

For Health Hazard Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE***Series LF800M4FR**
Freeze-Resistant Pressure Vacuum Breakers**Sizes: 1/2" – 1" (15 – 25mm)**

Series LF800M4FR is designed to prevent backsiphonage of contaminated water under continuous pressure into the potable water supply. Its superior design protects the valve body and internal components during sudden freeze conditions. Water inside the PVB freezes from the outside-inward.

As the ice forms and expands, causing a buildup of pressure, the LF800M4FR relieves the pressure through a unique relief valve built into the plastic float.

Test cocks are positioned at the lowest point of the valve for winterization draining. The LF800M4FR is reusable with the relief valve designed to automatically re-seat. It will not discharge through the relief valve during normal operation. (The built-in relief valve is not designed to provide freeze protection for the entire irrigation system.) The LF800M4FR features Lead Free* construction to comply with Lead Free* installation requirements.

Features

- Unique built-in relief valve relieves pressure caused by ice formation
- Replaceable plastic seat
- Easy maintenance of internal parts
- O-ring bonnet seal for less possibility of fouling
- Silicone seat disc for durability
- Test cocks positioned for easy testing and winterization
- Compact space saving design
- Standardly equipped with tee handle quarter turn ball valve shutoffs 1/2" – 1" (15 – 25mm).
- No special tools required for servicing
- Lead Free* Bronze body for durability

Available Models

Prefix: U – union connections (3/4" – 1" only)

Suffix: QC – Quick-Connect Adapters

*The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.



LF800M4FR
Patent #5551473

Specifications**Pressure Vacuum Breakers**

A pressure anti-siphon vacuum breaker shall be installed where indicated on the plans to prevent the backsiphonage of contaminated water. This assembly is not to be used where there is a possibility that a back pressure condition may develop. The assembly will incorporate an acetal bonnet with silicone rubber O-ring seal and silicone rubber seat disc. The valve shall have replaceable seats. Check assembly shall be guided over its full stroke by 'V' notch guides.

The assembly shall include an internal, built-in relief valve designed to protect the internal components and the backflow body from freezing. The relief valve shall be repeatable, automatically re-seating when the pressure within the valve is below the set point of the freeze relief valve. The Lead Free* Freeze-Resistant Pressure Vacuum Breakers shall comply with state codes and standards, where applicable, requiring reduced lead content.

The assembly shall meet the requirements of ANSI/ASSE Standard 1020.

The valve shall be a Watts Series LF800M4FR.

Now Available
WattsBox Insulated Enclosures.
For more information, send for literature ES-WB.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

Materials

| | |
|-------------------|-------------------|
| Springs | Stainless Steel |
| Bonnet | Celcon |
| Vent Disc | Silicone Rubber |
| Disc Holder Float | Polypropylene |
| Check Valve Disc | Silicone Rubber |
| Check Valve Seat | Noryl® Plastic |
| Body | Lead Free* Bronze |

Pressure - Temperature

Temperature Range: 33°F to 140° (0.5°C to 60°C)
 Maximum Working Pressure: 150psi (10.3 bar)

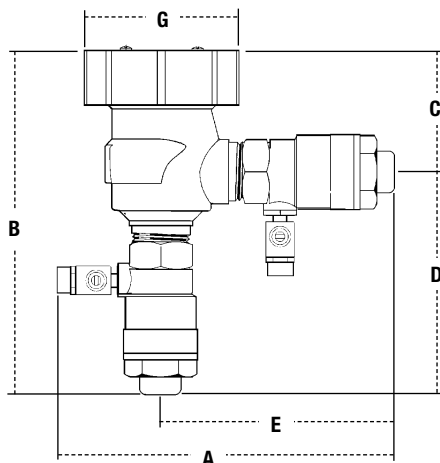
Installations

This valve is designed for installation in a continuous pressure potable water supply system 12" above the highest point of the downstream piping. The valve must be installed with the supply connected to the bottom and in a vertical position. Allow adequate space for periodic inspection, servicing or testing. The valve should not be installed in an area where freezing or spillage will cause damage. Adequate drainage/freeze protection must be provided in cold weather applications. 1.5psi (.10 bar) must be exerted against the float spring to seal the float and air inlet. Do not undersize supply and discharge piping.

Important Note: Vacuum breakers are not designed, tested or approved to protect against backpressure backflow or water hammer shock. For protection against backpressure backflow, install Watts LF009 Reduced Pressure Zone Backflow Preventer. For Protection against water hammer shock install a Watts Series LF15 Water Hammer Arrestor utilizing good plumbing practice.

