

## Engineering Specification

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

Contractor \_\_\_\_\_

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

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series 709DCDA

## Double Check Detector Assembly

3" – 10"

Series 709DCDA Double Check Detector Assemblies are designed exclusively for use in accordance with water authority containment requirements. The series is mandatory to prevent the reverse flow of fire protection system substances, such as glycerin wetting agents, stagnant water, and water of non-potable quality from being pumped or siphoned into the potable water line. The iron components of the backflow preventer are coated with ArmorTek®, a patented three-part advanced epoxy system engineered to reduce microbial-induced corrosion (MIC) and protect exposed metal substrate. All sizes are standardly equipped with resilient seated OSY shutoff valves,  $\frac{5}{8}$ " x  $\frac{3}{4}$ " meter, and ball type test cocks.

The assembly not only detects leaks, with emphasis on the cost of unaccountable water, but also incorporates a meter allowing the water utility to (1) detect leaks underground that historically create great annual cost due to waste and (2) provide a detection point for unauthorized use, helping locate illegal taps. The modular check design concept facilitates maintenance and assembly access.

### Features

- Body construction fused epoxy coated cast iron
- Replaceable bronze seats
- Maximum flow at low pressure drop
- Compact for economy combined with performance
- Design simplicity for easy maintenance
- ArmorTek coating technology to resist corrosion of internals
- Furnished with  $\frac{5}{8}$ " x  $\frac{3}{4}$ " bronze meter
- No special tools required for servicing

### Specification

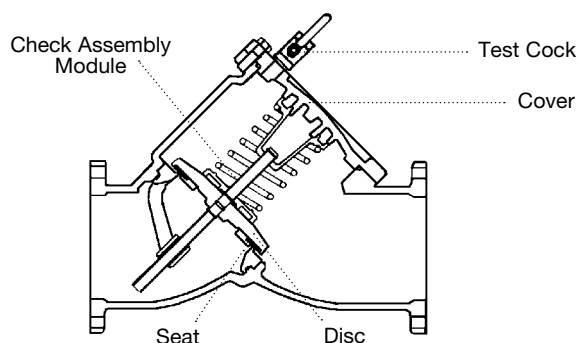
A Double Check Detector assembly shall be installed on fire protection systems when connected to a potable water supply. Degree of hazard present is determined by the local authority having jurisdiction. The unit shall be a complete assembly including UL Listed resilient seated OSY shutoff valves and test cocks. The unit shall be UL Classified and FM Approved with UL Classified and FM Approved OSY shutoff valves. The auxiliary line shall consist of an approved backflow preventer and water meter. The assembly shall meet the basic requirements of ASSE 1048; AWWA Std. C510 for Double Check Valves. Iron components of the backflow preventer shall incorporate ArmorTek coating technology, delivering integrated protection against electrochemical corrosion and microbial-induced corrosion. Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. The assembly shall be Watts Series 709DCDA.



709DCDA-OSY

### Check Assembly Module

The check assembly features a modular design concept that facilitates complete maintenance and assembly by retaining the spring load. The first and second check valve spring modules are not interchangeable.



### 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.

## Materials

|                    |                                                                    |
|--------------------|--------------------------------------------------------------------|
| Body:              | Cast iron                                                          |
| Coating:           | ArmorTek powder coating, applied to internal and external surfaces |
| Seat:              | Bronze                                                             |
| Disc Holder:       | Bronze                                                             |
| Trim:              | Stainless steel                                                    |
| Check Valve Discs: | Rubber                                                             |
| Test Cocks:        | Bronze                                                             |

## Model/Option

|     |                                                                                  |
|-----|----------------------------------------------------------------------------------|
| OSY | UL Classified and FM Approved outside stem and yoke resilient seated gate valves |
| CFM | Cubic feet per minute meter                                                      |
| GPM | Gallons per minute meter                                                         |
| LF  | 4" – 10" without shutoff valves                                                  |

## Pressure – Temperature

Temperature Range: 33°F – 110°F (0.5°C – 43°C) continuous, 140°F (60°C) intermittent  
Maximum Working Pressure: 175 psi (12.1 bar)

