SPECIFICATION SHEET

FEBCO®

LEAD FREE*

MasterSeries® LF876V

Double Check Detector Backflow Prevention Assemblies (Type II)

Size: 2½" - 8" (65mm - 200mm)

Model LF876V Double Check Detector Assembly

The FEBCO MasterSeries LF876V Double Check Detector Assembly is specifically designed to protect against possible backpressure and backsiphonage conditions for non-health hazard (i.e., pollutant) application in accordance with Local Governing Water Utility Code.

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:

- Inline Serviceable Assembly
- Horizontal "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
- 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" Backflow Assembly
- No Special Tools Required for Servicing
- Field Replaceable Seats & Discs
- Detect Potential Underground Water Leaks
- Detect Unauthorized Water Usage

Specifications

The FEBCO MasterSeries LF876V 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 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

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

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

Options - Suffix

OSY: UL/FM Approved OS&Y Gate Valves [ANSI/AWWA C515 Compliant]

CFM: Totalizing Cubic feet/min ⅝"x ¾" Water Meter [ANSI/AWWA C700 Compliant]

GPM: Totalizing Gallons/min ⅝"x ¾" Water Meter [ANSI/AWWA C700 Compliant]

LG: Less Shutoff valves; This is NOT an APPROVED ASSEMBLY

Example Ordering Description:

4" LF876V-OSY-GPM - Valve Assembly fitted with OS&Y Shutoff Valves & Gallons per Minute Water Meter

4" LF876V-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]

Series 611 Valve Setter: MJ x MJ - Mechanical Joint x Mechanical Joint [AWWA C111/A21.11]

MJ x FL - Mechanical Joint x Flange [AWWA C111/A21.11; ASME B16.1 Class 125/ AWWA Class D Flange]

FL x FL – Flange x Flange [ASME B16.1 Class 125 & AWWA Class D Flange]

Materials

Below is a general materials list of the Model LF876V. All assemblies size 2½" through 8" 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:

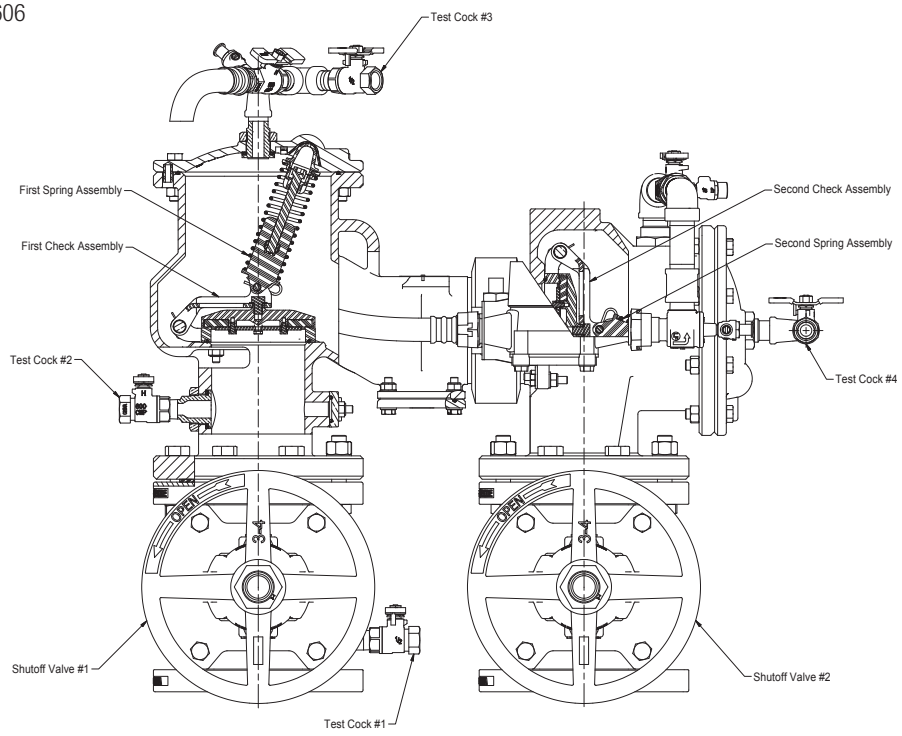
Horizontal (N-Pattern 2½" – 8") - Approved by FCCCHR-USC, ASSE, cULus, FM, IAPMO/cUPC

Vertical Up (Z-Pattern 2½" – 8") - Approved by FCCCHR-USC, ASSE, cULus, FM, IAPMO/cUPC

