# For Health Hazard Applications



# 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 backsiphonage and backpressure. The Watts 957RPDA, 957NRPDA, 957ZRPDA are used to monitor unauthorized use of water from the fire protection system.



957NRPDAOSY

#### **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

# **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.

Backflow Preventer.com

Backflow Preventer.com

NWATTS

#### **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

#### 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

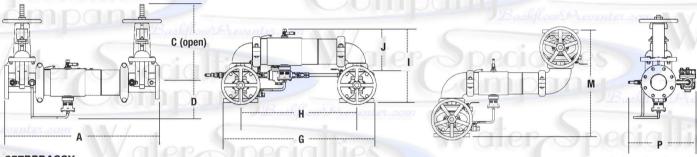
Temperature Range: 33°F – 140°F (0.5°C – 60°C) Maximum Working Pressure: 175psi (12.1 bar)

# **Approvals**



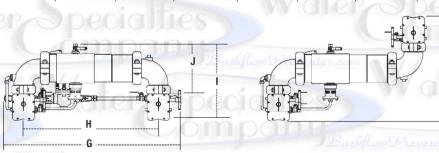


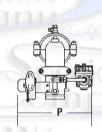




#### 957RPDAOSY

SI	ZE (DN)									DIMENSIONS WEIGHT													
_	77	A		C (OSY)		D		G		Н		7		J		M		P		957RPDA		957NRPDA	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.
21/2	65	301/2	775	163/8	416	61/2	165	291/16	738	211/2	546	151/2	393	813/16	223	21%16	548	133/16	335	142	64	150	68
3	80	31%	797	187/8	479	611/16	170	301/4	768	221/4	565	171/8	435	93/16	233	231/8	587	141/2	368	162	73	175	79
4	100	331/2	851	223/4	578	7	178	33	838	231/2	597	181/2	470	915/16	252	261/2	673	153/16	386	178	81	201	91
6	150	44	1118	301/8	765	81/2	216	443/4	1137	33¾	857	233/16	589	131/16	332	323/4	832	19	483	312	142	353	160
8	200	50	1270	373/4	959	911/16	246	541/8	1375	405/8	1032	277/16	697	1511/16	399	371/8	943	213/16	538	497	225	572	259
10	250	561/2	1435	453/4	1162	113/16	285	66	1676	50	1270	321/2	826	175/16	440	463/8	1178	24	610	797	362	964	437





#### 957RPDABFG

SIZE	(DN)	i all					DIMEN	ISIONS	WEIGHT						
G	DEC	TOTHIES		1		J		M		P		957RPDABFG			
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
21/2	65	321/2	826	211/2	546	151/2	394	91/2	241	2113/16	555	1513/16	402	81	37
3	80	34	864	221/4	565	165/16	414	101/16	256	231/8	587	161/8	410	84	38
4	100	355/8	905	231/2	597	173/16	437	1015/16	279	2415/16	634	165/8	422	101	46
6	150	461/2	1181	33¾	857	201/2	521	131/2	343	281/4	718	19	483	174	79

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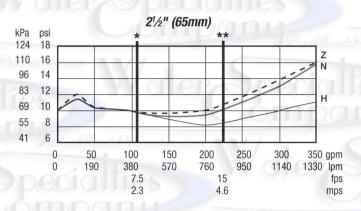
# Capacity

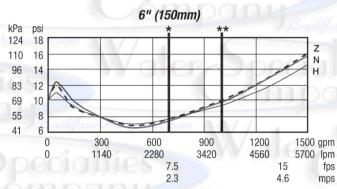
Series 957RPDA, 957NRPDA, 957ZRPDA flow curves as tested by Underwriters Laboratory per UL 1469, 1996 Flow characteristics collected using butterfly shutoff valves

#### \* = Rated flow \*\* = UL Rated flow

--- Horizontal

N-Pattern ---- Z-Pattern





#### 3" (80mm) kPa psi 110 16 96 14 Z 12 83 69 10 55 8 41 6 100 200 300 400 500 gpm 380 760 1140 1520 0 1900 lpm 15 7.5 fps 4.6 mps

