Backflow Preventers

Used on boiler feed lines to prevent boiler water from returning to the potable water system. Boiler water may contain chemicals and bacteria that could contaminate the potable water system.

Series 9D

Dual Check Valve with Intermediate Atmospheric Vent

Sizes: ½" M3 (15mm), ¾" M2 (20mm)

Series 9D is designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications for smaller supply lines such as laboratory equipment, processing tanks, sterilizers, and dairy equipment. It is ideally suited for boiler feed lines to prevent backflow when supply pressure falls below system pressure.

Series 9D is suitable for use on hot or cold water and can be used under continuous pressure. It features a primary check valve utilizing a rubber disc seating against a mating rubber part to ensure tight closing. A secondary check valve utilizes a rubber disc-to-metal seating. In the event of fouling of the downstream check valve, leakage would be vented to atmosphere through the vent port thereby safeguarding the potable water system. Construction is brass body with stainless steel working parts, integral strainer and durable rubber discs. Female union inlet and outlet connections. Sizes ½" (15mm) and ¾" (20mm). Drain is ½" (15mm) thread connection.

9DM2

9DM3

Features

- True line-sized construction allows the check modules to open further allowing dirt and debris to pass more freely reducing check fouling
- Stainless steel internal parts
- Maximum flow at low pressure drop
- Furnished with union connections to facilitate removal and replacement for maintenance
- Compact for economy combined with performance
- Design simplicity for easy maintenance
- Can be installed vertically or horizontally

Approvals

39769

N.Y.C. BSA 104-75-SM
Tested and approved Conformance with Standard 1012 of the American Society of Sanitary Engineers and by all principal cities, states and areas having these requirements.

IMPORTANT

This valve should only be used and properly installed so that spillage of water could not cause damage. To avoid water damage due to valve operation, a drain pipe must be installed. It should terminate approximate 12" (305mm) above a floor drain or through an air gap piped to a floor drain, or other suitable place of disposal. Under no circumstances, should the vent opening or drain line be plugged.

For additional information, reference literature ES-9DM3/M2.

Options

Suffix:

S – for ½" (15mm) union end solder connections

SC – for satin chrome finish

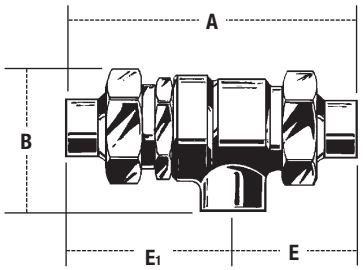
LU – less union

Pressure - Temperature

Maximum Working Pressure: 175psi (12.1 bar)

Maximum Required Pressure: 25psi (172 kPa)

Temperature Range: 33°F – 250°F (0.5°C – 121°C)



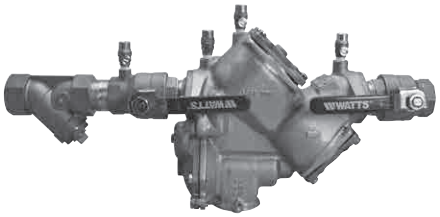
Dimensions — Weights

MODEL	SIZE	DIMENSIONS								WEIGHT	
		A		B		E		E1			
	in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kg.*
9DM3	½	4 15/16	125	2 9/16	65	1 15/16	49	2 9/16	65	1½	.68
9DM3-S	½	4⅜	111	2 9/16	65	1 15/16	49	2 9/16	65	1½	.68
9DM2	¾	4½	114	2 9/16	65	1 15/16	49	2 9/16	65	1¾	.79
9DM2	¾	4 13/16	122	2 9/16	65	2 1/16	52	2¾	70	1¾	.79

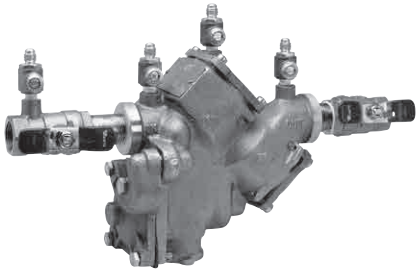
Series LF909

Reduced Pressure Zone Assemblies

LF909 Sizes: ¾", 1" (20, 22mm) / LF909M1 Sizes: 1¼", 1½", 2" (32, 40, 50mm)



LF909



LF909QT

LEAD FREE* Series LF909 Reduced Pressure Zone Assemblies are designed to provide superior cross-connection control protection of the potable water supply in accordance with national plumbing codes and containment control for water authority requirements. This series can be utilized in a variety of installations, including health hazard cross-connections in plumbing systems or for containment at the service line entrance. The LF909 features Lead Free* construction to comply with Lead Free* installation requirements. Model LF909QT, standardly furnished with full port, resilient seated and Lead Free* cast copper silicon alloy ball valve shutoffs. Sizes ¾" and 1" shutoffs have tee handles.