1048 B64.5

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

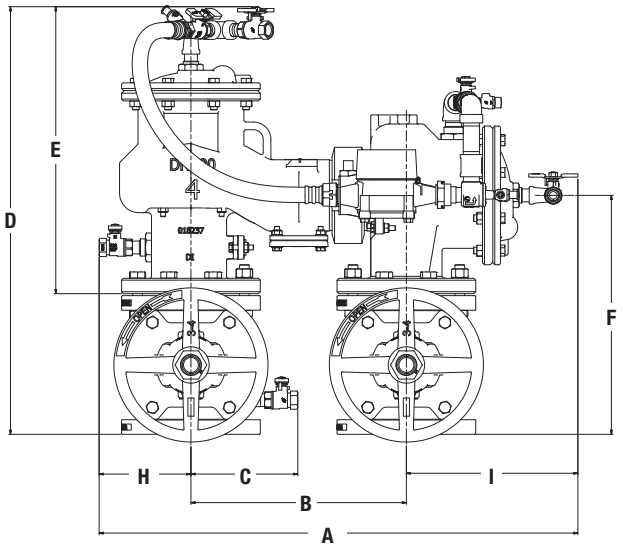


Dimensions – Weights

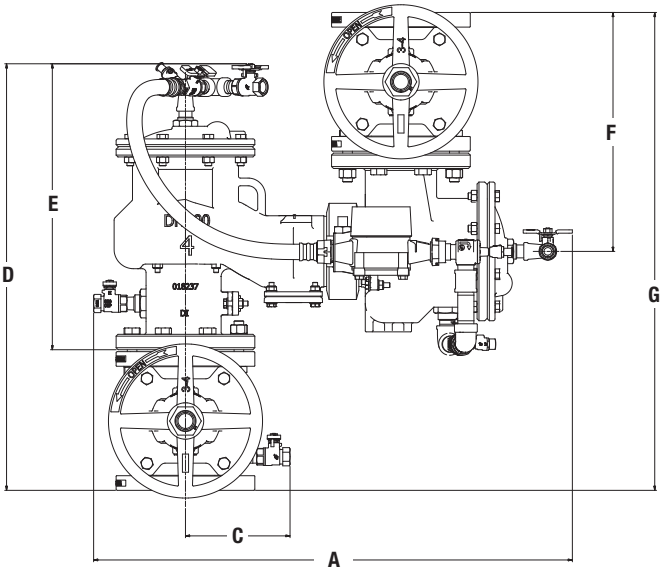
Size: 2½" - 8"

Below are the nominal dimensions and physical weights for the Model LF876V size 2½" through 8". 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 LF876V Standard Orientation (N-Pattern)

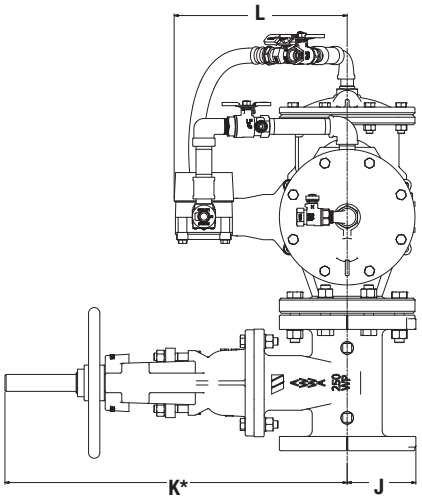


Model LF876V Vertical Orientation (Z-Pattern)



Note: The Series LF876V is shipped in the standard (N-Pattern) orientation as shown above.

Gate Valve Side View Clearance



LF876V

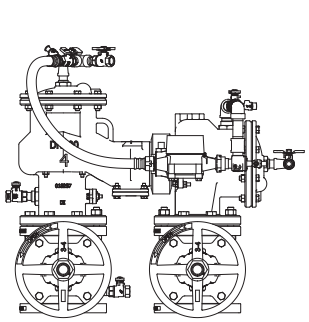
SIZE (DN)		DIMENSIONS																						WEIGHT**	
		A		B		C		D		E		F		G		H		I		J		K*		L		OSY	
in.	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kg.*
2½	65	29⅛	740	12½	318	6¼	159	25¼	642	17½	445	13⅝	346	27¼	692	5½	140	11⅛	283	3½	89	16⅜	416	11½	292	216	98
3	80	29⅛	740	12½	318	6¼	159	25¾	654	17¾	451	14⅛	359	28¼	718	5½	140	11⅛	283	3¾	95	22¼	565	11½	292	242	110
4	100	31⅛	791	14	356	7	178	27¾	705	18¾	476	15½	394	31	787	6	152	11⅛	283	4½	114	23¼	591	13	330	347	157
6	150	35¾	908	16	406	8	203	32¾	831	22⅛	562	18⅝	473	37¼	946	7¼	184	12½	316	5½	140	30⅛	765	13	330	529	240
8	200	40¾	1035	18½	470	9¼	235	36¾	933	25⅛	638	20¾	527	41½	1054	8½	216	14	356	6¾	172	37¾	959	14½	368	827	375

Notes:
* Indicates nominal dimensions with OSY Gate Valves (Full Open Position)
** Indicates weight of complete Backflow Assemblies with specified Gate Valves

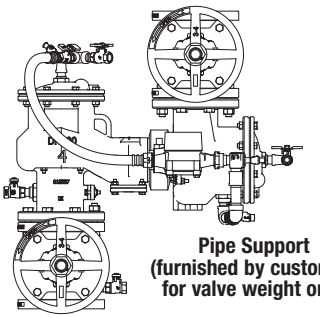
Performance

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.



Standard Orientation "N-Pattern"
Flow Curve N



Vertical Orientation "Z-Pattern"
Flow Curve Z

Capacity

N-Pattern Z-Pattern