

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

MasterSeries® LF876W/WZ

Double Check Detector Backflow Prevention Assemblies (Type II)

Size: 4" - 10"

The FEBCO MasterSeries LF876W/WZ Double Check Detector Assembly is specifically designed to provide drop-in replacement of competitor's valves in either the N-pattern (LF870W) or Z-Pattern (LF870WZ) orientation. It protects against possible backpressure and backsiphonage conditions for non-health hazard (i.e., pollutant) application in accordance with Local Governing Water Utility Code.

The coating on this backflow assembly uses ArmorTek™ technology to resist corrosion due to microbial induced corrosion (MIC) or exposed metal substrate. This Backflow Assembly is primarily used on potable drinking water systems and fire sprinkler systems, where Local Governing Code mandates protection from non-potable quality water being pumped or siphoned back into the potable water system.

Features

Main Valve:

- Longer gate-to-gate length for drop-in replacement of longer valves
- Inline Serviceable Assembly
- Vertical Up/Vertical Down "N-Pattern" Installations
- Vertical-Up "Z-Pattern" Installations
- No Special Tools Required for Servicing
- Captured Modular Spring Assembly
- Reversible & Replaceable Discs
- Field Replaceable Seats
- Ductile Iron Valve Body Design
- Stainless Steel Check Components
- Utilizes advanced ArmorTek™ coating technology to resist corrosion of internals
- Winterization feature with disc retainers and valve body drain ports
- Clapper Check Assembly
- Commonality between 1st & 2nd Check Components
- Captured O-ring Design

Auxiliary Bypass:

- Compact Bypass Design; Remains within Main Valve Assembly Profile
- Inline Serviceable ¾" Check Assembly
- No Special Tools Required for Servicing
- Field Replaceable Seat & Disc
- Detect Potential Underground Water Leaks
- Detect Unauthorized Water Usage

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



Model LF876W Double Check Detector Assembly

Specifications

The FEBCO MasterSeries LF876W/WZ Double Check Detector Valve Assembly shall be installed on the potable water supply and at each point of cross-connection to protect against possible backpressure and backsiphonage conditions for non-health hazard (i.e., pollutant) applications. The assembly shall consist of a main line valve body composed of two (2) independently acting approved clapper style check modules with replaceable seats and disc rubbers. Servicing of both check modules does not require any special tools and are accessed through independent top entry covers. This assembly shall be fitted with approved UL/FM inlet/outlet resilient seated shutoff valves and contain four (4) properly located resilient seated test cocks as specified by AWWA Standard C510. The auxiliary bypass line contains a ⅝"x¾" Water Meter that complies with ANSI/AWWA Standard C700 coupled with an approved check assembly. The bypass line is designed to detect leaks or unauthorized water usage of the water system while protecting against possible backpressure and backsiphonage conditions for non-health hazard (i.e., pollutant) application. The valve body shall utilize a coating system with built-in electrochemical corrosion inhibitor and microbial inhibitor. The assembly shall be approved for horizontal and/or vertical-up installations while meeting the requirements of AWWA Standard C510 flow and pressure loss performance parameters.

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.

NOTICE

Inquire with governing authorities for local installation requirements



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Options - Suffix

- OSY: UL/FM Approved OS&Y Gate Valves [ANSI/AWWA C515 Compliant]
- CFM: Totalizing Cubic feet/min 5/8"x 3/4" Water Meter [ANSI/AWWA C700 Compliant]
- GPM: Totalizing Gallons/min 5/8"x 3/4" Water Meter [ANSI/AWWA C700 Compliant]
- LG: Less Shutoff valves; This is NOT an APPROVED ASSEMBLY

Example Ordering Description:

- 4" LF876W-OSY-GPM - Valve Assembly fitted with OS&Y Shutoff Valves & Gallons per Minute Water Meter
- 4" LF876WZ-OSY-CFM - Valve Assembly fitted with OS&Y Shutoff Valves & Cubic Feet per Minute Water Meter

Available Components

- Wye Strainer: FDA Approved [ASME B16.1 Class 125 & AWWA Class D Flange]

Materials

Below is a general materials list of the Model LF876W/WZ. All assemblies size 4" through 10" is similar in materials and construction. Please contact your local FEBCO Representative if you require further information.

