

# Engineering Specification

Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

Contractor \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Contractor's P.O. No. \_\_\_\_\_  
 Representative \_\_\_\_\_

## Series U009 Reduced Pressure Zone Assemblies

1/2" – 2"

Series U009 Reduced Pressure Zone assemblies are designed to protect potable water supplies in accordance with national plumbing codes and water authority requirements. The swivel feature allows a variety of installations, including the prevention of health hazard cross-connections in piping systems or containment at the service line entrance.

Features include two in-line, independent check valves, captured springs, and replaceable check seats with an intermediate relief valve. Its compact modular design facilitates maintenance and assembly access. Sizes 1/2" to 1" shutoffs have tee handles.

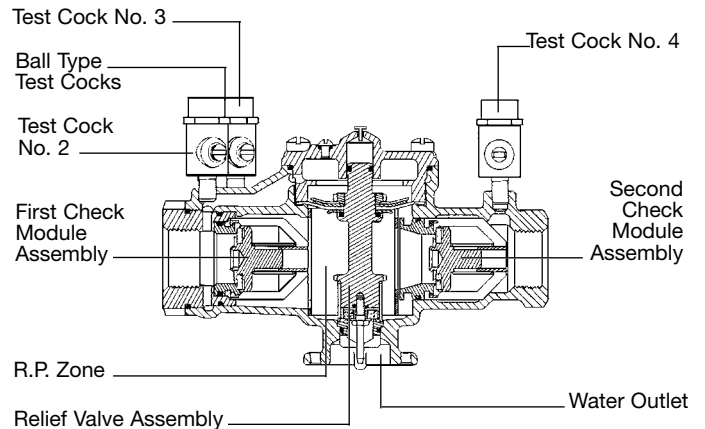
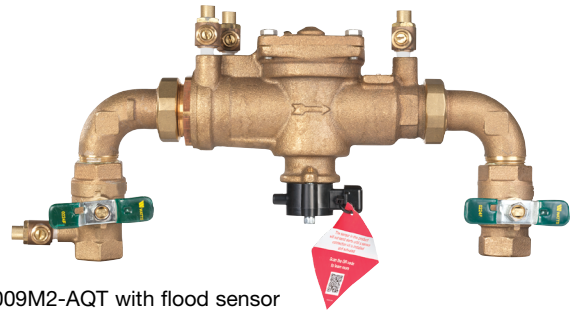
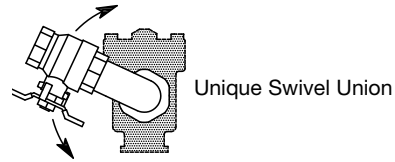
Series U009 includes a flood sensor to detect excessive water discharges from the relief valve. The sensor is installed on the assembly exterior and does not alter assembly functions or certifications. The sensor relays a signal that triggers notification to facility personnel who can take corrective action, thus avoiding the possibility of ruinous flooding and costly damage.

**NOTICE**

An add-on connection kit is required to activate the flood sensor. Without the connection kit, the sensor is a passive component that has no communication with any other device. (For more information, download RP/IS-009.)

### Features

- Unique swivel union
- Single access cover and modular check construction for ease of maintenance
- Top entry to all internals for immediate accessibility
- Captured springs for safe maintenance
- Internal relief valve for reduced installation clearances
- Replaceable seats for economical repair
- Bronze body construction for durability
- Ball valve test cocks — screwdriver slotted
- Large body passages provides low pressure drop
- Compact, space saving design
- No special tools required for servicing
- Sensor on the relief valve for flood detection



**NOTICE**

Use of the flood sensor does not replace the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of this product, including the need to provide proper drainage in the event of a discharge.

Watts is not responsible for the failure of alerts due to connectivity issues, power outages, or improper installation.

**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.

Inquire with governing authorities for local installation requirements.

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.



## Specification

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. The assembly shall also include two resilient seated isolation valves, four resilient seated test cocks, and an air gap drain fitting. The assembly shall meet the requirements of USC Manual 8th Edition\*; ASSE Std. 1013; AWWA Std. C511; CSA B64.4. Shall be a Watts Series U009, and shall include a sensor on the relief valve for flood detection.

## Model/Option

Prefix:

U – Union connections

Suffix:

AQT – Elbow fittings for 360° rotation (3/4" – 2")

FS – Flood detection sensor

LF – Without shutoff valves

PC – Internal polymer coating

QT – Quarter-turn ball valves

S – Bronze strainer

SH – Stainless steel ball valve handles

NOTE: The installation of a drain line is recommended. When installing a drain line, an air gap is necessary. (For more information download ES-AG/EL/TC at watts.com.)

## Materials

Body	Bronze
Discs	Silicone rubber
Check Seats	Replaceable polymer
Relief Valve Seat	Removable stainless steel
Cover Bolts	Stainless steel

## Insulated Enclosure

The WattsBox insulated enclosure is available for Series U009. For more information download ES-WB at watts.com.

## Pressure – Temperature

Maximum Working Pressure: 175 psi (12 bar)

Temperature Range: 33°F – 180°F (0.5°C – 82°C)

## Standards

USC Manual 8th Edition†

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

Approved models AQT, PC, QT

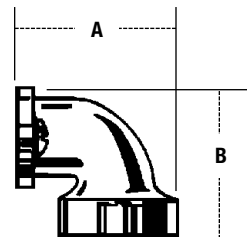
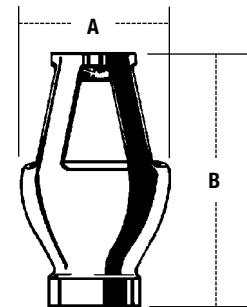
UL Classified (Models with LF suffixes)

## Air Gaps and Elbows

Call customer service if you need assistance with technical details.

