

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

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

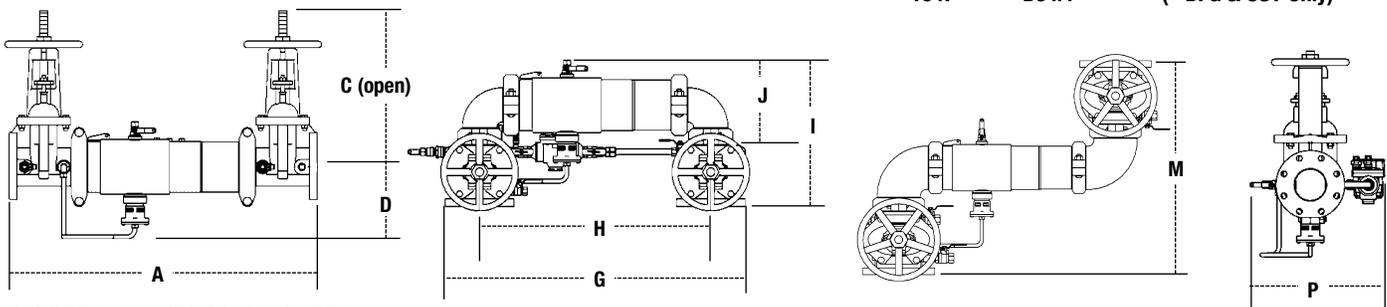
Temperature Range: 33°F – 140°F (0.5°C – 60°C)

Maximum Working Pressure: 175psi (12.1 bar)

Approvals

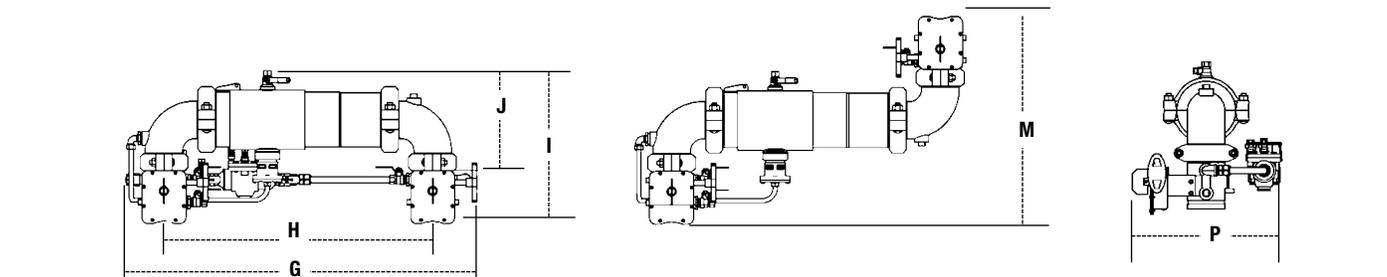
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC)
(Excluding 'N' Pattern – 10" 'Z', Pattern – 6" and 10")
- AWWA C551-92

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 | 29⅞ | 738 | 21½ | 546 | 15½ | 393 | 8⅜ | 223 | 21¼ | 540 | 13¾ | 335 | 142 | 64 | 150 | 68 |
| 3 | 80 | 31¾ | 806 | 18⅞ | 479 | 6⅞ | 170 | 30¼ | 768 | 22¼ | 565 | 17⅞ | 435 | 9⅞ | 233 | 23 | 584 | 14½ | 368 | 162 | 73 | 175 | 79 |
| 4 | 100 | 33¾ | 857 | 22¼ | 578 | 7 | 178 | 33 | 838 | 23½ | 597 | 18½ | 470 | 9⅞ | 252 | 26¼ | 667 | 15¾ | 386 | 178 | 81 | 201 | 91 |
| 6 | 150 | 43½ | 1105 | 30⅞ | 765 | 8½ | 216 | 44¾ | 1137 | 33¼ | 845 | 23¾ | 589 | 13⅞ | 332 | 32¼ | 819 | 19 | 483 | 312 | 142 | 353 | 160 |
| 8 | 200 | 49¾ | 1264 | 37¾ | 959 | 9⅞ | 246 | 54⅞ | 1375 | 40⅞ | 1019 | 27⅞ | 697 | 15⅞ | 399 | 36⅞ | 937 | 21¾ | 538 | 497 | 225 | 572 | 259 |
| 10 | 250 | 57¾ | 1467 | 45¾ | 1162 | 11⅞ | 285 | 66 | 1676 | 49½ | 1257 | 32½ | 826 | 17⅞ | 440 | 44½ | 1124 | 24 | 610 | 797 | 362 | 964 | 437 |



957NRPDABFG, 957ZRPDABFG

| SIZE (DN) | | DIMENSIONS | | | | | | | | WEIGHT | | | | | |
|-----------|-----|------------|------|-----|-----|-----|-----|-----|-----|--------|-----|-----|-----|------------|------|
| in. | mm | G | | H | | I | | J | | M | | P | | 957RPDABFG | |
| | | 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 | 15⅞ | 402 | 81 | 37 |
| 3 | 80 | 34 | 864 | 24 | 610 | 16⅞ | 414 | 10⅞ | 256 | 21¼ | 540 | 16⅞ | 410 | 84 | 38 |
| 4 | 100 | 35⅞ | 905 | 25½ | 648 | 17⅞ | 437 | 10⅞ | 279 | 23½ | 597 | 16⅞ | 422 | 101 | 46 |
| 6 | 150 | 46½ | 1181 | 35¼ | 895 | 20½ | 521 | 13½ | 343 | 27¼ | 692 | 19 | 483 | 174 | 79 |