- Main Valve Body: Ductile iron Grade 65-45-12
- Coating: Fusion epoxy coated internal and external AWWA C550-90
- Shutoff Valves: OSY resilient wedge gate valve AWWA C515 (UL/FM)
- Check Seats: Stainless Steel
- Disc Holder: Stainless Steel
- Elastomer Disc: Silicone
- Spring: Stainless Steel
- Clamp: AWWA C606

Approvals – Standards:

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California [FCCCHR-USC]
- ASSE 1048 Listed
- **UL Classified [US & Canada]
- **FM Approved
- IAPMO/cUPC
- AWWA Standard C510 Compliant
- End Connections: Compliant to ASME B16.1 Class 125 & AWWA Class D Flange

**Assembly configured with UL/FM Approved OS&Y RW Gate Valves. Less gate valve assemblies are not UL/FM approved configurations.

Assembly Flow Orientation:

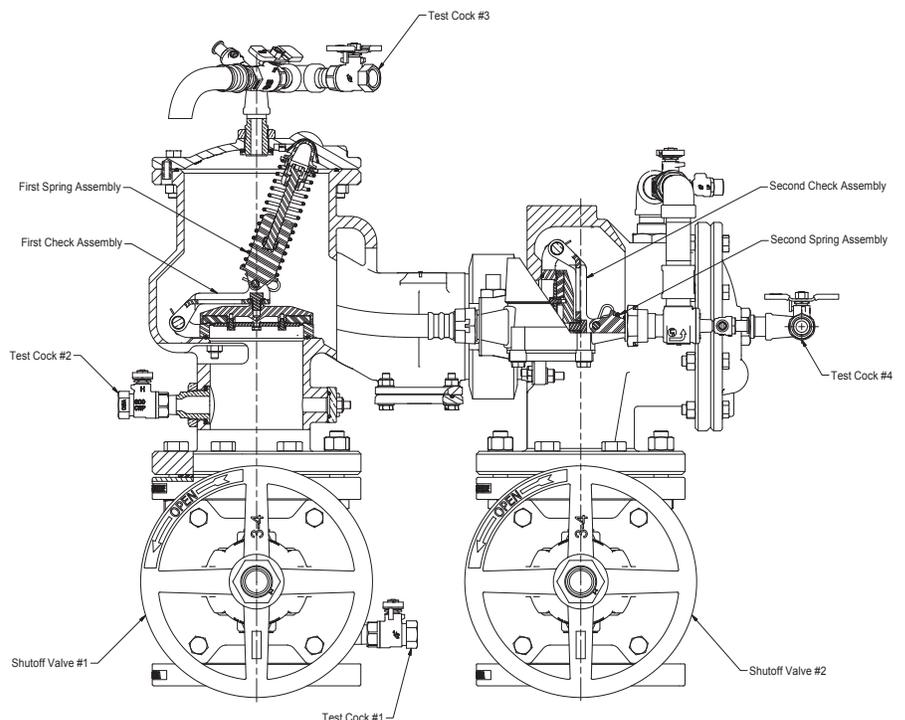
Horizontal (N-Pattern 4" – 10") - Approved by FCCCHR-USC, ASSE, cULus, FM, IAPMO/cUPC

Vertical Up (Z-Pattern 4" – 10") - Approved by FCCCHR-USC, ASSE, cULus, FM, IAPMO/cUPC



