# **Engineering Specification**

Job Name	Contractor
Job Location	Approval
Engineer	Contractor's P.O. No.
Approval	Representative

# Series 709DCDA Double Check Detector Assemblies

## 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 valve body is fused with ArmorTek<sup>™</sup> coating technology to resist corrosion due to microbial induced corrosion (MIC) or exposed metal substrate. All sizes are standardly equipped with resilient seated OSY shutoff valves, 5% x 3⁄4" meter, and ball type test cocks.

## **Benefits**

- Detects leaks, with emphasis on the cost of unaccountable water
- 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
- 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
- Advanced ArmorTek<sup>™</sup> coating technology to resist corrosion of internals
- Furnished with 5%" x 3/4" bronze meter
- No special tools required for servicing

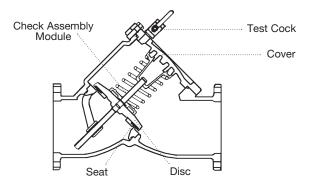
## Specification

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. The valve body shall utilize a coating system with built-in electrochemical corrosion inhibitor and microbial inhibitor. Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. Assembly shall be a Watts Series 709DCDA.



# **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.



#### Now Available WattsBox Insulated Enclosures For more information, download ES-WB.

#### 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.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts 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 Watts products previously or subsequently sold.



## Materials

Body:	Epoxy coated cast iron
Seat:	Bronze
Disc Holder:	Bronze
Trim:	Stainless steel
Check Valve Discs:	Rubber
Test Cocks:	Bronze
Coating:	ArmorTek™

# Models

Suffix: 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

# **Dimensions – Weights**

# Pressure – Temperature

Temperature Range:  $33^\circ\text{F}$  –  $110^\circ\text{F}$  (0.5°C –  $43^\circ\text{C})$  continuous, 140°F (60°C) intermittent

Maximum Working Pressure: 175 psi (12.1 bar)

## Standards

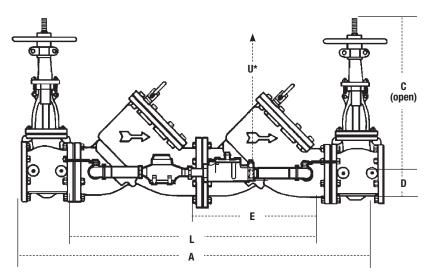
AWWA Standard C510

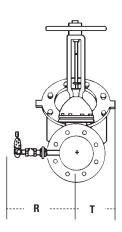
Approvals



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.

FM Approved 4" - 10" vertical "flow up."





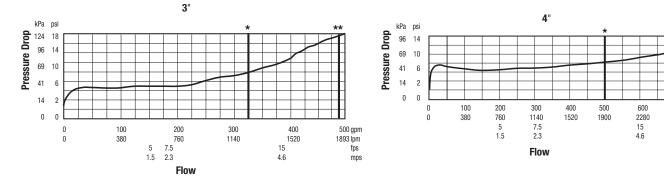
SIZE	DIMENSIONS										WEIGHT							
		A C		С	D		E L		L	R		Т		U*		W/OSY† gates		
In.	in.	тт	in.	тт	in.	тт	in.	тт	in.	тт	in.	тт	in.	тт	in.	тт	lb	kg
3	40	1016	181/8	479	31/2	89	12	305	24	610	14	356	3	76	14	356	190	86
4	52	1321	223⁄4	578	33⁄4	95	17	432	34	864	15	381	6	152	14	356	403	183
6	62½	1588	301/8	765	<b>4</b> <sup>1</sup> / <sub>2</sub>	114	21	533	<b>41</b> ½	1054	16	406	<b>7</b> ½	191	16	406	727	330
8	75	1905	37¾	959	51/2	140	26	660	52	1321	17	432	9	229	21	533	1327	602
10	90	2286	45¾	1162	61/2	165	32	813	64	1626	18	457	<b>10</b> <sup>1</sup> / <sub>4</sub>	260	25	635	2093	949

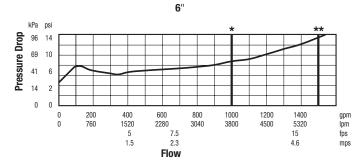
\* Service clearance for check assembly from center.

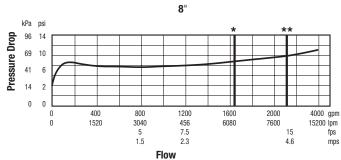
†UL Classified and FM Approved backflow preventers must include UL Classified and FM Approved OSY.

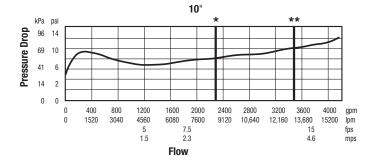
Capacity \*Rated flow













800 gpm 3028 lpm fps mps

700

2650