Dimensions – Weights

LF800M4FR



| MODEL | SIZE (DN) | | DIMENSIONS | | | | | | | | | | WEIGHT | | | |
|---------|-----------|----|------------|-----|-------|-----|--------|----|---------|-----|-------|-----|--------|----|------|-----|
| | in. | mm | A | | B | | C | | D | | E | | G | | lbs. | kg. |
| 800M4FR | 1/2 | 15 | 6 1/8 | 156 | 6 1/4 | 159 | 2 9/16 | 65 | 3 11/16 | 94 | 3 3/8 | 98 | 2 1/4 | 57 | 4 | 1.8 |
| 800M4FR | 3/4 | 20 | 6 1/2 | 165 | 6 1/2 | 165 | 2 9/16 | 65 | 3 15/16 | 100 | 4 1/8 | 105 | 2 1/4 | 57 | 4 | 1.8 |
| 800M4FR | 1 | 25 | 7 1/2 | 191 | 7 1/2 | 191 | 2 3/4 | 70 | 4 3/4 | 121 | 4 7/8 | 124 | 3 1/16 | 87 | 6 | 2.7 |

Noryl® is a registered trademark of SABIC Innovative Plastics™.

Standards

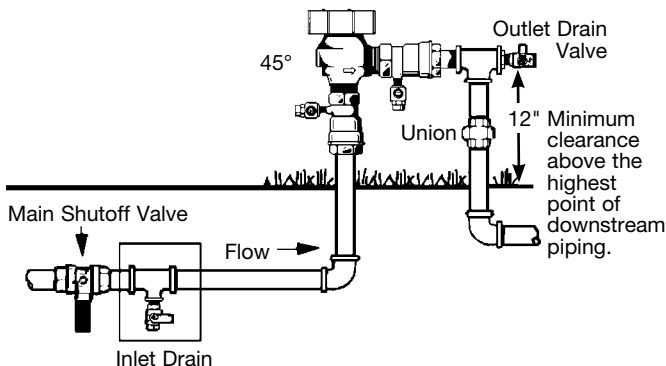
ANSI, IAPMO, USC Manual Section 10

Approvals

IAPMO



Approved by the foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California, Manual Section 10.



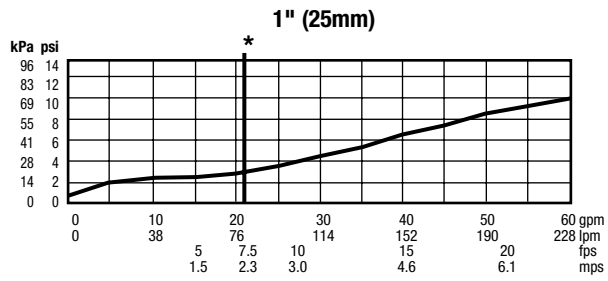
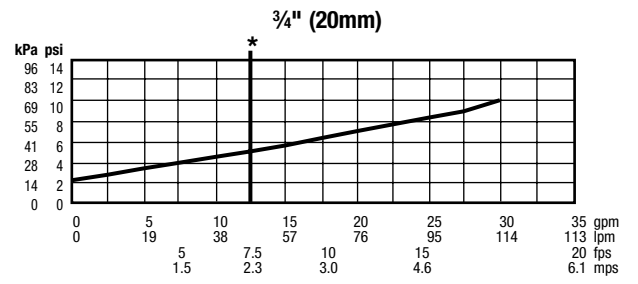
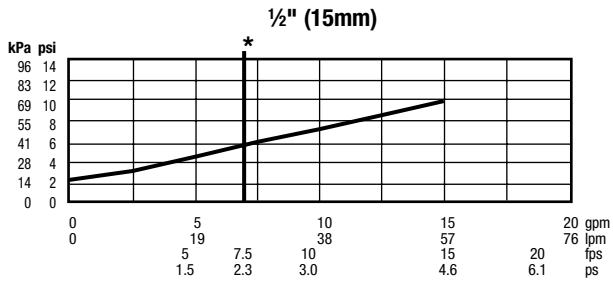
Freeze Protection Guidelines

1. Close main shutoff valve.
2. Open upstream drain, test cocks and isolation ball valves to depressurize line.
3. Purge with air.
4. Leave test cocks and isolation ball valve handles in 45° angle to drain ball valves and prevent casting damage.

Capacity

As compiled from documented Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California lab tests.

*Typical maximum flow rate (7.5 feet/sec.)



For additional information, visit our web site at: www.watts.com



A Watts Water Technologies Company

ES-LF800M4FR 0940



USA: 815 Chestnut St., No. Andover, MA 01845-6098; www.watts.com
Canada: 5435 North Service Rd., Burlington, ONT. L7L 5H7; www.wattscanada.ca

© 2009 Watts