

## Engineering Specification

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

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

# LEAD FREE\*

## Series 4000SS Reduced Pressure Zone Assembly

2½" – 10"

Series 4000SS provides protection of the potable water supply in accordance with national codes. This series can be used where approved by the local authority having jurisdiction on health-hazard cross-connections. Series 4000SS features short lay length, light-weight stainless steel body, corrosive resistant stainless steel relief valve, and patented cam-check assembly.

Series 4000SS 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 for corrective action, thus limiting flooding and costly damage.

### NOTICE

An add-on connection kit is required to activate the flood sensor. Without the connection kit, the flood sensor is a passive component that has no communication with any other device. (For more information, download RP/IS-A-4000SS/5000SS, sizes 2½" to 6", or RP/IS-A-4000SS, sizes 8" to 12".)

### Features

- Stainless steel construction provides long-term corrosion resistance and maximum strength
- Stainless steel body is half the weight of competitive designs reducing installation and shipping costs
- Short end-to-end dimensions make retrofitting easy
- Cam-check assembly provides maximum flow at low pressure drop
- No special tools required for servicing
- Compact construction allows for smaller enclosures
- Stainless steel relief valve features a balanced rolling diaphragm to eliminate sliding seals and lower maintenance costs
- Sensor on relief valve for flood detection
- Flood alert feature activated with add-on sensor connection kit, compatible with BMS and cellular network communication.

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

Ames Fire & Waterworks product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Ames Fire & Waterworks Technical Service. Ames Fire & Waterworks 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 Ames Fire & Waterworks products previously or subsequently sold.



4000SS-OSY with Flood Sensor

### NOTICE

Use of the integrated flood sensor does not replicate 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 or power issues.

### 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.



## Specification

A Reduced Pressure Zone assembly shall be installed at each cross-connection to prevent backsiphonage and backpressure of hazardous materials into the potable water supply. Series 4000SS features Lead Free\* construction to comply with Lead Free\* installation requirements. The assembly shall consist of a pressure differential relief valve located in a zone between two positive seating cam-check assemblies. The main valve body shall be manufactured from 300 Series stainless steel for corrosion resistance. The cam-check assembly shall be of thermoplastic construction with stainless steel hinge pins, cam arm, and cam bearing. The cam-check assembly shall utilize a single torsion spring design to minimize pressure drop through the assembly. The cam-check assembly shall be modular and shall seal to the main valve body by the use of an O-ring. There shall be no brass or bronze parts used within the check assembly or relief valve. The use of seat screws to retain the check valve seat is prohibited. All internal parts shall be accessible through a single cover on the valve assembly securely held in place by a two-bolt grooved coupling. The differential relief valve shall be of stainless steel construction and shall utilize a rolling diaphragm and no sliding seals. The relief valve shall be bottom mounted and supplied with a steel reinforced sensing hose. The assembly shall include two resilient seated shutoff valves and four ball type test cocks. The assembly shall be an Ames Fire & Waterworks Series 4000SS, and shall include a sensor on the relief valve for flood detection.

## Materials

All internal metal parts: 300 Series stainless steel

Main valve body: 300 Series stainless steel

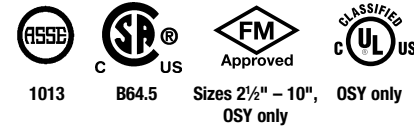
Check assembly: Noryl®

Flange dimension in accordance with AWWA Class D

## Standards

AWWA C511-92

## Approvals



## Model/Option

- FS – Sensor on the relief valve for flood detection
- NRS – Non-rising stem resilient seated gate valves
- OSY – UL Classified and FM Approved outside stem and yoke resilient seated gate valves
- OSY FxG\*\* – Flanged inlet gate connection and grooved outlet gate connection
- OSY GxG\*\* – Grooved inlet gate connection and flanged outlet gate connection
- OSY GxG\*\* – Grooved inlet gate connection and grooved outlet gate connection
- LG – Less gates

