

Engineering Specification

Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

LEAD FREE*

Series LF009 Reduced Pressure Zone Assemblies

Sizes: 1/4" – 3"

Series LF009 Reduced Pressure Zone 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 in piping systems or for containment at the service line entrance. The coating on this backflow assembly uses ArmorTek™ technology to resist corrosion due to microbial induced corrosion (MIC) or exposed metal substrate.* The LF009 features Lead Free* construction to comply with Lead Free* installation requirements.

This series features two in-line, independent check valves, captured springs and replaceable check seats with an intermediate relief valve. Its compact modular design facilitates easy maintenance and assembly access. Sizes 1/4" – 1" shutoffs have tee handles.

Features

- Single access cover and modular check construction for ease of maintenance
- Top entry – all internals immediately accessible
- Captured springs for safe maintenance
- Internal relief valve for reduced installation clearances
- Replaceable seats for economical repair
- Utilizes advanced ArmorTek™ coating technology to resist corrosion of internals*
- Lead Free* cast copper silicon alloy body construction for durability 1/4" – 2"
- Fused epoxy coated cast iron body 2 1/2" and 3"
- Ball valve test cocks — screwdriver slotted 1/4" – 2"
- Large body passages provides low pressure drop
- Compact, space saving design
- No special tools required for servicing

Specifications

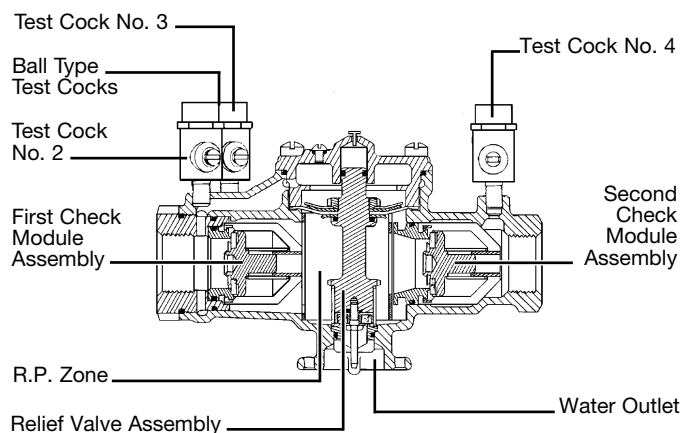
A Reduced Pressure Zone Assembly shall be installed at each potential health hazard location to prevent backflow due to backsiphonage and/or backpressure. The assembly shall consist of an internal pressure differential relief valve located in a zone between two positive seating check modules with captured springs and silicone seat discs. Seats and seat discs shall be replaceable in both check modules and the relief valve. There shall be no threads or screws in the waterway exposed to line fluids. Service of all internal components shall be through a single access cover secured with stainless steel bolts. Body and shutoffs shall be constructed using Lead Free* cast copper silicon alloy materials. Lead Free* reduced pressure zone assembly shall comply with state codes and standards, where applicable, requiring reduced lead content.

The assembly shall also include two resilient seated isolation valves, four resilient seated test cocks and an air gap drain fitting. The valve body shall utilize a coating system with built in electrochemical corrosion inhibitor and microbial inhibitor.* The assembly shall meet the requirements of: USC; ASSE Std. 1013; AWWA Std. C511; CSA B64.4. Shall be a Watts Series LF009.

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.



LF009



**Now Available
WattsBox Insulated Enclosures.**

For more information, send for literature ES-WB.

NOTICE

Inquire with governing authorities for local installation requirements

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.

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

* Armortek coating applies to the 2 1/2" and 3" models only.

WATTS®

Available Models: 1/4" – 2"

Suffix:

- QT – quarter-turn ball valves
 S – strainer
 LF – without shutoff valves
 PC – internal polymer coating
 W/Press** – press inlet x press outlet (1/2" – 2" only)

Prefix:

- U – union connections

Available Models: 2 1/2" – 3"

Suffix:

- NRS – non-rising stem resilient seated gate valves
 OSY – UL/FM outside stem and yoke resilient seated gate valves
 S-FDA – FDA epoxy coated strainer
 LF – without shutoff valves

Note: The installation of a drain line is recommended. When installing a drain line, an air gap is necessary (see ES-AG).

