

## For Non-Health Hazard Commercial Fire Applications

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

Contractor \_\_\_\_\_

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

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Model 007M1DCDA

## Residential Fire Sprinkler

### Double Check Detector Backflow Prevention Assembly

Sizes: 2" (50mm)

The Model 007M1DCDA Double Check Detector Assembly is specifically designed to protect against possible backpressure and backsiphonage conditions for non-health hazard (i.e., pollutant) application in accordance with Local Governing Water Utility Code. This assembly is primarily used on commercial fire sprinkler systems where Local Governing Code mandates protection from non-potable quality water being pumped or siphoned back into the potable water system.

#### Typical Installation

The Model 007M1DCDA is typically installed for service on commercial fire sprinkler systems. It is recommended this device is installed after a water meter and/or main line isolation shut-off valve with installation techniques that comply with the latest edition of the Uniform Plumbing Code. Please consult Local Governing Code for proper installation and agency code requirement.

This Engineering Sheet is not intended to replace the product installation and safety information available or the experience of a trained product installer. Please refer to the product installation and safety instructions for further information.

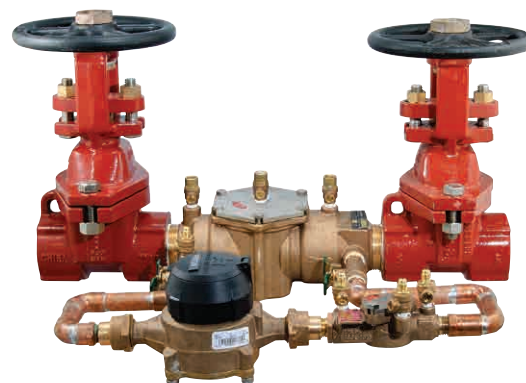
#### Features

##### Main Valve

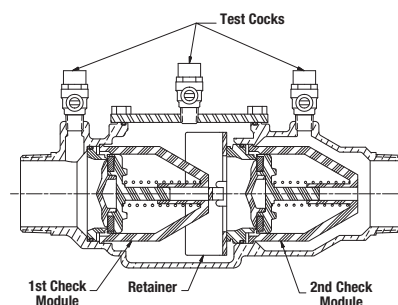
- Compact Design for Ease of Installation
- Inline Serviceable Assembly
- No Special Tools Required for Servicing
- Captured Modular Spring Loaded Checks
- Field Replaceable Seats & Discs
- Field Replaceable Auxiliary Bypass Line & Components

##### Auxiliary Bypass

- Compact Bypass Design; Remains within Main Valve Assembly Profile
- Inline Serviceable 1/2" Backflow Assembly
- No Special Tools Required for Servicing
- Captured Modular Spring Loaded Checks
- Field Replaceable Seats & Discs
- Detect Potential Underground Water Leaks
- Detect Unauthorized Water Usage



2" (50mm) 007M1DCDA-OSY-GPM



#### Product Specifications

The Model 007M1DCDA consists of a main line valve body composed of two (2) independently acting approved poppet-type check modules with replaceable seats and disc rubbers. Servicing of both check modules do not require any special tools and are accessed via a single top entry cover. This device is fitted with approved UL Listed OS&Y Gate Valve Assemblies and contains properly located resilient seated test cocks along the main valve body.

The auxiliary bypass line contains a 5/8"x3/4" (16 x 19mm) Water Meter that complies with ANSI/AWWA Standard C700 coupled with an approved double check assembly (DC). The bypass line is design to detect leaks or unauthorized water usage of the water system while protecting against possible backpressure and backsiphonage conditions for non-health hazard (i.e., pollutant) application.

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**WattsBox Insulated Enclosures.**  
 For more information, refer to literature ES-WB.

#### NOTICE

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.



