# **Engineering Specification**

Job Name	Contractor
Job Location	Approval
Engineer	Contractor's P.O. No.
Approval	Representative



# Series LF919 Reduced Pressure Zone Assemblies

### Sizes: 1/2" - 2"

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  $\frac{1}{2}$  – 1" shutoffs have tee handles. The LF919 features Lead Free\* construction to comply with Lead Free\* installation requirements.

#### **Features**

- Separate access covers for the check valves and relief valve for ease of maintenance
- Top entry-all check internals easily accessible
- All rubber elastomers of chloramine resistant material
- 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



## **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 a pressure differential relief valve located in a zone between two positive seating check valves. Seats and seat discs shall be replaceable in both check valves and the relief valve without the use of special tools. Service of all internal check valve components shall be through top mounted access covers threaded to the main valve body. The check valve poppet assembly shall be guided via the use of a corrosion resistant plastic guide. The check valve and relief valve seats shall be push-in type. The relief valve cover shall be secured with stainless steel bolts and shall utilize a guarter-turn locking joint to capture the spring load of the relief valve. The relief valve shall have an internal sensing line to sense the inlet water supply. All rubber elastomers shall be of chloramine resistant material. The assembly shall also include two resilient seated isolation valves, four topmounted resilient seated test cocks and an air gap drain fitting. The Lead Free\* Reduced Pressure Zone Assembly shall comply with state codes and standards, where applicable, requiring reduced lead content. The assembly shall be a Watts Series LF919.

#### **Now Available** WattsBox Insulated Enclosures. For more information, refer to literature ES-WB.

### 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.

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.



### Models

Suffix

QT	quarter-turn ball valves
S	bronze strainer

#### **Materials**

Body:	Lead Free* Cast Copper Silicon Alloy
Discs:	Silicone rubber
Check Seats:	Replaceable polymer
Cover Bolts:	Stainless steel

## Approvals

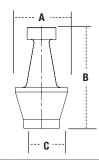


Approved by the Foundation for Cross-Connection Control and Research at The University of Southern California. (for sizes  $\frac{3}{4}$ "-2")

# Pressure - Temperature

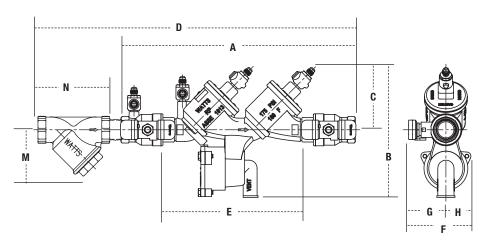
Temperature Range: 33°F – 180°F (0.5°C – 82°C) Maximum Working Pressure: 175psi (12.1 bar)

## Air Gaps



AIR GAP MODEL	SIZES		WEIGHT						
		1	Ą	E	3	C (I	NPT)		
		in. mm		in. mm		in.	mm	lbs.	kg
919AGC	1⁄4" – 1"	23/8	60	31/%	79	1/2	13	.63	.28
919AGF	11⁄4" – 2"	43/8	111	<b>8</b> 7⁄16	214	2	50	3.5	1.6

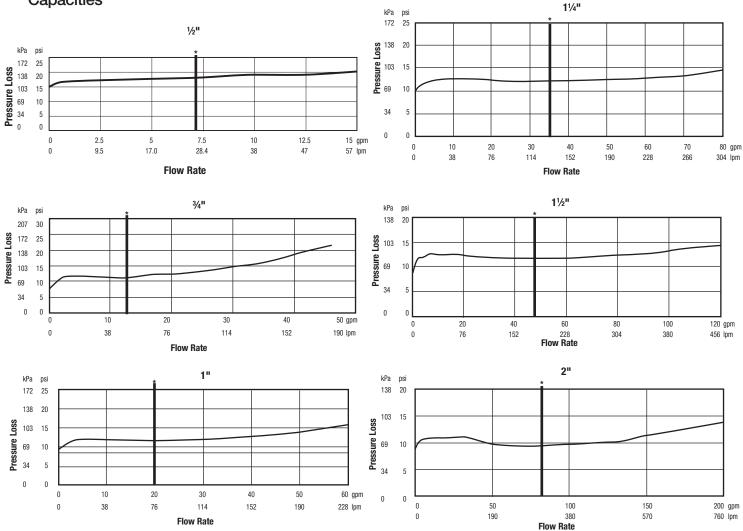
# Dimensions – Weights



#### LF919QT, LF919QT-S

SIZE	DIMENSIONS										STRAINER DIMENSIONS				WEIGHT							
	A		B		(	0	D	)	E (I	E (LF)		F		G		н		M		N		
in.	in.	тт	in.	тт	in.	тт	in.	тт	in.	тт	in.	тт	in.	mm	in.	mm	in.	mm	in.	тт	lbs.	kgs
1/2	<b>9</b> <sup>1</sup> / <sub>2</sub>	241	67/8	175	27/8	73	12 <sup>3</sup> /4	324	5 <sup>3</sup> /4	146	3 <sup>3</sup> /8	86	17/8	48	<b>1</b> <sup>9</sup> / <sub>16</sub>	40	2 <sup>3</sup> /4	70	2 <sup>1</sup> / <sub>4</sub>	57	5.8	2.6
3/4	12 <sup>1</sup> /8	307	77/16	188	<b>3</b> <sup>1</sup> / <sub>2</sub>	88	15 <sup>1</sup> /2	393	711/16	195	35/8	92	2 <sup>1</sup> / <sub>16</sub>	52	<b>1</b> <sup>9</sup> / <sub>16</sub>	40	1 <sup>5</sup> /8	41	<b>3</b> <sup>3</sup> / <sub>16</sub>	81	8.3	3.7
1	14 <sup>1</sup> /2	368	8	202	37/8	98	<b>19</b> <sup>3</sup> / <sub>16</sub>	487	<b>9</b> <sup>3</sup> / <sub>16</sub>	233	4	102	27/16	62	<b>1</b> 9/16	40	2 <sup>1</sup> /8	54	33/4	95	11.8	5.4
<b>1</b> <sup>1</sup> / <sub>4</sub>	18 <sup>1</sup> /8	461	<b>11</b> <sup>7</sup> / <sub>16</sub>	290	5 <sup>1</sup> /8	129	231/4	591	<b>11</b> <sup>11</sup> / <sub>16</sub>	297	5 <sup>1</sup> /8	130	25/8	67	<b>2</b> <sup>1</sup> / <sub>2</sub>	64	2 <sup>1</sup> / <sub>2</sub>	64	<b>4</b> <sup>7</sup> / <sub>16</sub>	113	22.3	10.1
<b>1</b> <sup>1</sup> / <sub>2</sub>	183/4	476	<b>11</b> <sup>7</sup> / <sub>16</sub>	290	5 <sup>1</sup> /8	129	25 <sup>1</sup> / <sub>16</sub>	637	<b>11</b> <sup>11</sup> / <sub>16</sub>	297	55/8	143	31/8	79	<b>2</b> <sup>1</sup> / <sub>2</sub>	64	3	76	4 <sup>7</sup> /8	124	28.3	12.8
2	<b>21</b> <sup>1</sup> / <sub>16</sub>	535	12 <sup>1</sup> /16	307	5 <sup>5</sup> /8	142	2813/16	732	13 <sup>3</sup> /8	340	5 <sup>15</sup> / <sub>16</sub>	151	37/16	87	<b>2</b> <sup>1</sup> / <sub>2</sub>	64	39/16	90	5 <sup>15</sup> /16	151	37.3	16.9

Capacities



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



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