

## Engineering Specification

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series 909RPDA-FS

## Reduced Pressure Detector Assemblies

Sizes: 2½" – 10"

Series 909RPDA-FS Reduced Pressure Detector Assemblies are used in health hazard applications and are designed exclusively for use in accordance with water utility authority containment requirements. It is mandatory to prevent the reverse flow of fire protection system substances, i.e., glycerin wetting agents, stagnant water and water of non-potable quality from being pumped or siphoned into the potable water line.

With an upgrade of the SentryPlus™ Alert technology, Series 909RPDA-FS contains an integrated flood sensor to detect excessive water discharges from the relief valve. When activated through an add-on sensor connection kit, the flood sensor relays a signal that triggers notification to qualified service personnel who can take corrective action, thus avoiding the possibility of ruinous flooding and costly damage. The add-on sensor connection kit is available for both third-party building management systems, or BMS, and cellular communications. (For more information, refer to *RP-IS-909-909RPDA-FS*.)

Modular check design concept facilitates maintenance and assembly access. The coating on this backflow assembly uses ArmorTek™ technology to resist corrosion due to microbial induced corrosion (MIC) or exposed metal substrate. All sizes are standardly equipped with AWWA epoxy coated, UL/FM listed OSY resilient seated gate valves, CFM (cubic feet per minute) or GPM (gallon per minute) meter and ball type test cocks. A pressure differential relief valve is located in a zone between the check valves.

### Modular Design

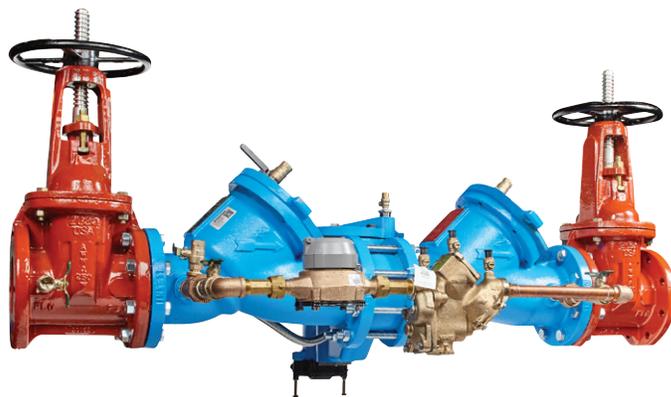
Features a modular design concept which facilitates maintenance and assembly access. All sizes are standardly equipped with gate valves and ball type test cocks.

#### NOTICE

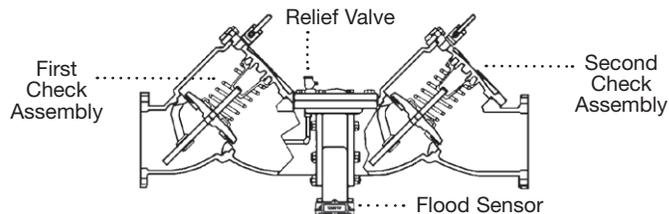
The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

#### NOTICE

Inquire with governing authorities for local installation requirements.



Series 909RPDA-FS  
Technology integrated for flood detection upon  
activation with Sensor Connection Kit



### Now Available

Add-on sensor connection kits for activation of  
the newly integrated flood sensor.

### Features

- Body construction fused epoxy coated cast iron
- Replaceable stainless steel seats
- Maximum flow at low pressure drop
- Compact for economy combined with performance
- Design simplicity for easy maintenance
- Utilizes advanced ArmorTek™ coating technology to resist corrosion of internals
- Furnished with 5/8" x 3/4" (16 x 19mm) meter
- Air-in/Water-out relief valve design provides maximum capacity during emergency conditions.
- No special tools required
- Integrated sensor for flood detection

## Specifications

A Reduced Pressure Detector Assembly shall be installed on fire protection systems when connected to a public water supply. Degree of hazard present is determined by the local authority having jurisdiction. The unit shall be a complete assembly including UL listed and FM approved OSY shutoff valves. Including an auxiliary line consisting of an approved backflow preventer and water meter. The valve body shall utilize a coating system with built in electrochemical corrosion inhibitor and microbial inhibitor. The assembly shall meet the requirements of AWWA C511-92; ASSE 1047; UL Classified File No. EX3185; CSA B64 and USC Manual 8th. Edition. Assembly shall be a Watts Series 909RPDA-FS.