Materials: 1/4" – 2"

Lead Free* cast copper silicon alloy body construction, silicone rubber disc material in the first and second check plus the relief valve. Replaceable polymer check seats for first and second checks. Removable Relief valve seats. Stainless steel cover bolts.

Standardly furnished with NPT body connections. Model LF009QT furnished with quarter-turn, full port, resilient seated, Lead Free* cast copper silicon alloy body ball valve shutoffs.

Materials: 2 1/2" and 3"

- (FDA approved) Epoxy coated cast iron unibody with plastic seats
- Relief valve with stainless steel seat and trim
- Lead Free cast copper silicon alloy body ball valve test cocks

Pressure / Temperature

Sizes 1/4" – 2" Suitable for supply pressure up to 175psi (12.1 bar). Water temperature: 33°F – 180°F (0.5° – 82°C).

Sizes 2 1/2" and 3" are suitable for supply pressures up to 175psi (12.1 bar) and water temperature at 110°F (43°C) continuous, 140°F (60°C) intermittent.

Standards

- USC
 ASSE No. 1013
 AWWA C511
 CSA B64.4
 IAPMO File No. 1563.



Approvals

ASSE, AWWA, CSA, IAPMO

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

Approval models QT, PC, NRS, OSY.

UL Classified

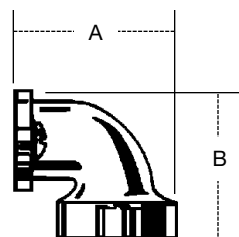
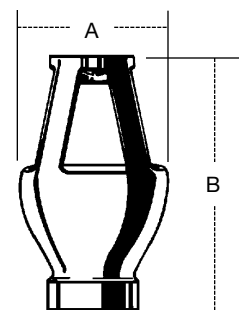
2 1/2" and 3" with OSY gate valves.

3/4" - 2" without shutoff valves (-LF) (except LF009M3LF)

Air Gaps and Elbows

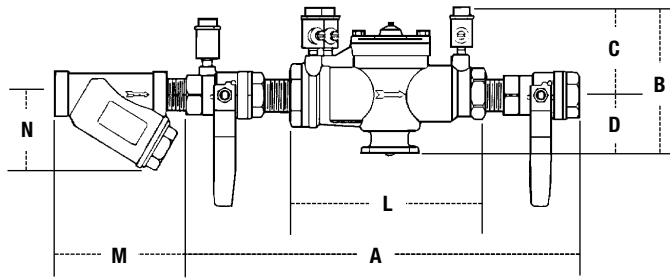
MODEL	DRAIN OUTLET	DIMENSIONS				WEIGHT		
		for 909, 009 and 993 sizes		A		B		lbs.
	<i>in.</i> <i>mm</i>	<i>in.</i> <i>mm</i>	<i>in.</i> <i>mm</i>	<i>in.</i> <i>mm</i>	<i>lbs.</i>	<i>kgs.</i>		
909AGA	1/4"-1/2" 009, 3/4" 009M2/M3	1/2 13	2 3/8 60	3 1/8 79	0.625	0.28		
909AGC	3/4"-1" 009/909, 1"-1 1/2" 009M2	1 25	3 1/4 83	4 7/8 124	1.5	0.68		
909AGF	1 1/4"-2" 009M1, 1 1/4"-3" 009/909, 2" 009M2, 4"-6" 993	2 51	4 3/8 111	6 3/4 171	3.25	1.47		
909AGK	4"-6" 909, 8"-10" 909M1	3 76	6 3/8 162	9 3/8 244	6.25	2.83		
909AGM	8"-10" 909	4 102	7 3/8 187	11 1/4 286	15.5	7.03		
909ELA	1/4"-1/2" 009, 3/4" 009M2/M3	- -	- -	- -	-	-		
909ELC	3/4"-1" 009/909	- -	2 3/8 60	2 3/8 60	0.38	0.17		
* 909ELF	1 1/4"-2" 009M1, 1 1/4"-2" 009/909, 2" 009M2, 4"-6" 993	- -	3 3/8 92	3 3/8 92	2	0.91		
* 909ELH Vertical	2 1/2"-3" 009/909	- -	- -	- -	-	-		