## Standards

AWWA Standard C510

## Approvals

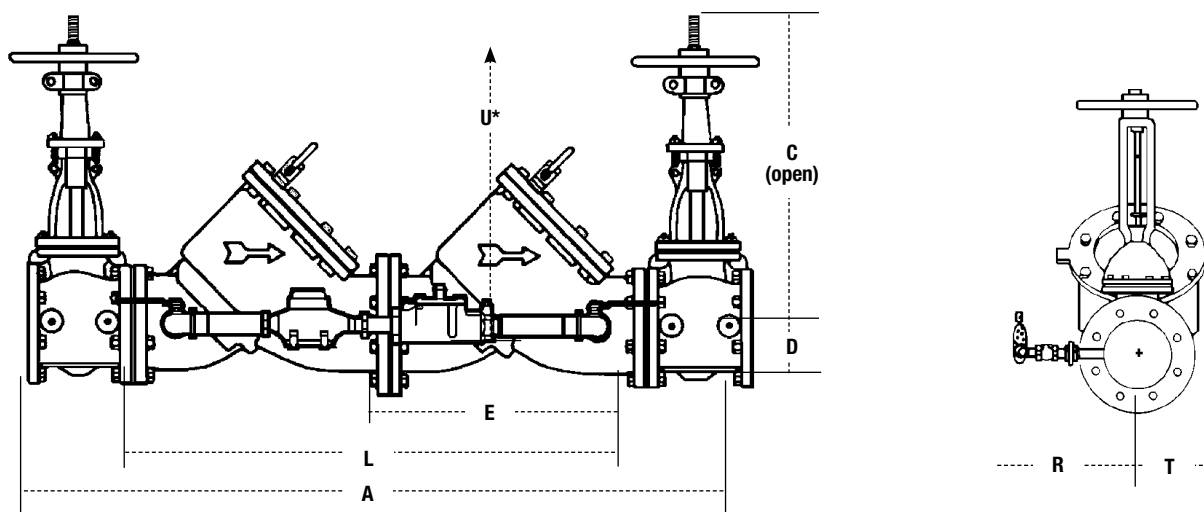


Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. Sizes 4" – 10" approved for horizontal and vertical "flow up." Size 3" approved for horizontal only.

## Insulated Enclosures

For more information on WattsBox insulated enclosures, download ES-WB at Watts.com.

## Dimensions – Weights



| SIZE       |            |           | DIMENSIONS                     |           |                               |           |            |           |            |           |            |           |            |           | WEIGHT     |           |              |           |
|------------|------------|-----------|--------------------------------|-----------|-------------------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|--------------|-----------|
|            | A          |           | C                              |           | D                             |           | E          |           | L          |           | R          |           | T          |           | U*         |           | W/OSY† gates |           |
| <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> |
| 3          | 40         | 1016      | 18 <sup>7</sup> / <sub>8</sub> | 479       | 3 <sup>1</sup> / <sub>2</sub> | 89        | 12         | 305       | 24         | 610       | 14         | 356       | 3          | 76        | 14         | 356       | 190          | 86        |
| 4          | 52         | 1321      | 22 <sup>3</sup> / <sub>4</sub> | 578       | 3 <sup>3</sup> / <sub>4</sub> | 95        | 17         | 432       | 34         | 864       | 15         | 381       | 6          | 152       | 14         | 356       | 403          | 183       |
| 6          | 62½        | 1588      | 30 <sup>1</sup> / <sub>8</sub> | 765       | 4½                            | 114       | 21         | 533       | 41½        | 1054      | 16         | 406       | 7½         | 191       | 16         | 406       | 727          | 330       |
| 8          | 75         | 1905      | 37¾                            | 959       | 5½                            | 140       | 26         | 660       | 52         | 1321      | 17         | 432       | 9          | 229       | 21         | 533       | 1327         | 602       |
| 10         | 90         | 2286      | 45¾                            | 1162      | 6½                            | 165       | 32         | 813       | 64         | 1626      | 18         | 457       | 10¼        | 260       | 25         | 635       | 2093         | 949       |

