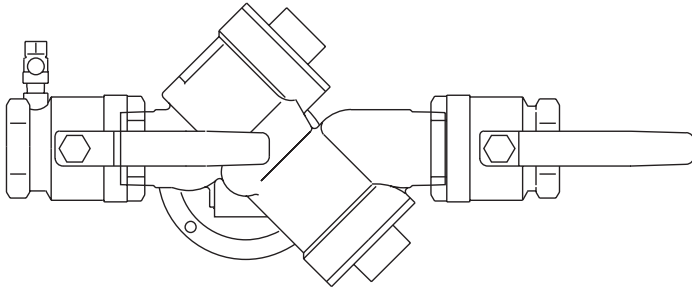


SPECIFICATION SHEET MODEL 825Y (3/4" - 2")



Reduce Pressure Assembly



Features

- Ultimate mechanical protection of potable water, against hazards of cross connection contamination.
- Meets all specifications of AWWA, ASSE, CSA and approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California.
- Flow curve generated by the Foundation of Cross-Connection Control and Hydraulic Research at the University of Southern California.
- Modular relief valve for ease of maintenance.
- Simple Service procedures. All internal parts serviceable in line.
- **Low head loss.**
- Spring loaded "Y" type check valves.
- Internal relief valve pressure sensing passages.
- Replaceable relief valve seat ring on all sizes.

Operation

In a flow condition the check valves are open with the pressure between the checks, called the zone, being maintained at least 5.0 PSI lower than the inlet pressure and the relief valve is maintained closed.

Should abnormal conditions arise under no flow or reversal of flow, the differential relief valve will open and discharge to maintain the zone at least 2 PSI lower than the supply.

When normal flow resumes the zone's differential pressure will resume and the relief valve will close.

Typical Specifications

The reduced pressure backflow preventer shall consist of two independently operating, spring loaded, "Y" pattern check valves and one hydraulically dependent differential relief valve. The assembly shall automatically reduce the pressure in the "zone" between the check valves to at least 5 PSI lower than inlet pressure. Should the differential between the upstream and the zone of the unit drop to 2 PSI, the differential relief valve shall open and maintain the proper differential.

Mainline valve body and caps including relief valve body and cover shall be bronze. Check valve moving member shall be center stem guided. All hydraulic sensing passages shall be internally located within the mainline and relief valve bodies and relief valve cover. Diaphragm to seat area ratio shall be 10:1 minimum. Relief valve shall have a removable seat ring. Check valve and relief valve components shall be constructed so they may be serviced without removing the valve body from the line. All seat discs shall be reversible. Shut-off valves and test cocks shall be full ported ball valves.

The assembly shall be rated to 175 PSI water working pressure and water temperature range from 32°F to 140°F.

The assembly shall meet the requirements of ASSE Standard 1013; AWWA Standard Code C511•89; CSA Standard B64•4; and approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California.

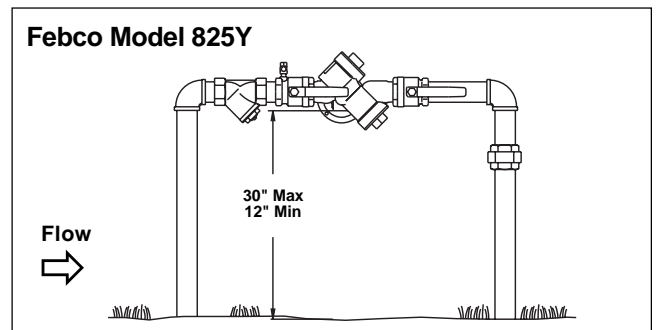
Typical Applications

Reduced Pressure assemblies are used to protect against high hazard (toxic) fluids in water services to industrial plants, hospitals, morgues, mortuaries, and chemical plants. They are also used in irrigation systems, boiler feed, water lines and other installations requiring maximum protection.

Installation

Reduced Pressure Backflow preventers should be installed with minimum clearance of 12" between relief valve discharge port and floor or grade. They must be installed where discharge will not be objectionable and can be positively drained away. They should be installed where easily accessible for testing and maintenance and must be protected from freezing. Thermal water expansion and/or water hammer downstream of the backflow preventer can cause excessive pressure. Excessive pressure situations should be eliminated to avoid possible damage to the system and assembly.

Refer to local codes for specific installation requirements. Some codes may prohibit vertical installation.

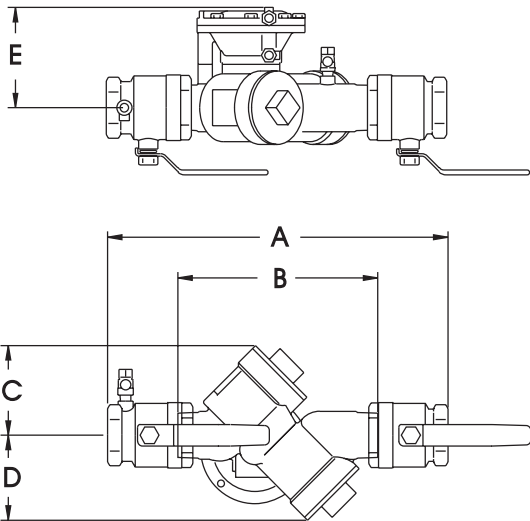


Characteristics and Materials

Maximum working pressure	175 PSI (1200 KPa)
Hydrostatic test pressure	350 PSI (2400 Kpa)
Temperature range	32°F to 140°F (0°C to 60°)
Fluid	Water
End detail	Threaded ANSI B2.1
Main valve body	Bronze
Relief valve body	Bronze
Elastomers	Nitrile Seat Discs [†] Diaphragms: Nitrile, fabric reinforced
Springs	Stainless Steel

[†] Can be supplied with optional silicone seat disc.

Dimensions and Weights



(U.S. - Inches)

SIZE	A	B*	C	D	E	NET WT. (Lbs.)
3/4	12	7 3/4	3 1/4	3 1/4	4 1/8	11.5
1	12 3/4	7 3/4	3 1/4	3 1/4	4 1/8	12.5
1 1/4	13 5/8	7 3/4	3 1/4	3 1/4	4 1/8	14.0
1 1/2	17	10 1/2	4 1/2	4 1/2	5	26.5
2	17 3/4	10 1/2	4 1/2	4 1/2	5	29.0

(Metric - MM)

SIZE	A	B*	C	D	E	NET WT. (Kgs.)
20	304.8	196.9	82.6	82.6	104.8	5.2
25	323.9	196.9	82.6	82.6	104.8	5.7
30	346.1	196.9	82.6	82.6	104.8	6.4
40	431.8	266.7	114.3	114.3	127.0	12.0
50	450.9	266.7	114.3	114.3	127.0	13.0

* B dimension is less shut-offs

Agency Compliance

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.①
- AWWA C511-89 Conformance
- ASSE (Std 1013)
- CSA B64.4 Certified
- IAPMO® Listed

① Valves must be supplied with factory installed ball valve shut-offs and test cocks for USC* approval to be effective.

Model 825Y Flow Curves

Flow curve generated by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.