** Viega ProPress® connections are optional factory-installed fitting on each end of the approved/certified assembly.



Dimensions – Weight

Size: 1/4" – 2" LF009

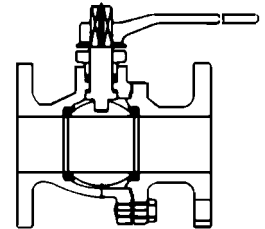
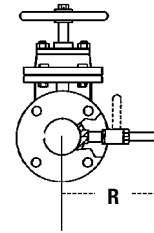
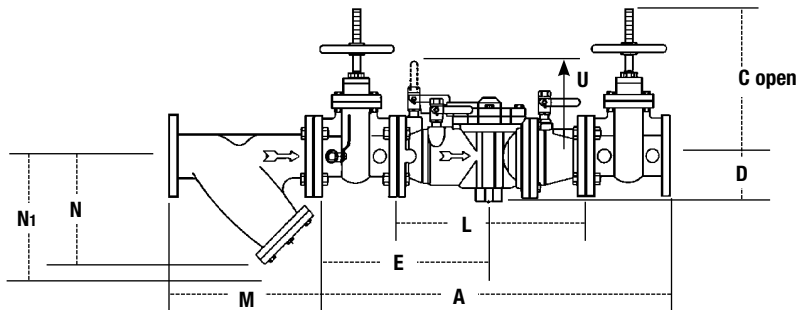


LF009 1/4" – 2"

SIZE		DIMENSIONS (APPROX.)								WEIGHT							
in.	mm	A		B		C		D		L		M		N		lbs.	kgs.
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm		
1/4	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140	2 3/8	60	2 1/2	64	5	2	
3/8	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140	2 3/8	60	2 1/2	64	5	2	
1/2	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140	2 3/4	70	2 1/4	57	5	2	
3/4	10 3/4	273	5	127	3 1/2	89	1 1/2	38	6 3/4	171	3 3/16	81	2 3/4	70	6	3	
1	14 1/2	368	5 1/2	140	3	76	2 1/2	64	9 1/2	241	3 3/4	95	3	76	12	5	
1 1/4	17 3/8	441	6	150	3 1/2	89	2 1/2	64	11 3/8	289	4 7/16	113	3 1/2	89	15	6	
1 1/2	17 1/8	454	6	150	3 1/2	89	2 1/2	64	11 1/8	283	4 7/8	124	4	102	16	7	
2	21 3/8	543	7 3/4	197	4 1/2	114	3 1/4	83	13 1/2	343	5 5/16	151	5	127	30	13	

Dimensions – Weight

Size: 2 1/2" and 3" LF009



**Watts G-4000 Series
QT – Ball Valves**

STRAINER SIZE		DIMENSIONS (APPROX.)				WEIGHT			
in.	mm	M		N		N ₁ †		lbs.	kgs.
		in.	mm	in.	mm	in.	mm		
2 1/2	65	10	254	6 1/2	165	9 3/4	248	28	12.7
3	80	10 1/8	257	7	178	10	254	34	15.4

†Clearance for servicing

MODEL	SIZE	DIMENSIONS (APPROX.)								WEIGHT							
		A		C		D		E		L		R		U			
	in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
LF009LF	2 1/2	—	—	—	—	4 1/2	114	—	—	18 1/8	460	—	—	10 5/8	270	76	34.5
LF009OSY	2 1/2	33 3/4	845	15 5/8	403	4 1/2	114	16 3/8	416	18 1/8	460	7 3/4	197	10 5/8	270	166	75.3
LF009NRS	2 1/2	33 3/4	845	11 3/8	289	4 1/2	114	16 3/8	416	18 1/8	460	7 3/4	197	10 5/8	270	161	73.0
LF009LF	3	—	—	—	—	4 1/2	114	—	—	18 1/8	460	—	—	10 5/8	270	76	34.5
LF009OSY	3	34 1/4	870	18 1/2	470	4 1/2	114	16 3/8	422	18 1/8	460	8 3/4	222	10 5/8	270	198	89.8
LF009NRS	3	34 1/4	870	12 3/4	324	4 1/2	114	16 3/8	422	18 1/8	460	8 3/4	222	10 5/8	270	191	86.6

Capacity

Performance as established by an independent testing laboratory.

*Typical maximum system flow rate (7.5 feet/sec., 2.3 meters/sec.)