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Capacity

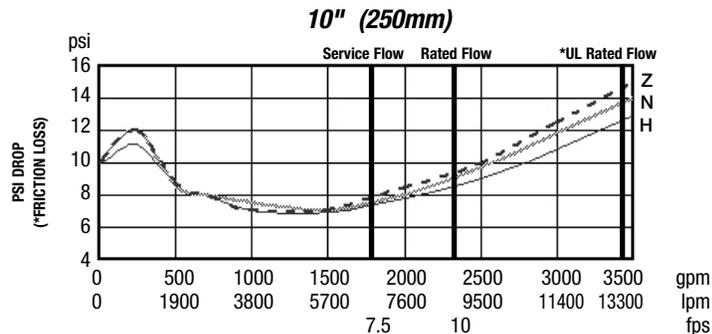
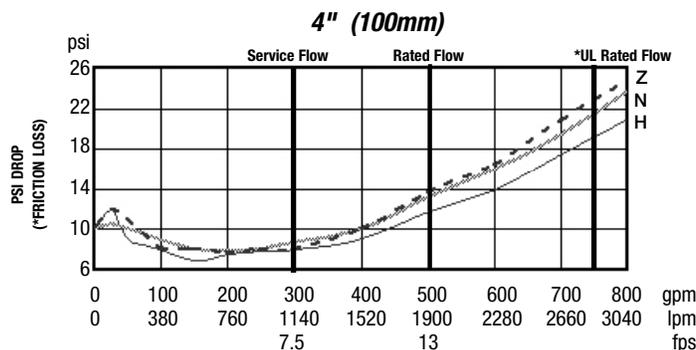
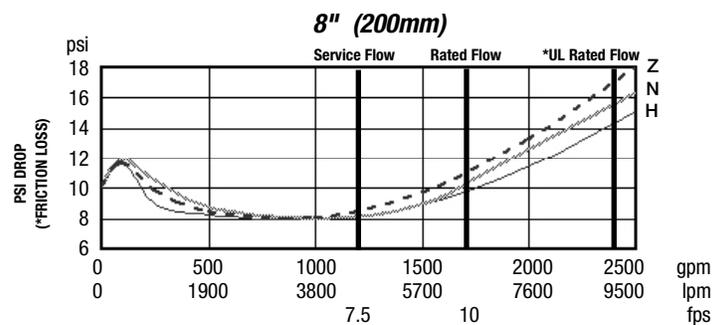
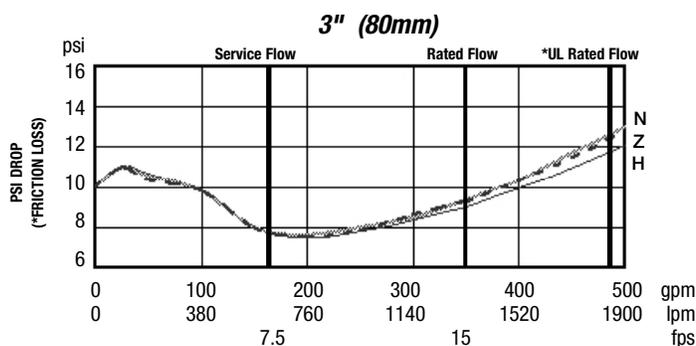
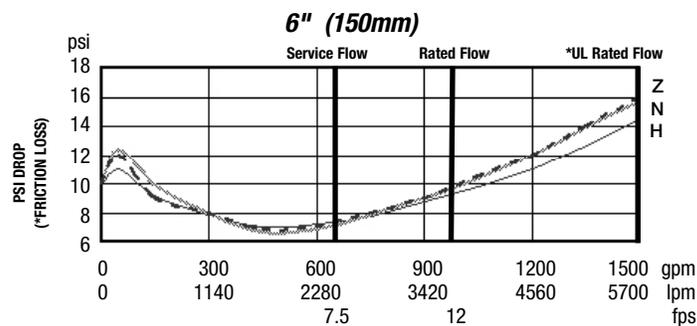
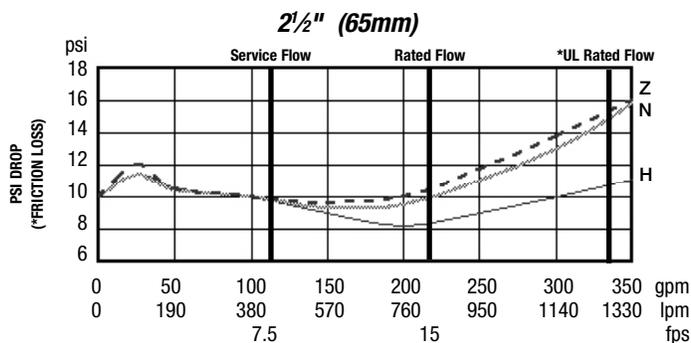
Series 957RPDA, 957NRPDA, 957ZRPDA flow curves as tested by Underwriters Laboratory.

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



USA: Tel: (978) 689-6066 • Fax: (978) 975-8350 • Watts.com
Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • Watts.ca
Latin America: Tel: (52) 81-1001-8600 • Watts.com