Features

- Modular design
- Replaceable seats
- Compact for installation ease
- Horizontal or vertical (up or down) installation
- No special tools required for servicing

Pressure — Temperature

Temperature Range: 33°F – 140°F
(0.5°C – 60°C) continuous
180°F (82°C) intermittent
Maximum Working Pressure: 175psi
(12.1 bar)

Series LF909HW

Temperature Range: 33°F – 210°F
(0.5°C – 99°C)
Maximum Working Pressure: 175psi
(12.1 bar)

Approvals

Listed by IAPMO
Listed by SBCCI

1013 B64.4

‡Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.

Horizontal and vertical "flow-up" approval on ¾" and 1" sizes (model LF909QT)

For additional information, reference literature ES-LF909S.

Models

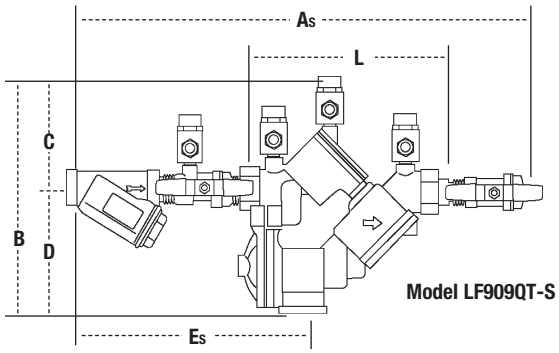
Suffix:

QT — Quarter-turn ball valves

S – Bronze strainer

HW –Stainless steel check modules for hot and harsh water conditions

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



Model LF909QT-S

Dimensions — Weights

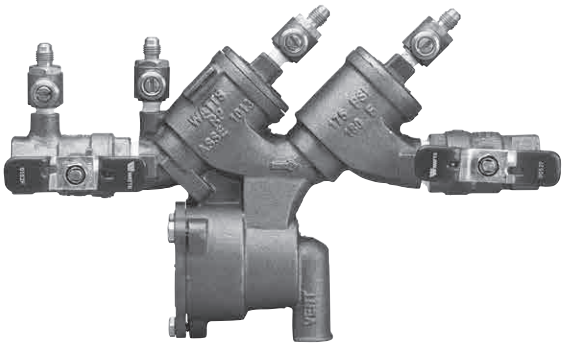
SIZE	DIMENSIONS																		WEIGHT			
	A		As		B		C		D		E		Es		L		P		QT		QT-S	
	in.	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*	*lbs.*	*kgs.*
¾"	14⅜	365	18 1/16	459	8¾	222	4	102	4¾	121	6¾	171	10 3/16	259	7 5/16	186	3⅜	98	14	6.4	15.6	7.1
1"	15⅜	391	19⅝	498	8¾	222	4	102	4¾	121	7	178	11	279	7 5/16	186	3⅜	98	15	6.8	17.5	7.9
1¼"M1	18½	470	23 7/16	595	11⅝	295	5½	140	6½	165	7½	191	12 3/16	310	10⅜	264	5¼	133	40	18.1	42.8	19.4
1½"M1	19	483	24⅜	619	11⅝	295	5½	140	6½	165	7½	191	12⅝	321	10⅜	264	5¼	133	40	18.1	44.0	20.0
2"M1	19½	495	25 15/16	659	11⅝	295	5½	140	6½	165	7¾	197	13 15/16	354	10⅜	264	5¼	133	40	18.1	47.4	21.5

Subscript 'S' = strainer model

Series LF919 / 919

Reduced Pressure Zone Assemblies

LF919 Sizes: ¾" – 2" (20 – 50mm) /
919 Sizes: ¼" – 2" (8 – 50mm)



LF919QT

Features

- Separate access covers for the check valves and relief valve for ease of maintenance
- Top entry-all check internals easily accessible
- Chloramine resistant rubber elastomers
- Check valve poppet assemblies are fully guided by innovative plastic seat guide
- Replaceable push-in check valve and relief valve seats eliminates threads from the water way
- EZ twist relief valve cover quarter-turn locking joint captures the spring load during repair to facilitate disassembly
- Innovative check valve plastic cover bushing provides trouble free guiding of the check valve poppet
- Bottom mounted relief valve provides reduced installation clearances
- Compact, space saving design
- No special tools required for servicing
- Top mounted test cocks for ease in testing and reduced installation clearances
- Standardly furnished with NPT body connections

Pressure-Temperature

Temperature Range: 33°F – 180°F
(0.5°C – 82°C)
Maximum Working Pressure: 175psi
(12.1 bar)

LF919

LEAD FREE

Series LF919 Reduced Pressure Zone Backflow Assemblies are designed to protect potable water supplies in accordance with national plumbing codes and water authority requirements. This series can be used in a variety of installations, including the prevention of health hazard cross-connections or for containment at the service line entrance.

