

**For Health Hazard Applications**

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

Contractor \_\_\_\_\_

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

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series 957RPDA, 957NRPDA, 957ZRPDA

## Reduced Pressure Detector Assemblies

**Sizes: 2½" – 10" (65 – 250 mm)**

Series 957RPDA, 957NRPDA, 957ZRPDA Reduced Pressure Detector Assemblies provide protection to the potable water system from contamination in accordance with national plumbing codes. The 957RPDA, 957NRPDA, 957ZRPDA are normally used in health hazard applications to protect against back-siphonage and backpressure. The Watts 957RPDA, 957NRPDA, 957ZRPDA are used to monitor unauthorized use of water from the fire protection system.

### Features

- Extremely compact design
- 70% lighter than traditional designs
- 304 (Schedule 40) stainless steel housing & sleeve
- Groove fittings allow integral pipeline adjustment
- Patented torsion spring check provides lowest pressure loss
- Unmatched ease of serviceability
- Replaceable check disc rubber
- Available with grooved butterfly valve shutoffs
- Bottom mounted cast stainless steel relief valve
- Metered bypass to detect leakage or theft of water from the fire sprinkler system

### **▲ WARNING**

It is illegal to use this product in any plumbing system providing water for human consumption, such as drinking or dishwashing, in the United States. Before installing standard material product, consult your local water authority, building and plumbing codes.



**957NRPDAOSY**

### Specifications

The Reduced Pressure Detector Assembly shall consist of two independent torsion spring check modules, a differential pressure relief valve located between and below the two modules, two drip tight shutoff valves, and required torsion spring check modules and relief valve shall be contained within a sleeve accessible single housing constructed from 304 (Sch 40) stainless steel pipe with groove end connections. Torsion spring checks shall have reversible elastomer discs and in operation produce drip tight closure against reverse flow caused by backpressure or backsiphonage. The bypass line shall include a meter, small diameter reduced pressure zone assembly and isolation valves. Assembly shall be Watts Series 957RPDA, 957NRPDA, 957ZRPDA.

### **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.

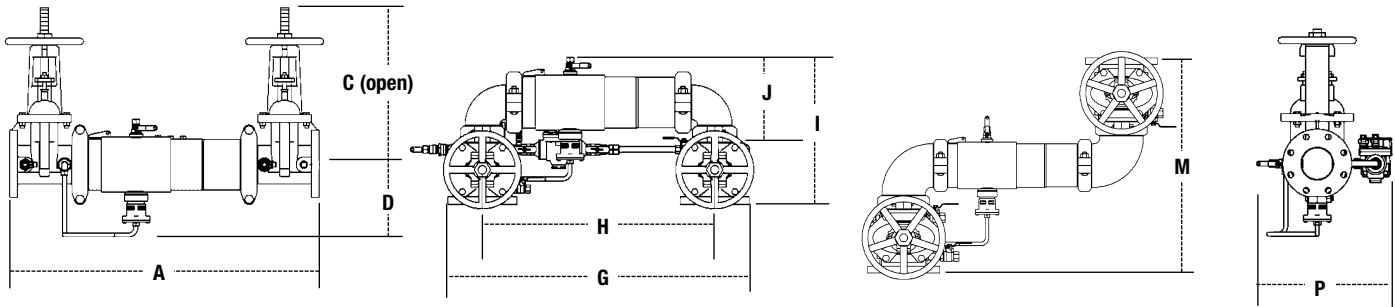
## Available Models

Suffix:

- OSY – UL/FM outside stem and yoke, resilient seated gate valves
- BFG – UL/FM grooved gear operated butterfly valves with tamper switch
- \*OSY FxG – Flanged inlet gate connection and grooved outlet gate connection
- \*OSY GxF – Grooved inlet gate connection and flanged outlet gate connection
- \*OSY GxG – Grooved inlet gate connection and grooved outlet gate connection

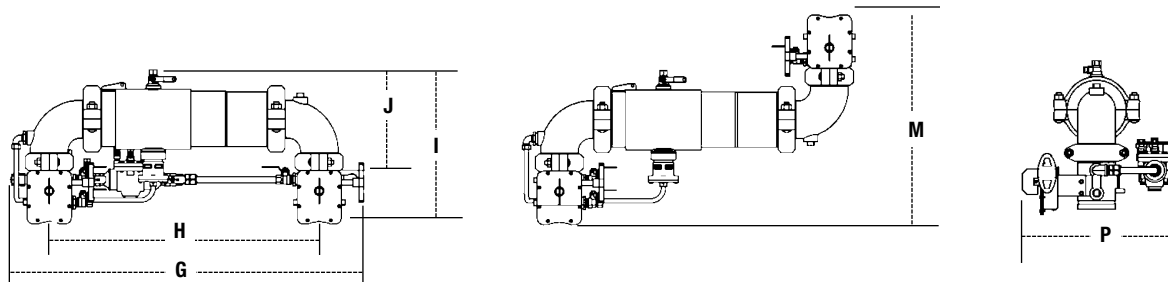
Available with grooved NRS gate valves - consult factory\*  
 Post indicator plate and operating nut available - consult factory\*  
 \*Consult factory for dimensions

