

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Colt™ Series LFC500-FS Reduced Pressure Detector Assemblies

2½" – 10"

Colt Series LFC500-FS Reduced Pressure Detector Assemblies provide protection to the potable water system from contamination in accordance with national plumbing codes. The series is normally used in health-hazard applications to protect against backsiphonage, backpressure, and the fouling of either check valve. Series LFC500-FS is used to monitor unauthorized use of water from the fire protection system and features Lead Free* construction to comply with Lead Free* installation requirements.

The series include an integrated flood sensor to detect excessive water discharges from the relief valve. The flood sensor relays a signal that triggers a multichannel alert (call, email, text) to notify personnel about potential flooding.

NOTICE

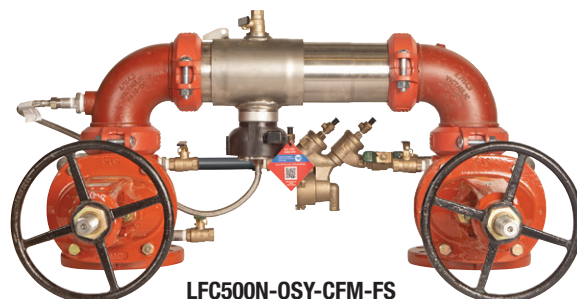
An add-on connection kit is required to activate the integrated flood sensor. Without the connection kit, the flood sensor is a passive component and will not communicate with any other device. (A retrofit sensor connection kit is also available for existing installations. For more information, download RP/IS-A-C400/C500-FS.)

Features

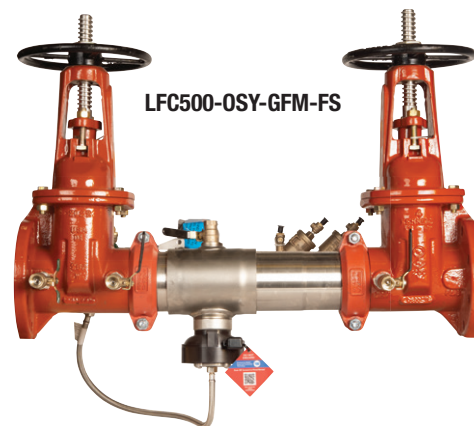
- Extremely compact design
- 70% lighter than traditional designs
- Type 304 (Schedule 40) stainless steel housing and sleeve
- Groove fittings for integral pipeline adjustment
- Patented link check for lowest pressure loss
- Unmatched ease of serviceability
- Replaceable check disc rubber
- Available 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
- Integrated sensor for flood detection
- Flood alert feature activated by add-on sensor connection kit

*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.



LFC500N-OSY-CFM-FS



LFC500-OSY-GFM-FS

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.

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.

AMES
FIRE & WATERWORKS
A WATTS Brand

Specification

Colt Series LFC500 Reduced Pressure Detector Assemblies shall consist of two independent Link Check modules, a differential pressure relief valve located between and below the two modules, two drip tight shutoff valves, and required test cocks. Link Check modules and relief valve shall be contained within a sleeve accessible single housing constructed from Type 304 (Schedule 40) stainless steel pipe with groove end connections. Link Checks shall have reversible elastomer discs and in operation produce drip tight closure against the reverse flow of liquid caused by backpressure or backsiphonage. The bypass assembly consists of a meter registering either gallon or cubic measurements, a reduced pressure zone assembly, and required test cocks. Assembly shall be Colt LFC500 as manufactured by the Ames Fire & Waterworks, and shall include an integrated sensor for flood detection (-FS).

Materials

- Housing & Sleeve: Type 304 (Schedule 40) stainless steel
- Elastomers: EPDM, silicone, and Buna-N
- Link Checks: Noryl[®], stainless steel
- Check Discs: Reversible silicone or EPDM
- Test Cocks: Lead Free* bronze body
- Pins & Fasteners: 300 Series stainless steel
- Springs: Stainless steel

Configurations

- Horizontal
- "Z" pattern horizontal
- "N" pattern horizontal

Approvals

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC), OSY only excluding N and Z configurations sizes 6" – 10"
- AWWA C511-97



For additional approval information, contact the factory or visit our website at www.amesfirewater.com.

Model/Option

- FS – Integrated sensor for flood detection
- OSY – UL Classified and FM Approved outside stem and yoke resilient seated gate valves
- BFG – UL Classified and FM Approved grooved gear operated butterfly valves w/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