This series features two poppet style check valves, replaceable check seats, with an intermediate relief valve. Its compact modular design facilitates easy maintenance and assembly access. Sizes ¾" – 1" (5 – 25mm) shutoffs have tee handles. The LF919 features Lead Free* construction to comply with Lead Free* installation requirements.

Models

Suffix:

QT – quarter-turn ball valves

S – bronze strainer

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

Approvals

1013

Approved by the Foundation for Cross-Connection Control and Research at The University of Southern California.

919

For Use in Non-Potable Applications

Series 919 Reduced Pressure Zone Backflow Assemblies are designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as irrigation, fireline, or industrial processing. Sizes ¼" – 1" shutoffs have tee handles.

Materials

- Body: Bronze
- Discs: Silicone rubber
- Check Seats: Replaceable polymer
- Cover Bolts: Stainless steel

Models

Suffix:

QT – quarter-turn ball valves
S – bronze strainer
LF – without shutoff valves
AQT – elbow fitting for 360° rotation
ZQT – inlet & outlet flow up

Prefix:

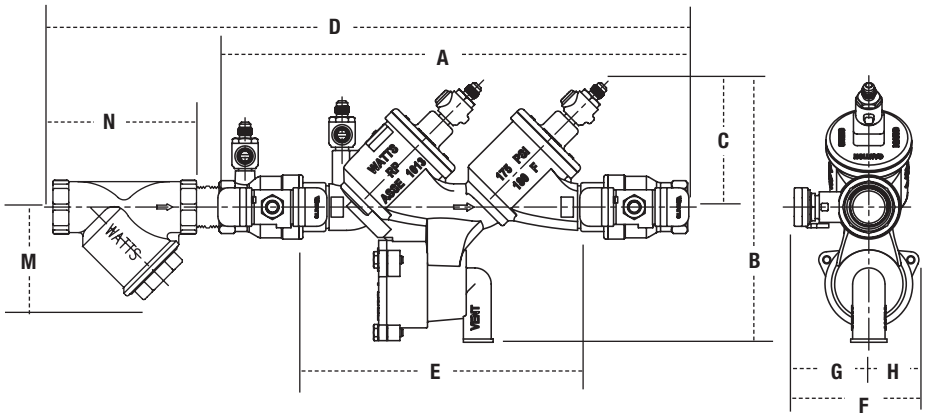
U – union connections

Approvals

1013 ¾"-2" LF

Approved by the Foundation for Cross-Connection Control and Research at The University of Southern California (for sizes ¾" -2")

Dimensions — Weights



LF919QT, LF919QT-S / 919QT, 919QT-S

SIZE	DIMENSIONS																STRAINER DIMENSIONS				WEIGHT			
	A		B		C		D		E (LF)		F		G		H		M		N		919QT		919QT-S	
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*	*lbs.*	*kgs.*
¼	9½	241	6⅞	175	2⅞	73	12⅜	314	5¾	146	3	75	1⅜	35	1⁹⁄₁₆	40	2⅜	60	2½	64	5.8	2.6	6.3	2.9
⅜	9½	241	6⅞	175	2⅞	73	12⅜	314	5¾	146	3⅓	84	1¾	44	1⁹⁄₁₆	40	2⅜	60	2½	64	5.8	2.6	6.3	2.9
½	9½	241	6⅞	175	2⅞	73	12¾	324	5¾	146	3⅜	86	1⅞	48	1⁹⁄₁₆	40	2¾	70	2¼	57	5.8	2.6	6.3	2.9
¾	12⅛	307	7⁷⁄₁₆	188	3½	88	15½	393	7¹¹⁄₁₆	195	3⅝	92	2¹⁄₁₆	52	1⁹⁄₁₆	40	1⅝	41	3³⁄₁₆	81	8.3	3.7	10.0	4.5
1	14½	368	8	202	3⅞	98	19³⁄₁₆	487	9³⁄₁₆	233	4	102	2⁷⁄₁₆	62	1⁹⁄₁₆	40	2⅛	54	3¾	95	11.8	5.4	13.8	6.3
1¼	18⅛	461	11⁷⁄₁₆	290	5⅛	129	23¼	591	11¹¹⁄₁₆	297	5⅛	130	2⅝	67	2½	64	2½	64	4⁷⁄₁₆	113	22.3	10.1	26.3	11.9
1½	18¾	476	11⁷⁄₁₆	290	5⅛	129	25¹⁄₁₆	637	11¹¹⁄₁₆	297	5⅝	143	3⅛	79	2½	64	3	76	4⅞	124	28.3	12.8	32.0	14.5
2	21¹⁄₁₆	535	12¹⁄₁₆	307	5⅝	142	28¹³⁄₁₆	732	13⅜	340	5¹⁵⁄₁₆	151	3⁷⁄₁₆	87	2½	64	3⁹⁄₁₆	90	5¹⁵⁄₁₆	151	37.3	16.9	45.0	20.4

For additional information, reference literature ES-919 or ES-LF919.