## Dimensions – Weight



### 957RPDA, 957NRPDA, 957ZRPDA

SIZE (DN)		DIMENSIONS										WEIGHT											
in.	mm	A		C (OSY)		D		G		H		I		J		M		P		957RPDA	957NRPDA		
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.
2½	65	30¾	781	16¾	416	6½	165	29¼	738	21½	546	15½	393	8¼	223	21¼	540	13¾	335	142	64	150	68
3	80	31¾	806	18⅞	479	6¼	170	30¼	768	22¼	565	17⅞	435	9¾	233	23	584	14½	368	162	73	175	79
4	100	33¾	857	22¼	578	7	178	33	838	23½	597	18½	470	9¼	252	26¼	667	15¾	386	178	81	201	91
6	150	43½	1105	30⅞	765	8½	216	44¾	1137	33¼	845	23¾	589	13¼	332	32¼	819	19	483	312	142	353	160
8	200	49¾	1264	37¾	959	9¼	246	54⅞	1375	40⅞	1019	27¼	697	15¼	399	36⅞	937	21¾	538	497	225	572	259
10	250	57¾	1467	45¾	1162	11¼	285	66	1676	49½	1257	32½	826	17¼	440	44½	1124	24	610	797	362	964	437



### 957NRPDABFG, 957ZRPDABFG

SIZE (DN)		DIMENSIONS										WEIGHT			
in.	mm	G		H		I		J		M		P		957NRPDABFG	957ZRPDABFG
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
2½	65	32½	826	23	584	15½	394	9½	241	19¾	502	15¾	402	81	37
3	80	34	864	24	610	16¼	414	10¼	256	21¼	540	16⅞	410	84	38
4	100	35⅞	905	25½	648	17¾	437	10¼	279	23½	597	16⅞	422	101	46
6	150	46½	1181	35¼	895	20½	521	13½	343	27¼	692	19	483	174	79

Noryl® is a registered trademark of SABIC Innovative Plastics Holding BV.

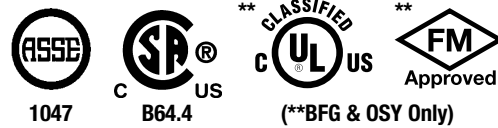
## Materials

- Housing & Sleeve: 304 (Schedule 40) Stainless Steel
- Elastomers: EPDM, Silicone and Buna 'N'
- Torsion Spring Checks: Noryl®, Stainless Steel
- Check Discs: Reversible Silicone or EPDM
- Test Cocks: Bronze Body Nickel Plated
- Pins & Fasteners: 300 Series Stainless Steel
- Springs: Stainless Steel

## Pressure – Temperature

- Temperature Range: 33°F – 140°F (0.5°C – 60°C)
- Maximum Working Pressure: 175psi (12.1 bar)

