Engineering Specification

Job Name _____

Job Location _____

Engineer _____

Approval _____

Contractor _____

Approval _____

Contractor's P.O. No. _____

Representative _____

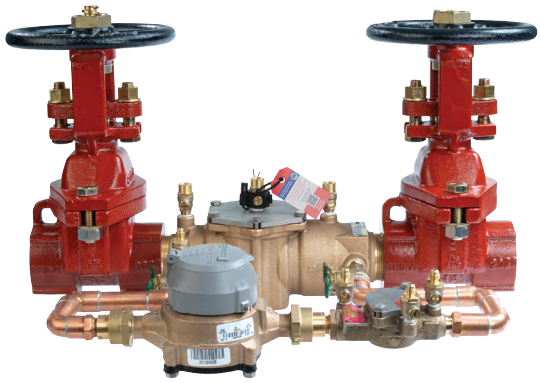
Series 007M1DCDA

Residential Fire Sprinkler Double Check Detector Assembly

2"

⚠ WARNING

Freeze sensor solely provides alerts about a possible freeze event and cannot prevent a freeze event from occurring. User action is required to prevent freeze conditions from causing product and/or property damage.



007M1DCDA-OSY-GPM with Freeze Sensor

Series 007M1DCDA Double Check Detector Assembly is specifically designed to protect against backpressure and backsiphonage conditions for non-health hazard 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. Watts recommends the installation of this device after a water meter and/or main line insolation shut-off valve using techniques that comply with the latest edition of the Uniform Plumbing Code. Consult Local Governing Code for proper installation and agency code requirements.

The series includes a freeze sensor that can indicate when temperature nears the freezing point. Installed on the assembly exterior, the sensor does not alter assembly functions or certifications. The sensor relays a signal that triggers notification to facility personnel to take preventive action, thus reducing or eliminating equipment replacement or repair.

NOTICE

An add-on connection kit is required to activate the freeze sensor. Without the connection kit, the sensor is a passive component that does not communicate with any other device. (For more information download RP/IS-007DCDA.)

NOTICE

Use of the freeze sensor does not replace the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of the backflow preventer.

Watts is not responsible for data transmission failures due to power outages, connectivity issues, or improper installation.

Features

Main Valve

- Compact design for ease of installation
- In-Line serviceable assembly
- No special tools required for servicing
- Captured modular spring-loaded checks
- Field replaceable seats and discs
- Sensor included to indicate temperature at freeze threshold when activated with add-on connection kit, compatible with building and irrigation management systems

Auxiliary Bypass

- Compact design that remains within the main valve assembly profile
- Field replaceable auxiliary bypass line and components
- Detects potential underground water leaks
- Detects unauthorized water usage

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.

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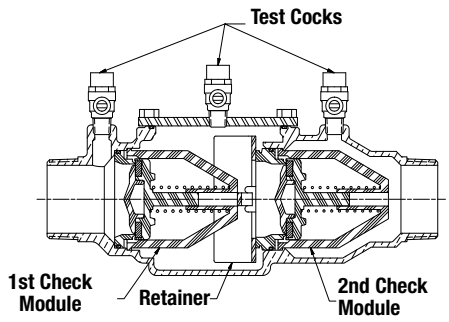
Specification

Series 007M1DCDA shall consist of a main line valve body with two (2) independently acting approved poppet-type check modules including replaceable seats and disc rubbers. Servicing of both check modules shall not require any special tools and are accessed via a single top entry cover. This device shall be fitted with UL Classified OS&Y gate valve assemblies and properly located resilient seated test cocks along the main valve body.

The auxiliary bypass line shall contain a 5/8" x 3/4" water meter that complies with ANSI/AWWA Standard C700 coupled with an approved double check assembly (DC). The bypass line shall be designed to detect leaks or unauthorized water usage of the water system while protecting against possible backpressure and backsiphonage conditions for non-health hazard application.

The assembly shall be a Watts Series 007M1DCDA, and shall include a freeze sensor mounted to one of the test cocks.