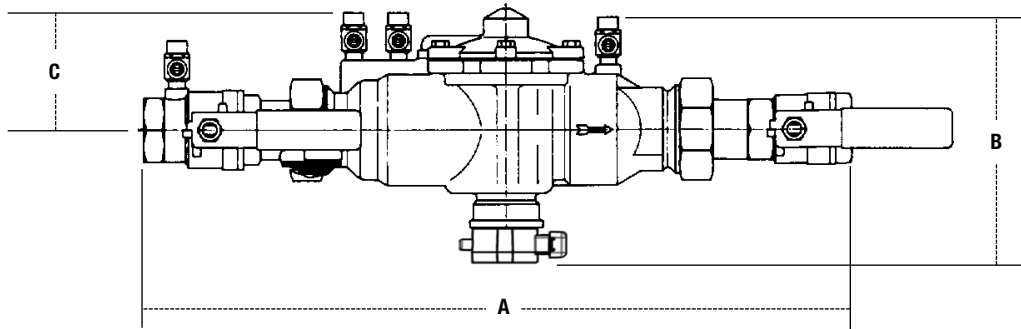
MODEL	DRAIN OUTLET for 909, U009, and 993 sizes	DIMENSIONS						WEIGHT	
		A		B				lb	kg
		in.	mm	in.	mm	in.	mm		
909AGA	1/4"-1/2" 009, 3/4" 009M2/M3	1/2	13	2 3/8	60	3 1/8	79	0.63	0.3
909AGC	3/4"-1" 009/909, 1"-1 1/2" 009M2	1	25	3 1/4	83	4 7/8	124	1.50	0.7
909AGF	1 1/4"-2" 009M1, 1 1/4"-3" 009/909, 2" 009M2, 4"-6" 993	2	51	4 3/8	111	6 3/4	171	3.25	1.5
909AGK	4"-6" 909, 8"-10" 909M1	3	76	6 3/8	162	9 5/8	243	6.25	2.8
909AGM	8"-10" 909	4	102	7 3/8	187	11 1/4	286	15.50	7.0
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	0.2
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	2.00	0.9
909ELH* Vertical	2 1/2"-3" 009/909	-	-	-	-	-	-	-	-

\*Epoxy coated



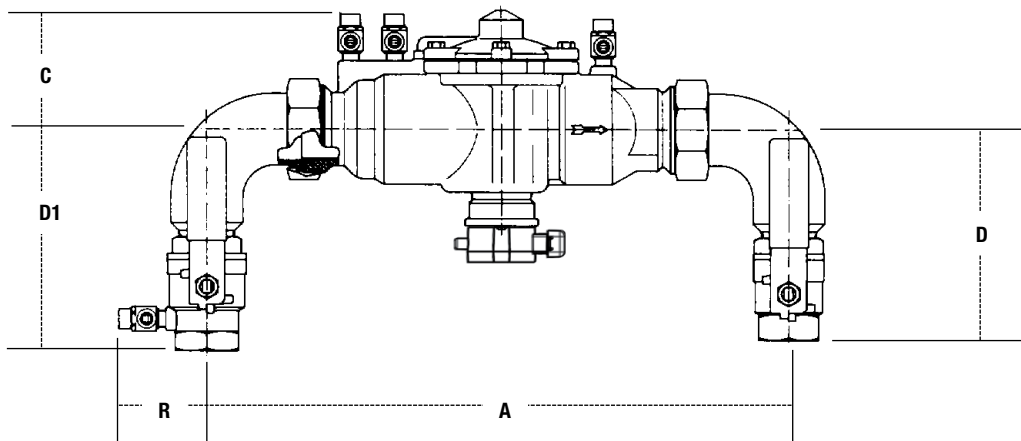
\*Does not indicate approval status.

## Dimensions and Weights



### U009QT

MODEL	SIZE	DIMENSIONS						WEIGHT	
		A		B		C		lb	kg
	in.	in.	mm	in.	mm	in.	mm		
U009QT	1/2	12 13/16	326	5 7/8	149	3 7/16	87	5.5	2.5
U009M2QT	3/4	13 3/4	349	6 1/4	159	3 3/4	95	6.0	2.7
U009M2QT	1	17 3/8	441	6 1/4	159	3 7/8	79	12.8	5.8
U009M2QT	1 1/4	24 1/2	622	8 1/2	216	4	100	26.5	12.0
U009M2QT	1 1/2	25 1/2	648	8 1/2	216	4 1/4	108	28.8	13.0
U009M2QT	2	27 3/8	695	8 3/4	222	4 1/4	108	32.8	14.9



### U009AQT

MODEL	SIZE	DIMENSIONS										WEIGHT	
		A		C		D		D1		R		lb	kg
	in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm		
U009AQT	3/4	13 3/8	333	3 7/8	79	4 5/8	117	4 3/4	121	2 3/8	60	12.50	5.7
U009M2AQT	1	13 3/8	333	3 7/8	79	5 1/8	130	5 5/16	132	2 3/8	60	13.88	6.3
U009M2AQT	1 1/2	15 5/8	390	4 1/4	108	7 3/4	197	7 3/4	197	3 1/4	83	39.25	17.8
U009M2AQT	2	19 1/4	489	4 1/4	108	8 3/8	213	8 3/8	213	3 1/4	83	39.25	17.8

# Capacity

Performance as established by an independent testing laboratory.

The asterisk (\*) indicates the typical maximum system flow rate (7.5 ft/s, 2.3 m/s).