## Models

### Suffix:

OSY – UL/FM outside stem and yoke resilient seated gate valves

CFM – cubic feet per minute meter

GPM – gallons per minute meter

LF – less shutoff valves

## Materials

Discs: Rubber

Body: Epoxy coated cast iron

Seat and Disc Holder: Stainless steel

Trim: Stainless steel

Test Cocks: Bronze

## Pressure – Temperature

Temperature Range: 33°F – 140°F (0.5°C – 60°C) continuous

Maximum Working Pressure: 175psi (12.1 bar)

## Standards

AWWA C511-92; CSA B64

USC Manual for Cross-connection Control, 8th Edition

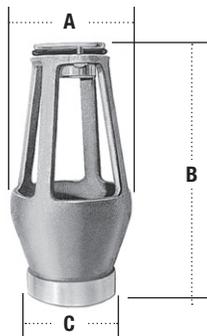
## Approvals



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

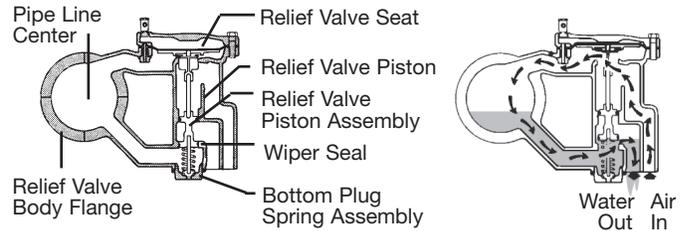
## Series 909AG AIR GAPS

When installing a drain line, use Series 909 air gaps on Model 909 backflow preventers.

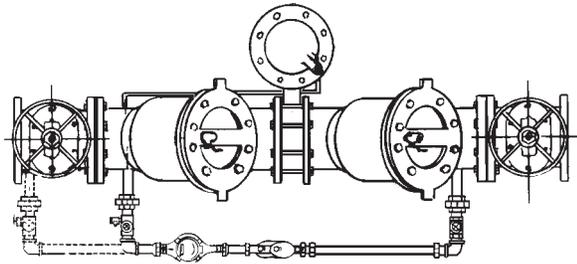


## How it operates

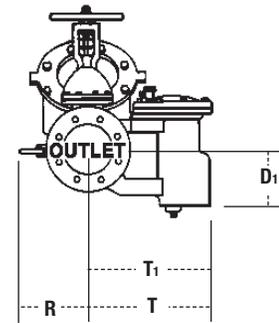
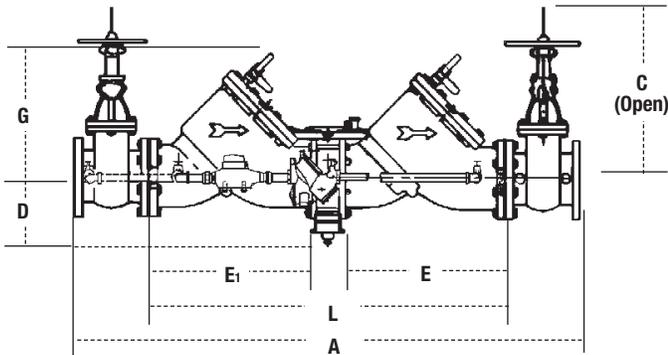
The unique relief valve construction incorporates two channels: one for air, one for water. When the relief valve opens, as in the accompanying air-in/water-out diagram, the right-hand channel admits air to the top of the reduced pressure zone, relieving the zone vacuum. The channel on the left then drains the zone to atmosphere. Therefore, if both check valves foul, and simultaneous negative supply and positive backpressure develops, the relief valve uses the air-in/water-out principle to stop potential backflow.



