

## Engineering Specification

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

Contractor \_\_\_\_\_

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

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Colt™ Series C300, C300N

## Double Check Detector Assemblies

Sizes: 2½" – 10"

The Colt C300 and C300N Double Check Detector Assemblies are designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as irrigation, fire line, or industrial processing. Both assemblies may be installed under continuous pressure service and may be subjected to backpressure for non-toxic applications. The Colt C300 and C300N are used primarily on fire line sprinkler systems when it is necessary to monitor unauthorized use of water, and are for use in non-health hazard applications.

### Features

- Extremely compact design
- 70% Lighter than traditional designs
- 304 (Schedule 40) Stainless steel housing & sleeve
- Groove fittings allow integral pipeline adjustment
- Patented Tri-Link Check provides lowest pressure loss
- Unmatched ease of serviceability
- Available with grooved butterfly valve shutoffs
- May be used for horizontal, vertical or N pattern installations
- Replaceable check disc rubber
- Includes an integrated supervisory tamper switch on each gate valve of the OSY model

### ⚠ 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.

### 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.



C300-BFG



C300-OSY-TS

### Specification

The Colt C300, C300N Double Check Detector Assemblies shall consist of two independent Tri-Link Check modules within a single housing, sleeve access port, four test cocks, and two drip tight shutoff valves. Tri-Link Check shall be removable and serviceable, without the use of special tools. The housing shall be constructed of 304 (Schedule 40) stainless steel pipe with groove end connections. Tri-Link Checks shall have reversible elastomer discs and in operation shall produce drip tight closure against the reverse flow of liquid caused by backpressure or backsiphonage. The bypass assembly shall consist of a meter, which registers in either gallon or cubic measurement, a double check valve assembly, and required test cocks.

The integrated supervisory tamper switch on the OSY model shall have continuity with the valve fully open and activate within two (2) turns from open. The device consists of two SPDT switches and is designed to send a tamper signal when the valve is closed and when the switch is removed from the valve. In the neutral position, the switch indicates the valve is fully open. Closing the valve causes the switch rod to come out of the valve stem groove, activating the switch. Removing the tamper switch also activates the switch. Assembly shall be a Colt C300, C300N as manufactured by Ames Fire & Waterworks.

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.



## Configurations

- Horizontal
- Vertical up
- “N” pattern horizontal

## Materials

- Housing & Sleeve: 304 (Schedule 40) stainless steel
- Elastomers: EPDM, silicone, and Buna ‘N’
- Tri-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

## Available Models

### Suffix:

- OSY-TS — UL/FM outside stem and yoke resilient seated gate valves with integrated tamper switch
- BFG — UL/FM grooved gear operated butterfly valves with tamper switch
- 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

\*\* Consult factory for the following:

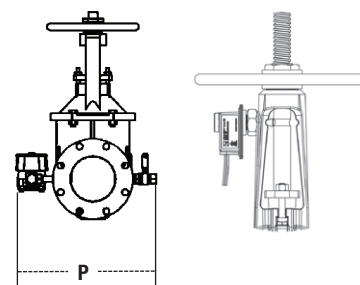
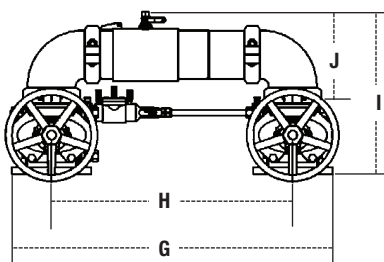
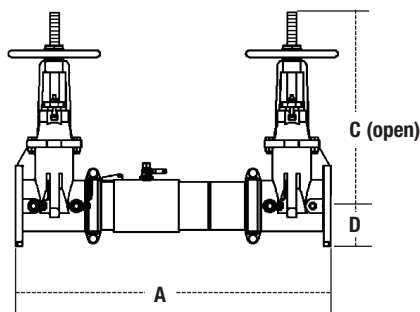
- Grooved NRS gate valves
- Post-indicator plate and operating nut
- Dimensions

## Pressure – Temperature

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

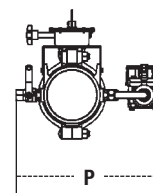
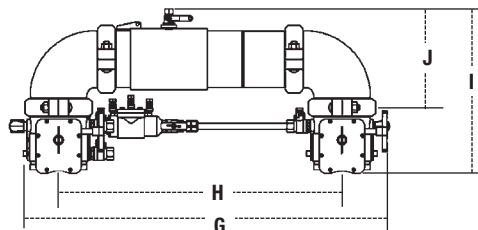
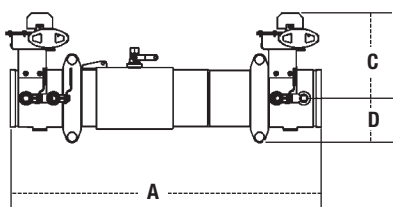
Maximum Working Pressure: 175psi (12.1 bar)

