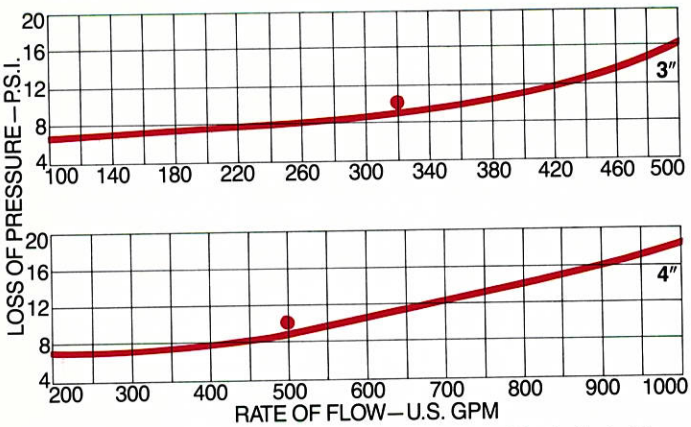
APPLICATION

For use at cross-connections when the danger from backflow does not present a health-hazard. A primary application is installation in fire lines to detect leaks or unauthorized use of water.

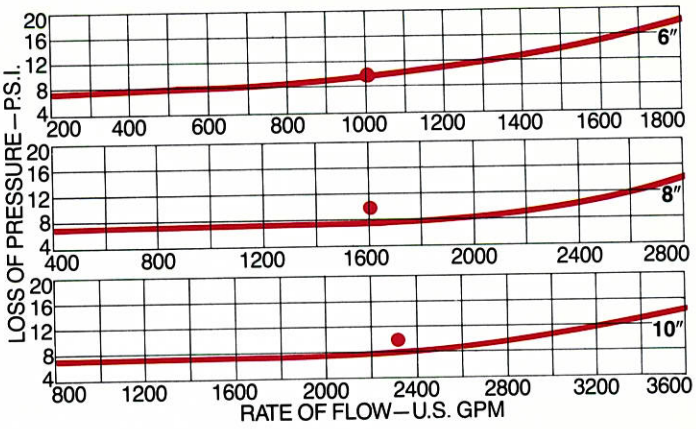


PERFORMANCE (Performance curves are typical only and not a guarantee of performance)

Head Loss – 3" and 4"



Head Loss – 6", 8" and 10"

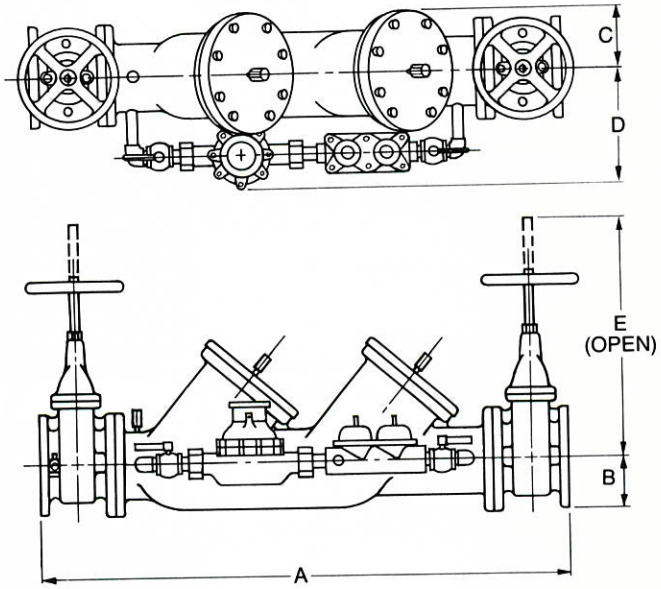


NOTE: ● Maximum Allowable Pressure Loss allowed by USC at indicated flow.

DIMENSIONS

SIZE	3" x ¾"	4" x ¾"	6" x ¾"	8" x ¾"	10" x ¾"
A	40⅝"	47½"	62"	75½"	88"
B	4"	4 11/16"	5¾"	7"	8½"
C	4⅛"	4 11/16"	6 3/16"	8⅜"	10 3/16"
D	9⅝"	13"	14¼"	15¼"	16¼"
E (OS + Y)*	22 1/16"	25"	32¾"	41½"	48½"
Size of Test Cocks	½"	½"	¾"	¾"	¾"

*OS+Y gate valve: "E" dimension open.



WEIGHTS

SIZE	3"x3/4"	4"x3/4"	6"x3/4"	8"x3/4"	10"x3/4"
Net Wt. No Valves, Lbs.	270	276	440	1010	1735
Net Wt. W/OS+Y Valves, Lbs.	300	494	815	1634	2685
Gross Wt. No Valves, Lbs.	290	316	530	1114	1900
Gross Wt. W/OS+Y Valves, Lbs.	330	576	905	1738	2860

MATERIALS AND SPECIFICATIONS

Mainline case ..... hot-dipped galvanized or epoxy-coated cast iron
Bypass case ..... bronze
Bypass meter ..... Hersey positive displacement or turbine meter
Working parts (mainline) ..... bronze and stainless steel
Springs (mainline) ..... stainless steel
Valve discs (mainline) ..... silicone rubber
Maximum rated working pressure ..... 175 psi
Hydrostatic test pressure ..... 350 psi
Temperature range ..... 33°–100°F