

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Series LF800M4QT

Antisiphon Pressure Vacuum Breaker

1/2" – 2"

⚠ WARNING

Freeze sensor solely provides alerts about a possible freeze event and cannot prevent a freeze event from occurring. User action is required to prevent freeze conditions from causing product and/or property damage.

Series LF800M4QT prevents backsiphonage of contaminated water into a potable water supply. The device is ideally suitable for irrigation systems, industrial process water systems, and other continuous pressure piping system applications where the water enters the equipment at or below its flood rim. The disc float and check valve are suitable for temperatures up to 140°F. The resilient sealing float O-ring and seal check disc are silicone rubber which is resistant to heat, shock, and chemical attack. The device features Lead Free* construction to comply with Lead Free* installation requirements.

The series includes a freeze sensor for use with SentryPlus Alert® technology to monitor temperature and alert facility personnel when freeze conditions can cause damage to equipment. (The sensor is installed on the assembly exterior and does not alter assembly functions or certifications.)

NOTICE

An add-on connection kit (sold separately) is required to activate the freeze sensor. Without the connection kit, the sensor is a passive component that has no communication with any other device. (For more information download RP/IS-800M4.)

NOTICE

Use of the freeze sensor does not replace the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of this product, including the need to provide protection against a freeze event.

Watts is not responsible for the failure of alerts due to connectivity issues, power outages, or improper installation.

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

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.



LF800M4QT with Freeze Sensor

Features

- Replaceable plastic seat
- Easy maintenance of internal parts
- Acetal bonnet acts as "freeze plug" to prevent body damage
- 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 (sizes 1/2" to 1") and with lever handles (sizes 1 1/4" to 2")
- No special tools required for servicing
- Lead Free* cast copper silicon alloy
- Available freeze sensor connection kit to activate a monitoring system that trigger alerts for low and freezing temperatures
 - Built-in Wi-Fi function to communicate freeze alerts directly to the user, eliminating the need for a third-party controller
 - Included standalone sensor to provide flexibility in locating a measuring tool at or near any water-carrying outdoor installation vulnerable to freezing conditions
 - Switched output relay to augment BMS or irrigation management systems with reinforced control of sprinkler systems

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product. Inquire with governing authorities for local installation requirements.

Specification

An antisiphon pressure 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 a backpressure condition can develop. The assembly shall 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' notched guides. The Lead Free* Antisiphon 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, shall be a Watts Series LF800M4QT, and shall include a freeze sensor.

Model/Option

FZ Freeze sensor

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* cast copper silicon alloy

Pressure — Temperature

Temperature Range: 33°F to 140°F (0.5°C to 60°C)

Maximum Working Pressure: 150 psi (10.3 bar)

Standards

ANSI, USC Manual Section 10

Approvals



Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California, Manual Section 10. 1/2", 3/4", 1 1/4", 1 1/2", 2"; 1" pending CSA 1/2" to 2"

Installation

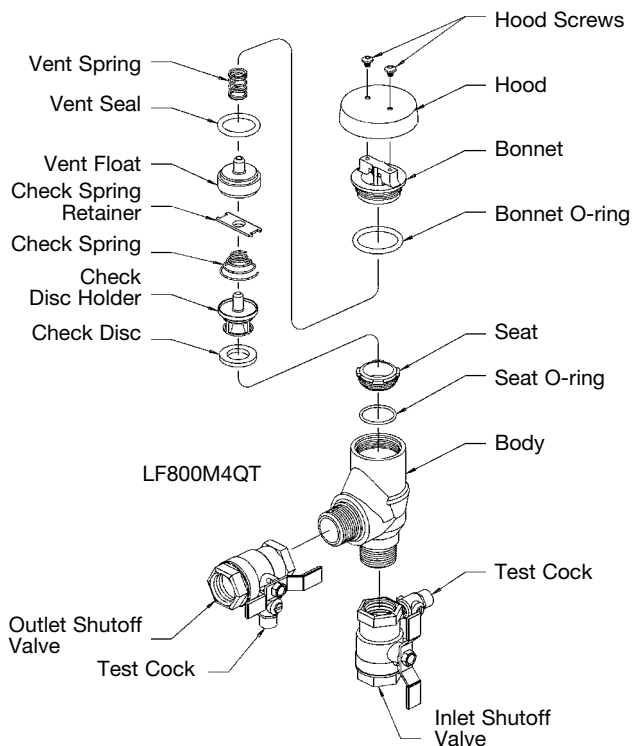
This valve is designed for installation in a continuous pressure potable water supply system 12" above the highest point of the downstream piping. The valve must be installed with the supply connected to the bottom and in a vertical position. Allow adequate space for periodic inspection, servicing, or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

NOTICE

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 using good plumbing practice.

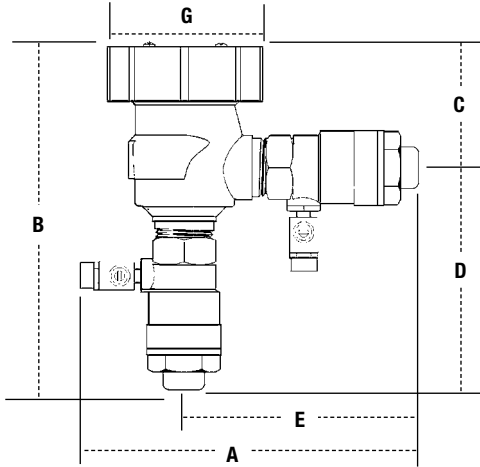
Insulated Enclosure

WattsBox Insulated Enclosure can be used for additional freeze protection. For more information, refer to ES-WB at watts.com.