## Dimensions — Weights



### C300, C300N

| SIZE       |            | DIMENSIONS |            |           |            |           |            |           |            |           |            |           |            | WEIGHT    |            |           |           |           |           |           |
|------------|------------|------------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|
|            | A          |            | C (OSY)    |           | D          |           | G          |           | H          |           | I          |           | J          |           | P          |           | C300      |           | C300N     |           |
| <i>in.</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         | 30¾        | 781        | 16⅞        | 416       | 3½         | 89        | 29⅞        | 738       | 21½        | 546       | 15½        | 393       | 8⅜         | 223       | 13⅞        | 335       | 144       | 65        | 152       | 69        |
| 3          | 31¾        | 806        | 18⅞        | 479       | 3⅞         | 94        | 30¼        | 768       | 22¼        | 565       | 17⅞        | 435       | 9⅞         | 233       | 14½        | 368       | 164       | 74        | 177       | 80        |
| 4          | 33¾        | 857        | 22¾        | 578       | 4          | 102       | 33         | 838       | 23½        | 597       | 18½        | 470       | 9⅞         | 252       | 15⅞        | 386       | 180       | 81        | 203       | 92        |
| 6          | 43½        | 1105       | 30⅞        | 765       | 5½         | 140       | 44¾        | 1137      | 33¼        | 845       | 23⅞        | 589       | 13⅞        | 332       | 19         | 483       | 314       | 142       | 355       | 161       |
| 8          | 49¾        | 1264       | 37¾        | 959       | 6⅞         | 170       | 54⅞        | 1375      | 40⅞        | 1019      | 27⅞        | 697       | 15⅞        | 399       | 21⅞        | 538       | 499       | 226       | 574       | 260       |
| 10         | 57¾        | 1467       | 45¾        | 1162      | 8⅞         | 208       | 66         | 1676      | 49½        | 1257      | 32½        | 826       | 17⅞        | 440       | 24         | 610       | 800       | 363       | 970       | 440       |



### C300BFG, C300NBFG

| SIZE       |            | DIMENSIONS |                  |           |                  |           |                   |           |            |           |                   |           |                   | WEIGHT    |                   |           |           |           |           |           |
|------------|------------|------------|------------------|-----------|------------------|-----------|-------------------|-----------|------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-----------|-----------|-----------|-----------|
|            | A          |            | C                |           | D                |           | G                 |           | H          |           | I                 |           | J                 |           | P                 |           | C300BFG   |           | C300NBFG  |           |
| <i>in.</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         | 27¾        | 705        | 8                | 203       | 3½               | 89        | 29⅞               | 759       | 21½        | 546       | 14⅞ <sub>16</sub> | 379       | 8⅜ <sub>16</sub>  | 223       | 13                | 330       | 70        | 32        | 78        | 35        |
| 3          | 28¼        | 718        | 8⅝ <sub>16</sub> | 211       | 3⅞ <sub>16</sub> | 94        | 30⅞ <sub>16</sub> | 779       | 22¼        | 565       | 15⅞ <sub>16</sub> | 392       | 9⅜ <sub>16</sub>  | 233       | 13½               | 343       | 68        | 31        | 81        | 37        |
| 4          | 29         | 737        | 8⅞ <sub>16</sub> | 227       | 3⅞ <sub>16</sub> | 94        | 31⅞ <sub>16</sub> | 811       | 23½        | 597       | 16¼               | 412       | 9⅞ <sub>16</sub>  | 252       | 14                | 356       | 75        | 34        | 98        | 44        |
| 6          | 36½        | 927        | 10               | 254       | 5                | 127       | 43¾               | 1097      | 33¼        | 845       | 19⅞ <sub>16</sub> | 500       | 13⅞ <sub>16</sub> | 332       | 14½               | 368       | 131       | 59        | 171       | 78        |
| 8          | 42¾        | 1086       | 12¼              | 311       | 6½               | 165       | 51⅞ <sub>16</sub> | 1297      | 40⅞        | 1019      | 23¾ <sub>16</sub> | 592       | 15⅞ <sub>16</sub> | 399       | 18¾ <sub>16</sub> | 462       | 275       | 125       | 351       | 159       |

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

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

## Approvals

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC)
- AWWA C510-97

For additional approval information, contact the factory or check Ames Fire & Waterworks at watts.com.