## NOTICE

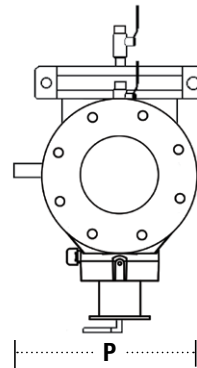
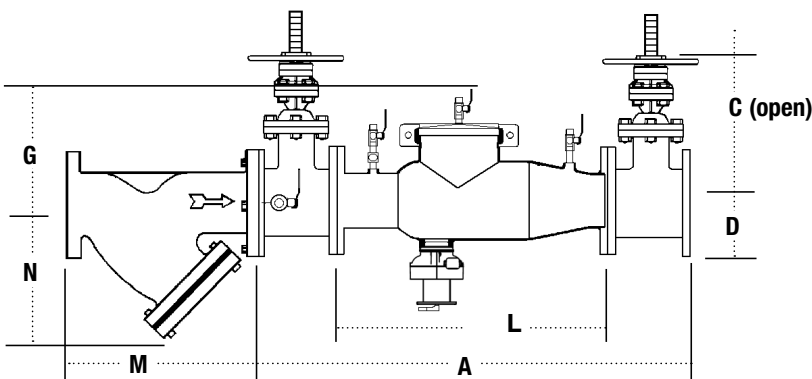
When installing a drain line on the Series 4000SS backflow preventer, use an air gap. Download ES-A-AG/EL/TC for additional information.

## Pressure – Temperature

Temperature Range: 33°F – 110°F (0.5°C – 43°C)

Maximum Working Pressure: 175 psi (12.1 bar)

## Dimensions – Weights



Note: Strainer sold separately

SIZE	DIMENSIONS						WEIGHT															
	A		C (OSY)		C (NRS)		D		G		L		M		N		P		w/Gates		w/o Gates	
	<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>in.</i>	<i>mm</i>	<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>lb</i>	<i>kg</i>	<i>lb</i>	<i>kg</i>
2½	37	940	16¾	416	9¾	238	10½	267	10	254	22	559	10	254	6½	165	7	178	148	67	60	27
3	38	965	18⅞	479	10¼	260	10½	267	10	254	22	559	10⅞	257	7	178	7½	191	226	103	62	28
4	40	1016	22¾	578	12¾ <sub>16</sub>	310	10½	267	10	250	22	559	12⅞	308	8¼	210	9	229	235	107	65	30
6	48½	1232	30⅞	765	16	406	11½	292	15	381	27½	699	18½	470	13½	343	11	279	380	172	110	50
8	52½	1334	37¾	959	19 <sup>15</sup> / <sub>16</sub>	506	12½	318	15	381	29½	749	21⅝	549	15½	394	13½	343	571	259	179	81
10	55¾	1416	45¾	1162	23 <sup>13</sup> / <sub>16</sub>	605	12½	318	15	381	29½	749	26	660	18½	470	16	406	773	351	189	86

Noryl® is a registered trademark of SHPP Global Technologies B.V.

\*\*Options for the gate valve:

- Consult factory for dimensions.
- Available with grooved NRS gate valves; consult factory.
- Post indicator plate and operating nut available; consult factory.