## Approvals



# Capacity

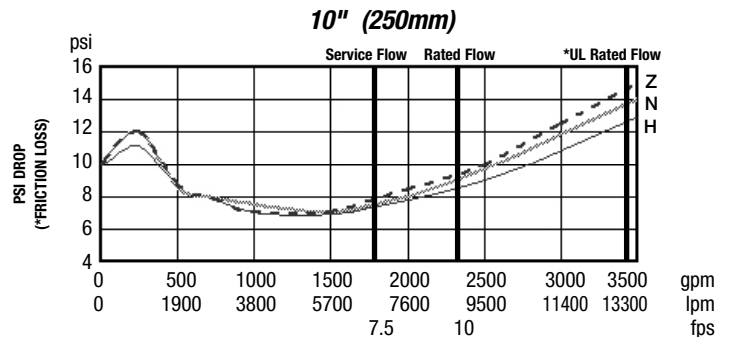
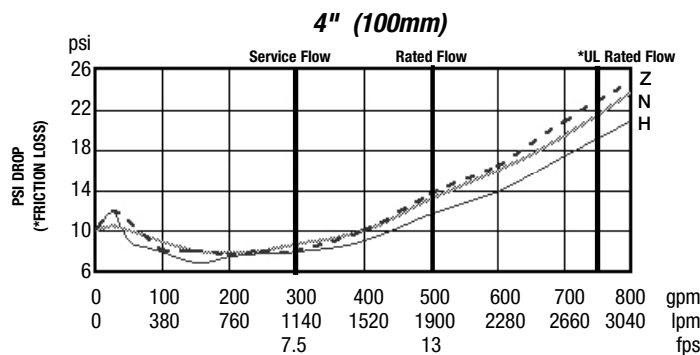
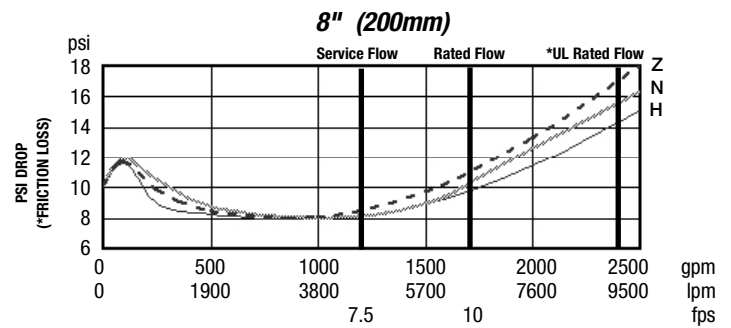
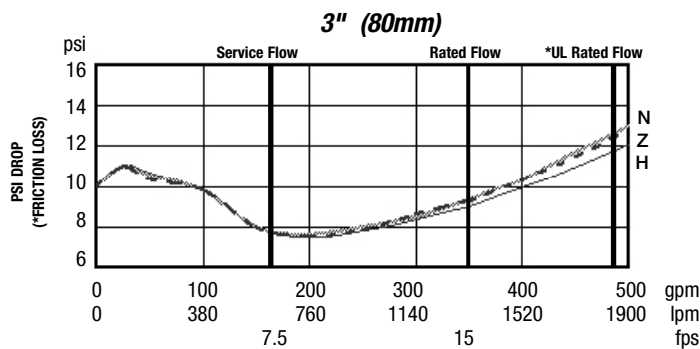
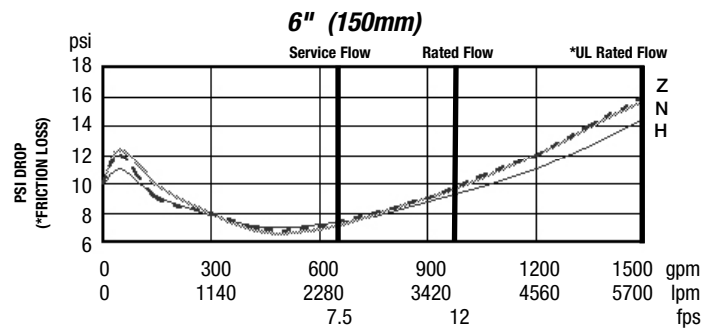
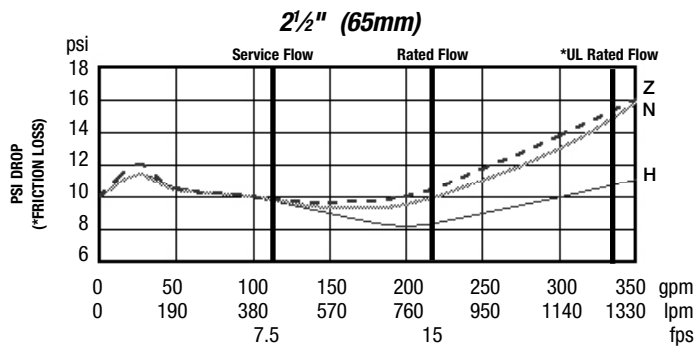
Series 957RPDA, 957NRPDA, 957ZRPDA flow curves as tested by Underwriters Laboratory.

Flow characteristics collected using butterfly shutoff valves

\_\_\_\_\_ Horizontal    \_\_\_\_\_ N-Pattern    - - - - - Z-Pattern

## Flow capacity chart identifies valve performance based upon rated water velocity up to 25fps

- Service Flow is typically determined by a rated velocity of 7.5fps based upon schedule 40 pipe.
- Rated Flow identifies maximum continuous duty performance determined by AWWA.
- UL Flow Rate is 150% of Rated Flow and is not recommended for continuous duty.
- AWWA Manual M22 [Appendix C] recommends that the maximum water velocity in services be not more than 10fps.



### NOTICE

Inquire with governing authorities for local installation requirements



*A Watts Water Technologies Company*