Celcon is a registered trademark of Celanese Corporation.
Noryl is a registered trademark of SHPP Global Technologies B.V.

Dimensions – Weights



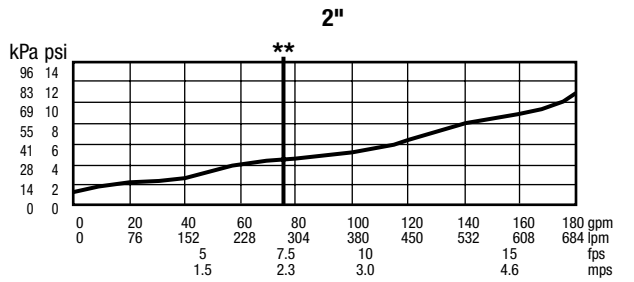
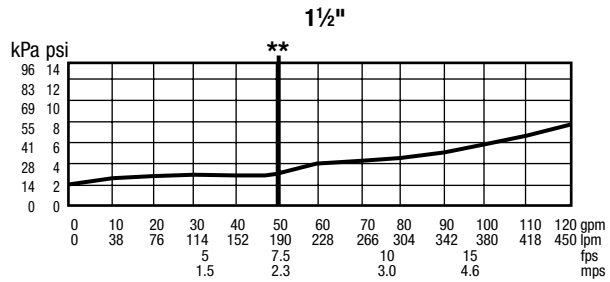
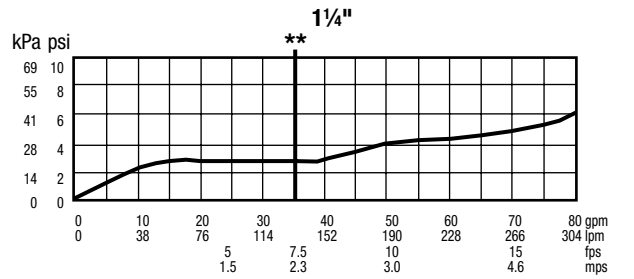
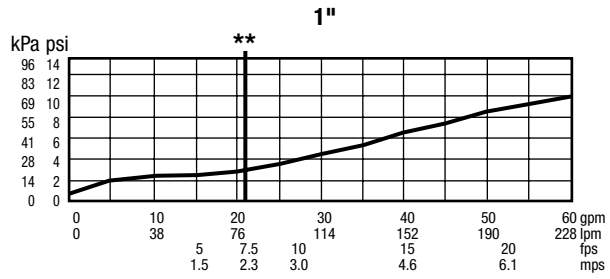
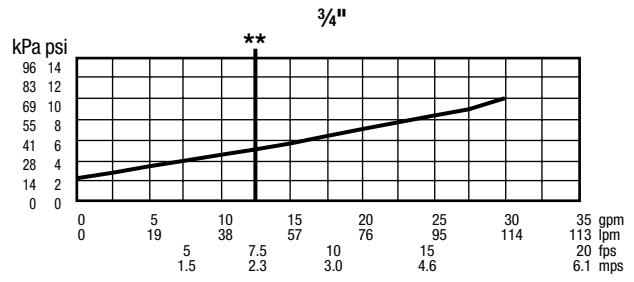
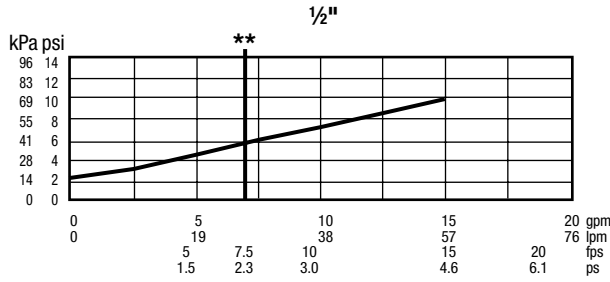
Call customer service if you need assistance with technical details.

MODEL	SIZE	DIMENSIONS												WEIGHT	
		A		B		C		D		E		G		lb	kg
		<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>		
LF800M4QT	1/2	6 1/8	156	6 1/4	159	2 9/16	65	3 1/16	94	3 7/8	98	2 1/4	57	4	1.8
LF800M4QT	3/4	6 1/2	165	6 1/2	165	2 9/16	65	3 9/16	100	4 1/8	105	2 1/4	57	4	1.8
LF800M4QT	1	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
LF800M4QT	1 1/4	8 7/8	225	9	229	3 1/4	83	5 3/4	146	6 1/8	156	5	127	11	5.0
LF800M4QT	1 1/2	9 1/4	235	9 1/2	241	3 1/4	83	6 1/4	159	6 3/8	162	5	127	14	6.3
LF800M4QT	2	10 5/8	270	9 5/8	245	3 1/4	83	6 3/8	162	7	178	5	127	19	8.6

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 ft/s)



USA: T: (978) 689-6066 • Watts.com
 Canada: T: (888) 208-8927 • Watts.ca
 Latin America: T: (52) 55-4122-0138 • Watts.com