## Dimensions – Weights



**NOTE:** Piping for 3" 909 will start from #1 gate valve and connect at #2 check valve.

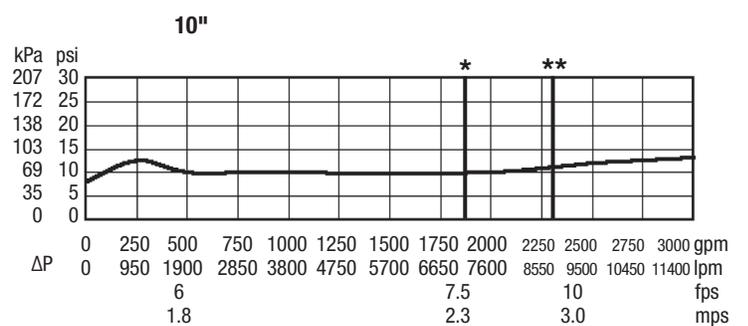
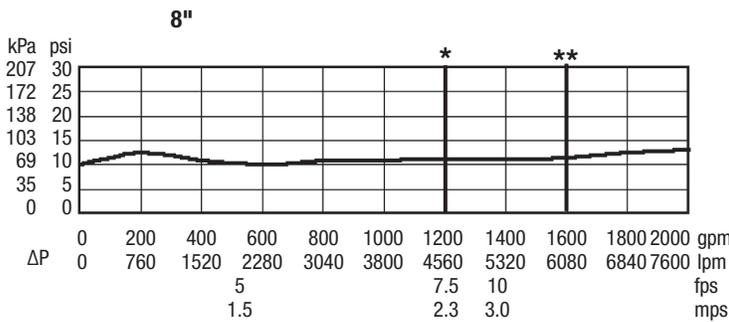
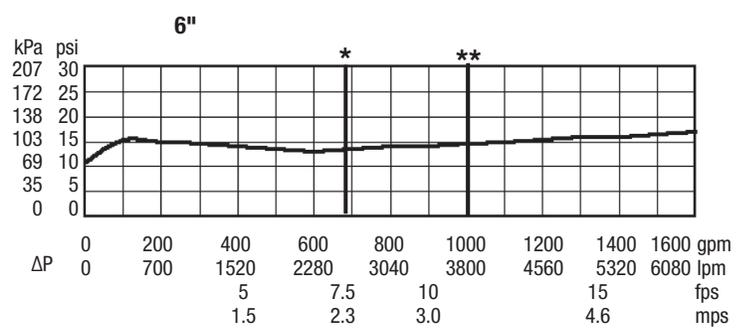
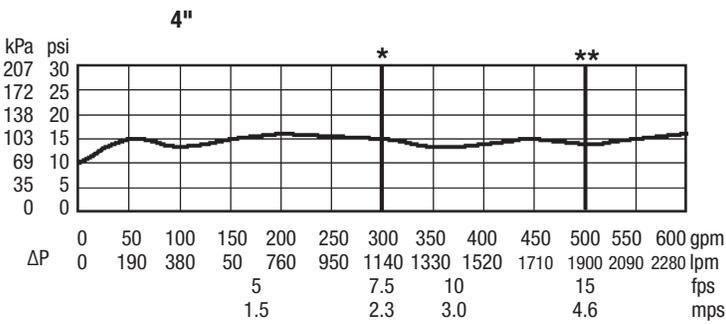
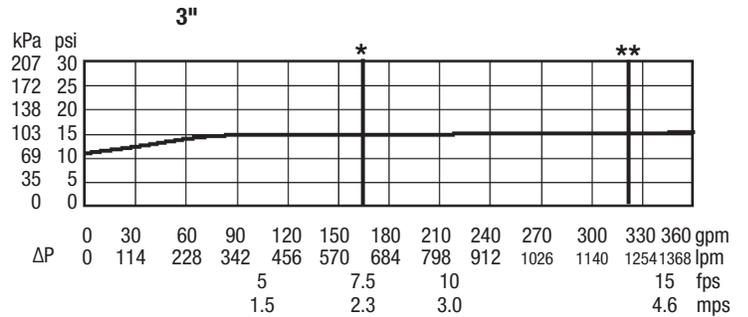
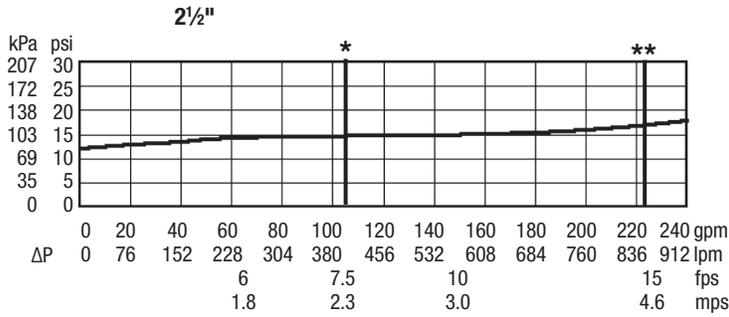


Iron Body Model	Ordering Code	Series/Sizes	Dimensions			Weight				
			A in. mm	B in. mm	C in. mm	lb	kg			
909AG-F	0881378	1¼" – 3" 009/909								
		1¼" – 2" 009 M1	4¾"	111	6¾"	171	2	51	3.25	1.47
		2" 009 M2								
909AG-K	0881385	4" – 6" 909 8" – 10" 909 M1	6¾"	162	9½"	244	3	76	6.25	2.83
909AG-M	0881387	8" – 10" 909	7¾"	187	11¼"	286	4	102	15.50	7.03

SIZE		DIMENSIONS												WEIGHT								
	A	C	D	D1	E, E1	G	L	R	T	T1												
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb	kg				
2½	41¼	1070	16¾	416	5¼	133	4¼	114	12	305	7	178	26½	664	14	356	9	229	7½	194	230	104
3	42¼	1070	18¾	479	5¼	133	4¼	114	12	305	7	178	26½	664	14	356	9	229	7½	194	230	104
4	55½	1400	22¾	578	6	152	5½	149	17	432	9½	241	37	940	15	381	13½	346	11¾	299	470	213
6	65½	1664	30¾	765	6	152	6	152	20¾	527	14½	368	45	1130	16	406	13½	346	11¾	299	798	362
8	78½	1994	37¾	959	9¾	248	8½	219	26	660	18½	470	55¼	1403	17	432	18½	470	16¾	416	1456	660
10	93¾	2378	45¾	1162	9¾	248	8½	219	32	813	21½	546	67½	1715	18	457	18½	470	16¾	416	2230	1012

# Capacity

\*Typical maximum flow rate (7.5 feet/sec.) \*\*UL rated flow



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