## Capacity

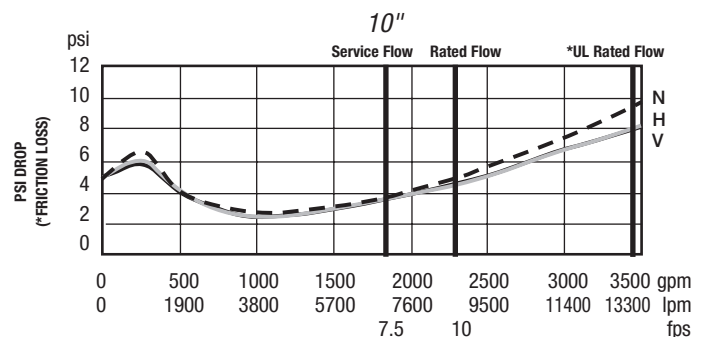
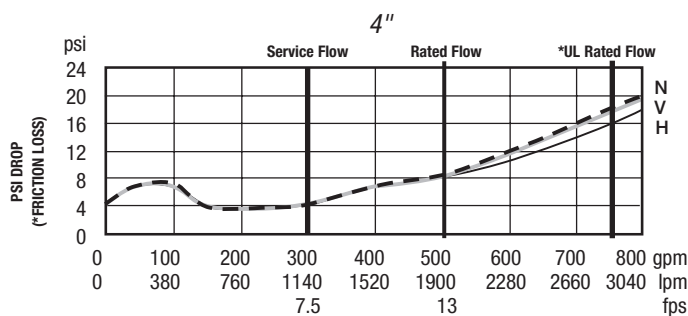
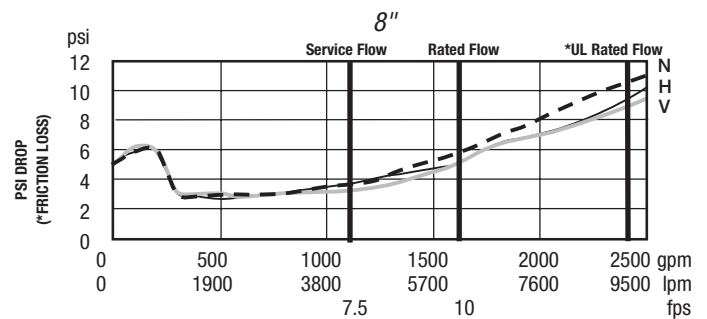
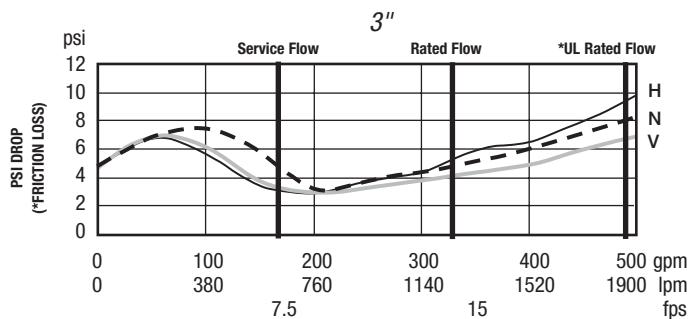
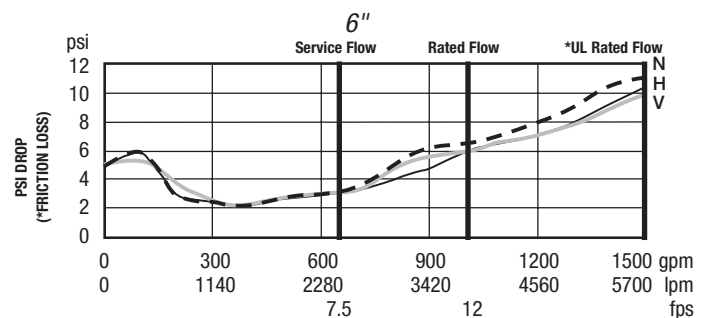
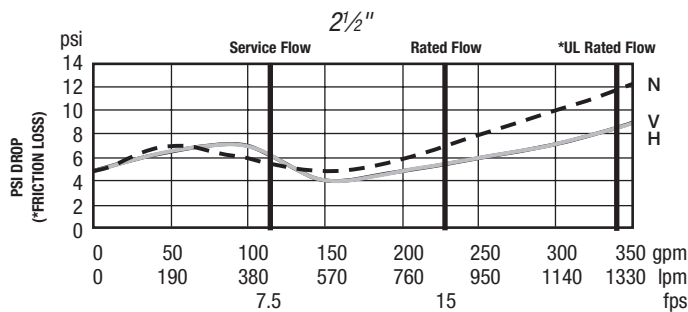
UL/FM Certified Flow Characteristics

Flow characteristics collected using butterfly shutoff valves

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.

—— Horizontal    —— Vertical    ..... N - Pattern



### NOTICE

Inquire with governing authorities for local installation requirements.



**A WATTS Brand**

ES-A-C300-C300N 2205

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