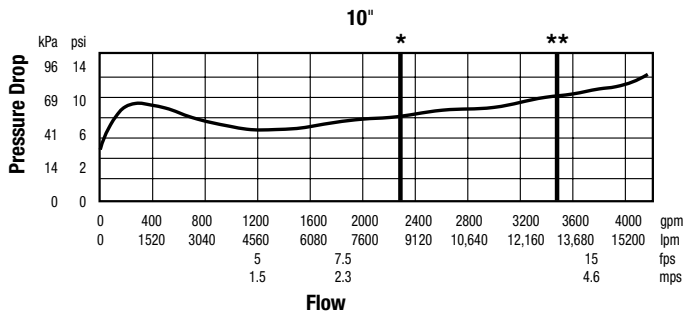
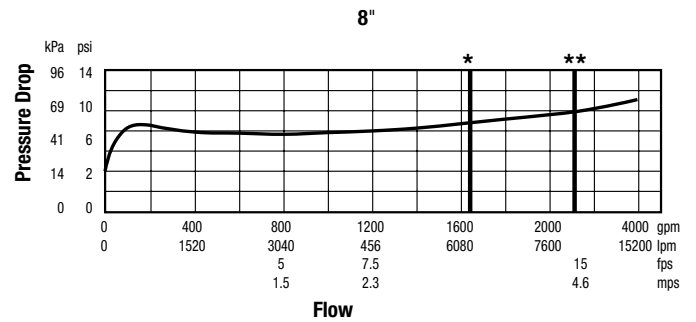
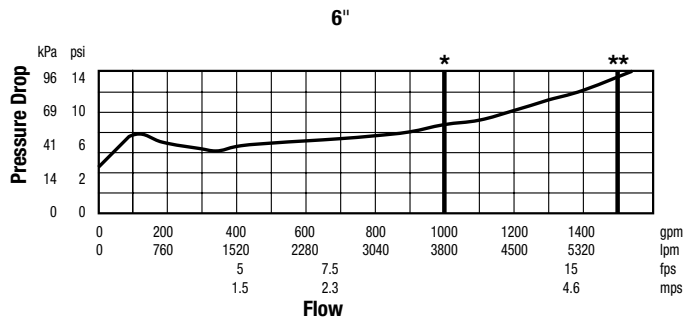
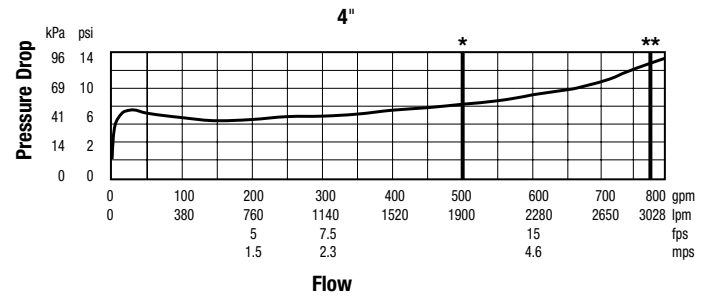
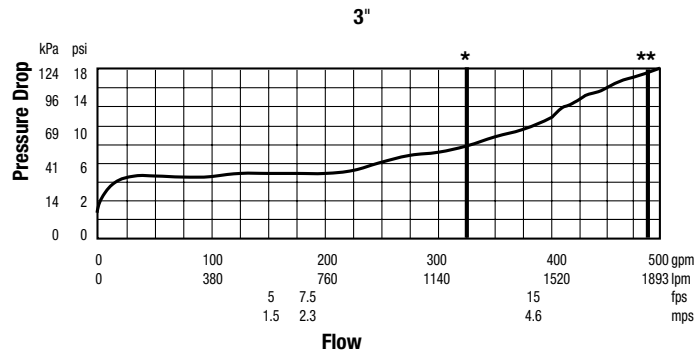
\* Service clearance for check assembly from center.

†UL Classified and FM Approved backflow preventers must include UL Classified and FM Approved OSY.

## Capacity

\*Rated flow

\*\*UL rated flow



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