Pressure – Temperature

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

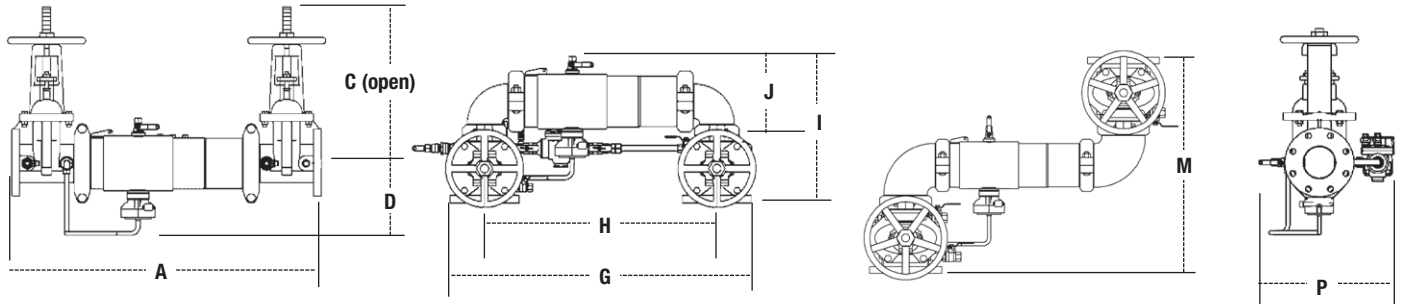
Maximum Working Pressure: 175 psi (12.1 bar)

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

**Options for the gate valve:

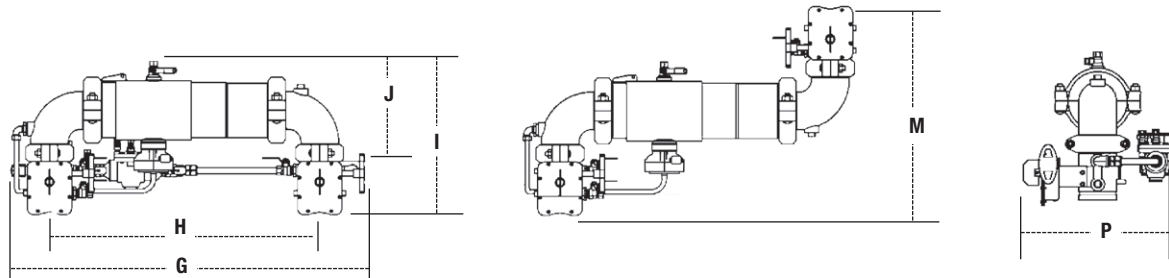
- Consult factory for dimensions.
- Available with grooved NRS gate valves; consult factory.
- Post indicator plate and operating nut available; consult factory.

Dimensions — Weights



LFC500, LFC500N, LFC500Z

| SIZE | DIMENSIONS | | | | | | | | | | | | | | WEIGHT | | | | | | | |
|------|------------|------|---------|------|-----|-----|-----|------|-----|------|-----|-----|-----|-----|--------|------|-----|-----|------|-----|-------|-----|
| | A | | C (OSY) | | D | | G | | H | | I | | J | | M | | P | | C500 | | C500N | |
| in. | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | lb | kg | lb | kg |
| 2½ | 30¾ | 781 | 16⅝ | 416 | 6½ | 165 | 29¼ | 738 | 21½ | 546 | 15½ | 393 | 8⅜ | 223 | 21¼ | 540 | 13⅜ | 335 | 142 | 64 | 150 | 68 |
| 3 | 31¾ | 806 | 18⅝ | 479 | 6⅞ | 170 | 30¼ | 768 | 22¼ | 565 | 17⅝ | 435 | 9⅞ | 233 | 23 | 584 | 14½ | 368 | 162 | 73 | 175 | 79 |
| 4 | 33¾ | 857 | 22¼ | 578 | 7 | 178 | 33 | 838 | 23½ | 597 | 18½ | 470 | 9⅞ | 252 | 26¼ | 667 | 15⅞ | 386 | 178 | 81 | 201 | 91 |
| 6 | 43½ | 1105 | 30⅞ | 765 | 8½ | 216 | 44¼ | 1137 | 33¼ | 845 | 23⅞ | 589 | 13⅞ | 332 | 32¼ | 819 | 19 | 483 | 312 | 142 | 353 | 160 |
| 8 | 49¾ | 1264 | 37¼ | 959 | 9⅞ | 246 | 54⅞ | 1375 | 40⅞ | 1019 | 27⅞ | 697 | 15⅞ | 399 | 36⅞ | 937 | 21⅞ | 538 | 497 | 225 | 572 | 259 |
| 10 | 57¾ | 1467 | 45¼ | 1162 | 11⅞ | 285 | 66 | 1676 | 49½ | 1257 | 32½ | 826 | 17⅞ | 440 | 44½ | 1124 | 24 | 610 | 797 | 362 | 964 | 437 |



LFC500NBF, LFC500ZBF

| SIZE | DIMENSIONS | | | | | | | | | | WEIGHT | | | |
|------|------------|------|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|---------|----|
| | G | | H | | I | | J | | M | | P | | C500BFG | |
| in. | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | lb | kg |
| 2½ | 32½ | 826 | 23 | 584 | 15½ | 394 | 9½ | 241 | 19¾ | 502 | 15⅞ | 402 | 81 | 37 |
| 3 | 34 | 864 | 24 | 610 | 16⅞ | 414 | 10⅞ | 256 | 21¼ | 540 | 16⅞ | 410 | 84 | 38 |
| 4 | 35⅞ | 905 | 25½ | 648 | 17⅞ | 437 | 10⅞ | 279 | 23½ | 597 | 16⅞ | 422 | 101 | 46 |
| 6 | 46½ | 1181 | 35¼ | 895 | 20½ | 521 | 13½ | 343 | 27¼ | 692 | 19 | 483 | 174 | 79 |