## Approvals – Standards

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC)
- ASSE 1048 Listed
- UL Classified (US & Canada)
- FM Approved
- IAPMO/cUPC
- AWWA Standard C510 Compliant
- NFPA 13, 14, 15, 16, 20, 22 & 24 Compliant
- End Connections OS&Y Gate Valves – Compliant to ASME B16.1 Class 125 & AWWA Class D Flange



## Assembly Flow Orientation

- Horizontal - Approved by FCCCHR-USC, ASSE, UL, FM, IAPMO/cUPC
- Vertical Up - Approved by FCCCHR-USC, ASSE, UL, FM, IAPMO/cUPC

## Material Specifications

- Body: Cast Bronze ASTM B584
- Elastomers: Silicone
- O-Rings: EPDM
- Check Modules: Engineered Plastics

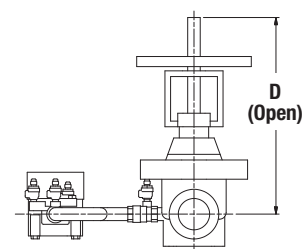
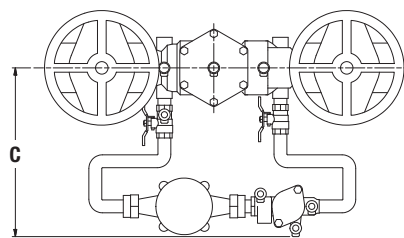
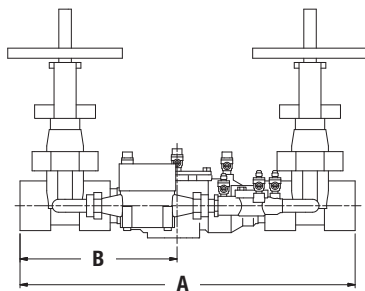
## Pressure Specification

- Max. Working Pressure: 175psi
- Min. Working Pressure: 10psi
- Hydrostatic Test Pressure: 350psi
- Hydrostatic Safety Pressure Rating: 700psi

## Temperature Specifications

- Continuous Operating Range: 33°F-110°F (0.5°C-43°C)
- Intermittent Operating Range up to 140°F (60°C)  
Must not exceed 12 hour duration

## Dimensions – Weights



MODEL	SIZE (DN)		DIMENSIONS								WEIGHT	
	in.	mm	A		B		C		D		lbs.	kgs.
007M1DCDA-OSY	2	50	22 <sup>5</sup> / <sub>8</sub>	575	10 <sup>9</sup> / <sub>16</sub>	268	11 <sup>13</sup> / <sub>16</sub>	300	13 <sup>1</sup> / <sub>2</sub>	343	85	38.6

## Configurable Options (Prefix – Suffix)

### Suffix

- OSY: UL/FM Approved OS&Y Gate Valves (ANSI/AWWA C515 Compliant)
- CFM: Totalizing Cubic Feet/Minute 5/8"x3/4" Water Meter (ANSI/AWWA C700 Compliant)
- GPM: Totalizing Gallons/Minute 5/8"x3/4" Water Meter (ANSI/AWWA C700 Compliant)
- LF: Less Shutoff valves; This is **NOT** an APPROVED ASSEMBLY

## Example Ordering Descriptions

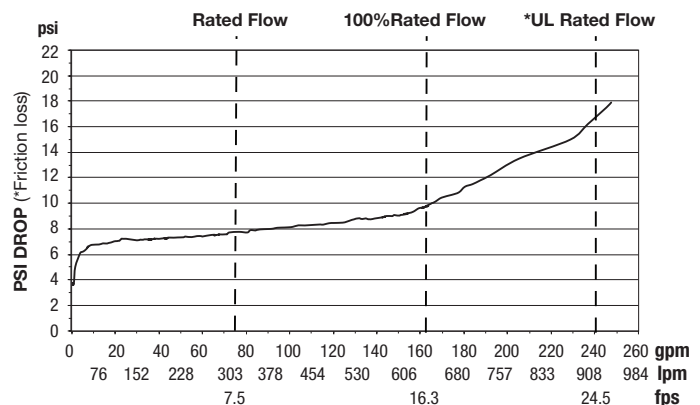
2" 007M1DCDA-OSY-GPM - Valve Fitted with OS&Y Shutoff & Gallon per Minute Water Meter

2" 007M1DCDA-LF-CFM – Non-Approved Device with Cubic Feet per Minute Water Meter & No Shutoff Valves

## Performance

Flow capacity chart identifies valve performance based upon rated water Velocity up to 20fps

- Maximum service flow rate is determined by maximum rated Velocity of 7.5fps.
- AWWA Manual M-22 (Appendix C) recommends that the maximum water Velocity in the services be not more than 10fps.
- UL flow rate is determined by typically rated Velocity of 15 fps.



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