Configurable Options

FZ	Freeze sensor
OSY	UL Classified OS&Y gate valves (ANSI/AWWA C515 Compliant)
CFM	Totalizing cubic feet/minute 5/8" x 3/4" water meter (ANSI/AWWA C700 Compliant)
GPM	Totalizing gallons/minute 5/8" x 3/4" water meter (ANSI/AWWA C700 Compliant)
LF	Less shutoff valves (This is not an approved assembly.)

Materials

Body:	Cast Bronze ASTM B584
Elastomers:	Silicone
O-rings:	EPDM
Check Modules:	Engineered plastics

Pressure

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

Temperature

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

Intemittent Operating Range: up to 140°F (60°C)

Must not exceed 12-hour duration

Approvals – Standards

1048 (OSY only) USC-FCCCHR

Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California

ASSE 1048 Listed

UL Classified (US & Canada)

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 USC-FCCCHR, ASSE, UL Classified

Vertical Up - Approved by USC-FCCCHR, AASSE, UL Classified

Example Ordering Descriptions

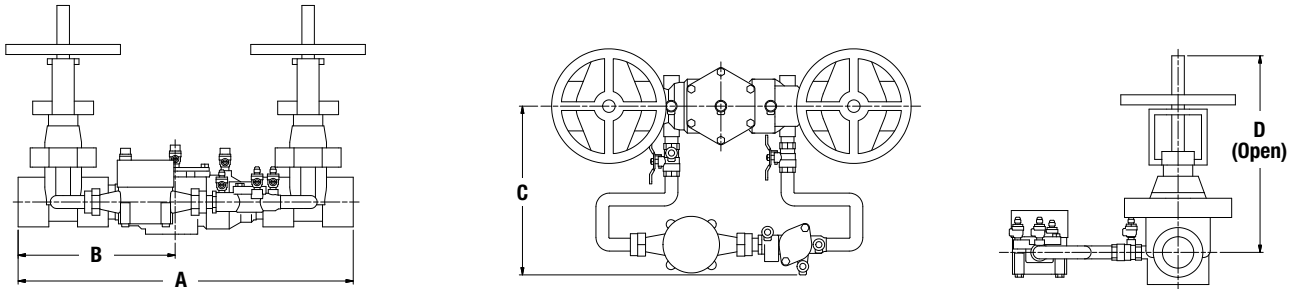
2" 007M1DCDA-OSY-GPM - Valve fitted with OS&Y shutoff and gallon/minute water meter

2" 007M1DCDA-LF-CFM – Non-approved device with cubic feet/minute water meter and no shutoff valves

Insulated Enclosure

The WattsBox insulated enclosure can be installed with this series. For more information, download ES-WB.

Dimensions – Weights



Call customer service if you need assistance with technical details.

MODEL	SIZE	DIMENSIONS								WEIGHT	
		A		B		C		D			
	in.	in.	mm	in.	mm	in.	mm	in.	mm	lb	kg
007M1DCDA-0SY	2	22⅝	575	10⁹⁄₁₆	268	11¹³⁄₁₆	300	13½	343	85	38.6

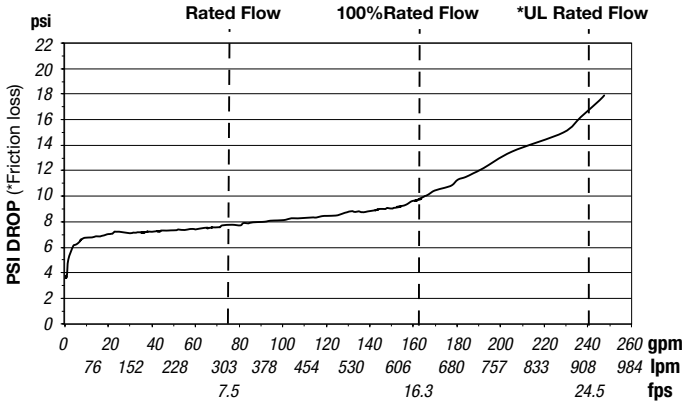
Capacity Performance

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

Maximum service flow rate is determined by maximum rated velocity of 7.5 fps.

AWWA Manual M-22 (Appendix C) recommends that the maximum water velocity in the services be not more than 10 fps.

UL flow rate is determined by typically rated velocity of 15 fps.



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