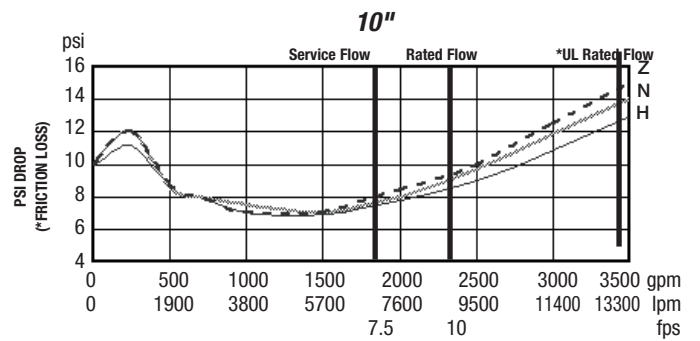
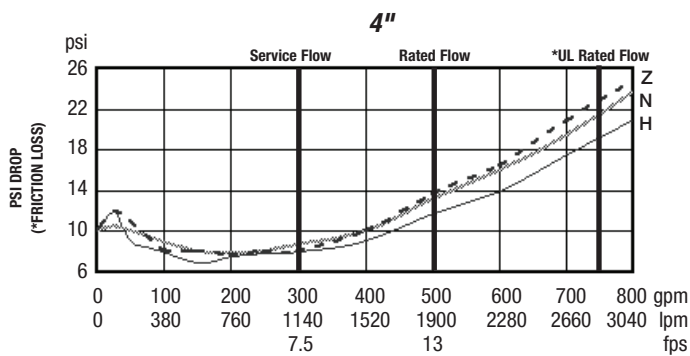
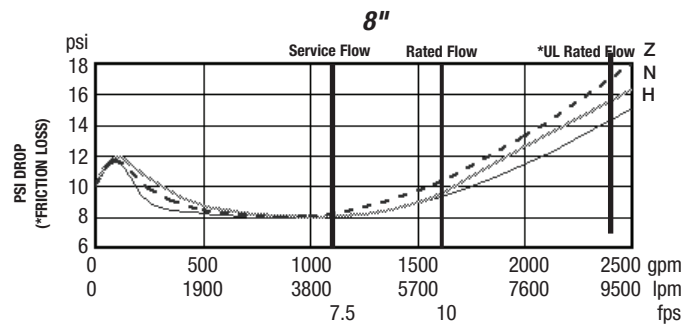
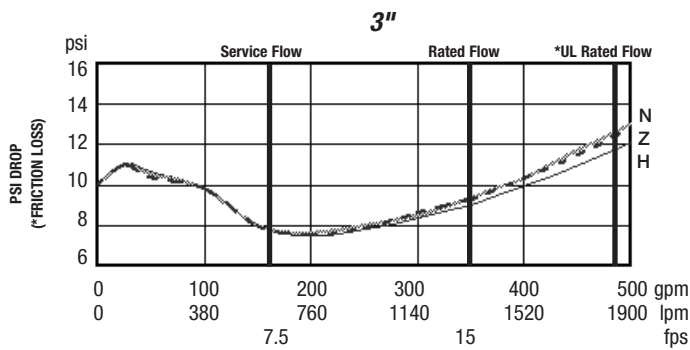
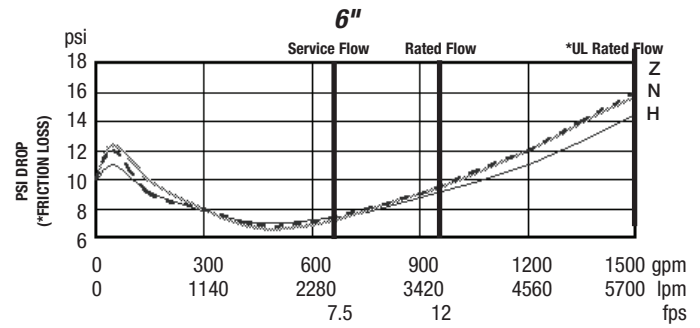
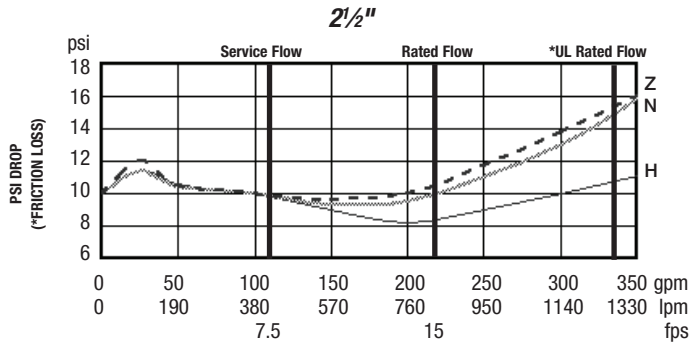
Capacity

UL Classified and FM Approved certified flow characteristics. N and Z 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 25 fps.

- Service Flow is typically determined by a rated velocity of 7.5 fps 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 10 fps.



A WATTS Brand

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