Pressure - Temperature

- Max. Working Pressure: 175psi (12.1 bar)
- Min. Working Pressure: 10psi (0.7 bar)
- Hydrostatic Test Pressure: 350psi (24.1 bar)
- Hydrostatic Safety Pressure: 700psi (48.3 bar)
- Temperature Range: 33°F - 140°F [0.5°C- 60°C] Continuous

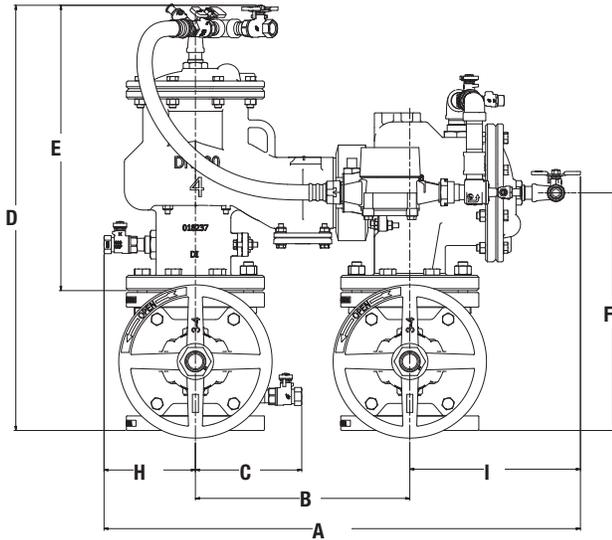


Dimensions – Weights

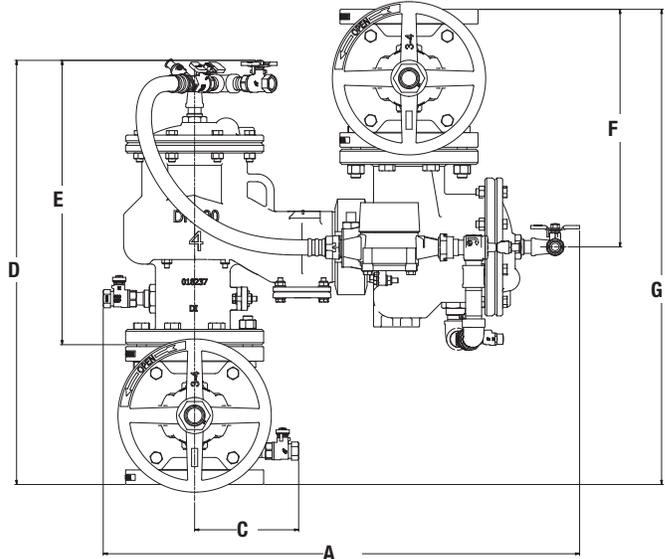
SIZE: 4" - 10"

Below are the nominal dimensions and physical weights for the Model LF876W size 4" through 10". Allowances must be made for normal manufacturing tolerances. Please visit our website to download a copy of this product's installation instructions, or contact your local FEBCO Representative for more information.

Model LF876W Standard Orientation (N-Pattern)

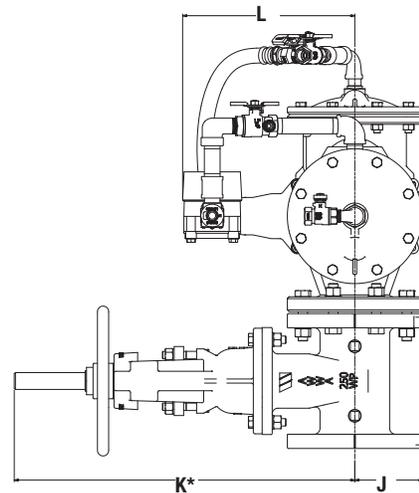


Model LF876W Vertical Orientation (Z-Pattern)



Note: The series LF876W/WZ is shipped in the standard (N-pattern) orientation as shown above.