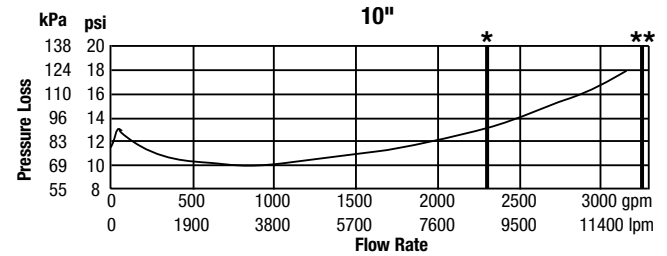
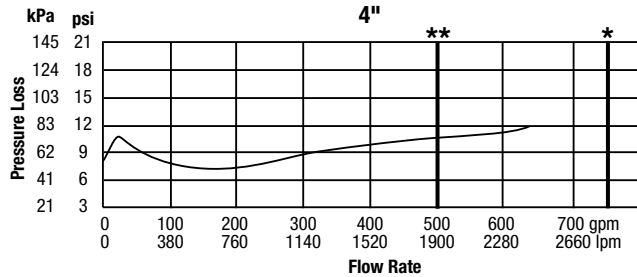
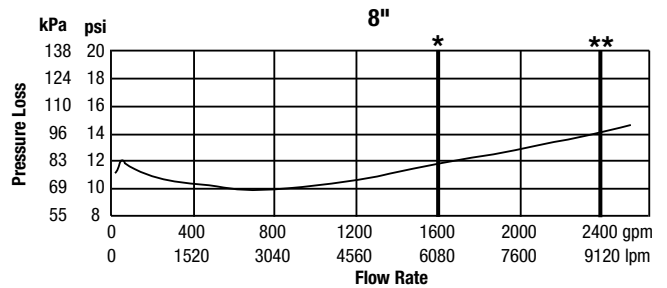
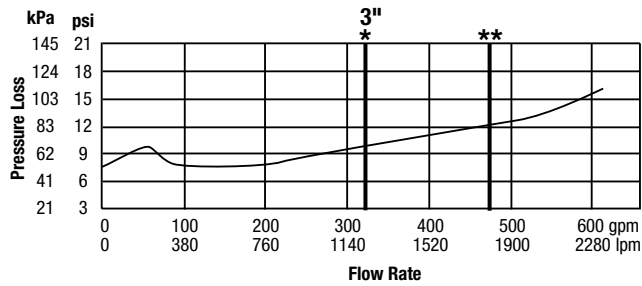
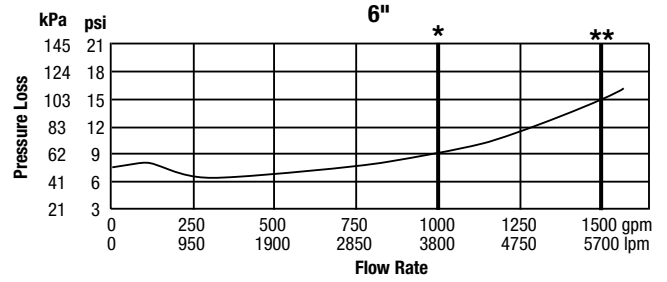
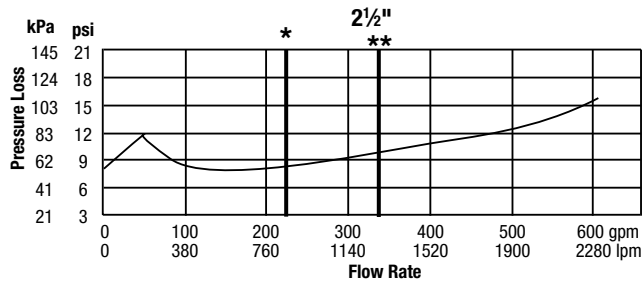
## Capacity

Series 4000SS performance as established by an independent testing laboratory (1996 UL). UL certified flow characteristics.

Documented flow characteristics (including shutoff valves).

\*UL Rated

\*\*UL Tested



**A WATTS Brand**

**USA: Backflow** Tel: (978) 689-6066 • Fax: (978) 975-8350 • [AmesFireWater.com](http://AmesFireWater.com)  
**USA: Control Valves** Tel: (713) 943-0688 • Fax: (713) 944-9445 • [AmesFireWater.com](http://AmesFireWater.com)  
**Canada:** Tel: (888) 208-8927 • Fax: (905) 481-2316 • [AmesFireWater.ca](http://AmesFireWater.ca)  
**Latin America:** Tel: (52) 55-4122-0138 • [AmesFireWater.com](http://AmesFireWater.com)