Gate Valve Side View Clearance



LF876W/WZ

SIZE	DIMENSIONS														WEIGHT**															
	A (W)		A (Z)		B (W)		B (Z)		C		D		E		F		G		H		I		J		K*		L		OSY	
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg.
4	32 ³ / ₁₆	818	32 ³ / ₁₆	833	18 ⁵ / ₁₆	465	18 ⁵ / ₁₆	481	7	178	27 ³ / ₄	705	18 ³ / ₄	476	15 ¹ / ₂	394	31	787	6	152	11 ¹ / ₈	283	4 ¹ / ₂	114	23 ³ / ₄	591	13	330	347	157
6	34 ¹⁵ / ₁₆	887	37 ¹ / ₄	946	18 ¹ / ₁₆	475	21	533	8	203	32 ³ / ₄	831	22 ¹ / ₈	562	18 ³ / ₈	473	37 ¹ / ₄	946	7 ¹ / ₄	184	12 ¹ / ₂	316	5 ¹ / ₂	140	30 ³ / ₈	765	13	330	529	240
8	48	1219	49 ⁵ / ₁₆	1253	29	737	30 ⁵ / ₁₆	770	9 ¹ / ₄	235	36 ³ / ₄	933	25 ¹ / ₈	638	20 ³ / ₄	527	41 ¹ / ₂	1054	8 ¹ / ₂	216	14	356	6 ³ / ₄	172	37 ³ / ₄	959	14 ¹ / ₂	368	827	375
10	50 ¹ / ₁₆	1272	51 ³ / ₈	1304	29	737	30 ⁵ / ₁₆	533	10 ¹ / ₁₆	264	41 ¹ / ₁₆	1047	28 ¹ / ₈	714	23 ¹ / ₁₆	601	47 ³ / ₈	1202	9 ³ / ₈	244	15 ¹ / ₁₆	398	8	203	45 ³ / ₄	1162	13 ³ / ₈	333	1335	606

Notes:

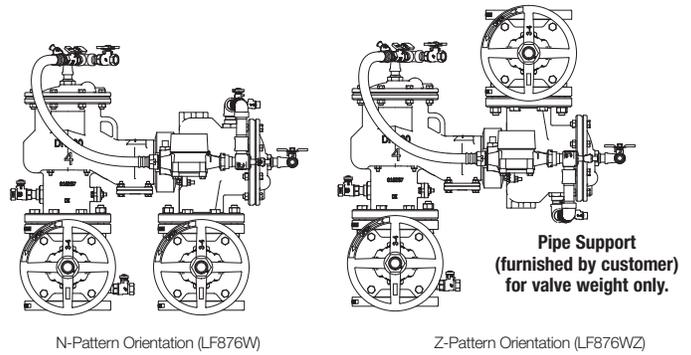
* Indicates nominal dimensions with OSY Gate Valves (Full Open Position)

** Indicates weight of complete Backflow Assemblies with specified Gate Valves

Performance

Flow capacity chart identifies valve performance based upon rated water Velocity up to 20fps

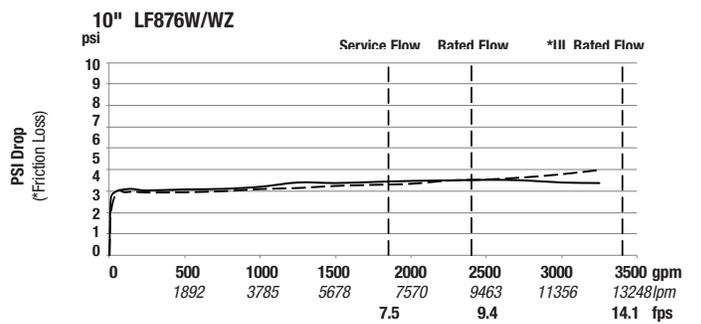
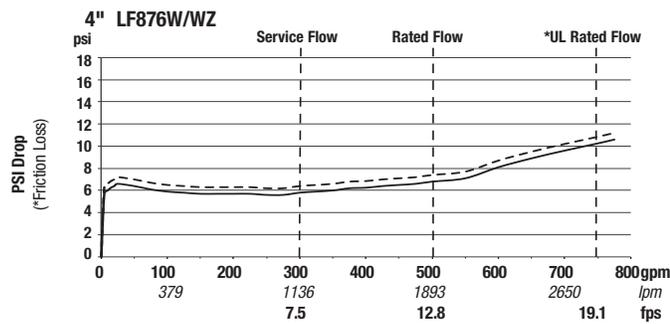
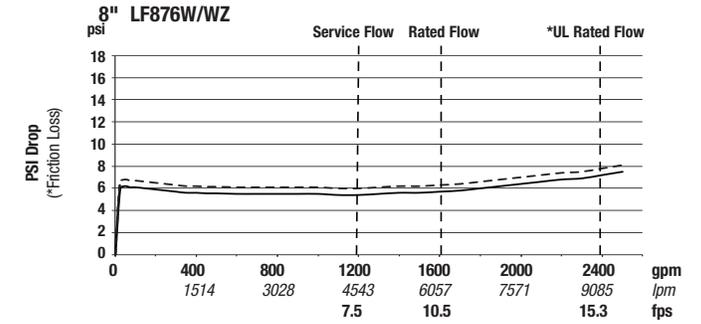
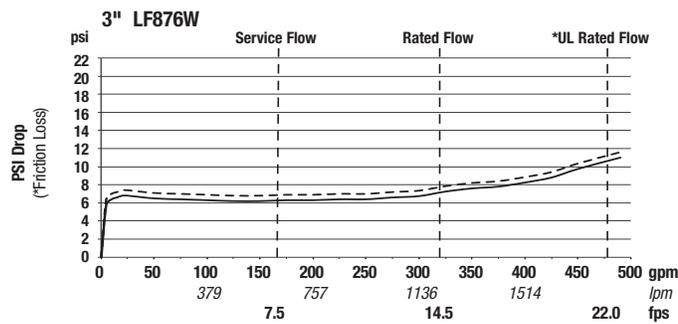
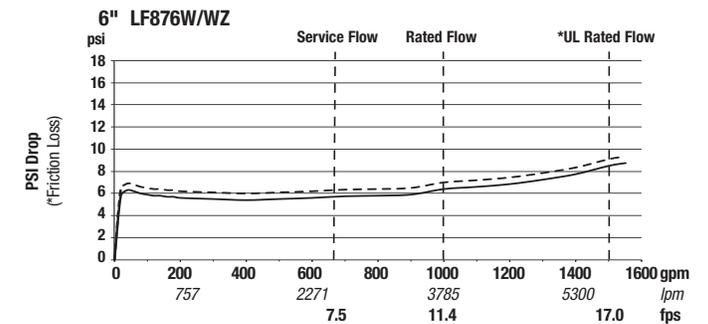
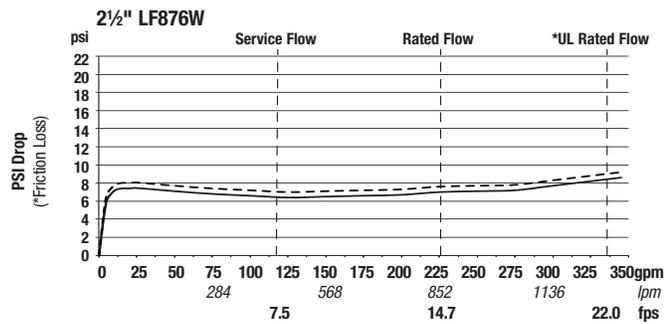
- Maximum service flow rate is determined by maximum rated Velocity of 7.5fps.
- AWWA Manual M-22 (Appendix C) recommends that the maximum water Velocity in the services be not more than 10fps.
- UL flow rate is determined by typically rated Velocity of 15 feet/sec.



Capacity

N-Pattern

Z-Pattern



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