Engineering Specification

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

Series 007

Double Check Valve Assembly

½" – 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.

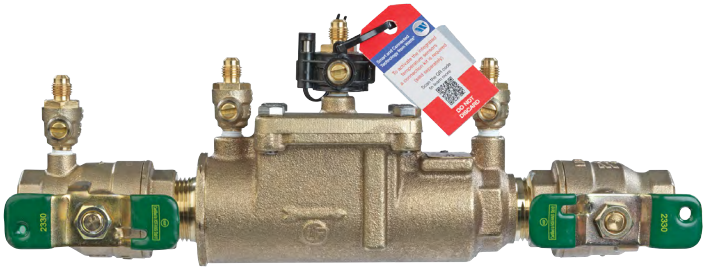
Series 007 Double Check Valve Assemblies are designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as irrigation, fireline, or industrial processing. Only those cross-connections identified by local inspection authorities as non-health hazard shall be allowed the use of an approved double check valve assembly.

Check with local authority having jurisdiction regarding vertical orientation, frequency of testing or other installation 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-007S.)



007-FZ

Features

- Ease of maintenance with only one cover
- Top entry
- Replaceable seats and seat discs
- Modular design to facilitate maintenance and assembly by retaining the spring load
- Compact design
- Cast bronze body construction
- Top mounted ball valve test cocks
- Low pressure drop
- No special tools required for servicing
- Tee handles, **½"** – 1"; lever handles, sizes 1¼" to 2"
- Sensor included to indicate temperature at freeze threshold when activated with add-on connection kit, compatible with building and irrigation management systems

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.

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.

Specification

A Double Check Valve assembly shall be installed at each noted location. The assembly shall consist of two positive seating check modules with captured springs and rubber seat discs. The check module seats and seat discs shall be replaceable. Service of all internal components shall be through a single bronze or stainless steel access cover secured with stainless steel bolts. The assembly shall also include two resilient seated isolation valves; four top mounted, resilient seated test cocks. The assembly shall meet the requirements of ASSE Std. 1015 and AWWA Std. C510. Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. Assembly shall be a Watts Series 007 and shall include a freeze sensor mounted to one of the test cocks.

Model/Option

Prefix:

U	Union end connections

Suffix:

FZ	Freeze sensor
S	Bronze strainer
LF	Without shutoff valves
SH	Stainless steel ball valve handles
HC	2½" inlet/outlet fire hydrant fittings (2" valve)

Pressure — Temperature

Temperature Range: 33°F – 180°F (0.5°C – 82°C)

Maximum Working Pressure: 175 psi (12.1 bar)

Standards

ASSE Std. 1015, AWWA Std. C510

IAPMO PS31, CSA B64.5

Approvals

USC-FCCCHR

ASSE, AWWA, IAPMO, CSA, UPC

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

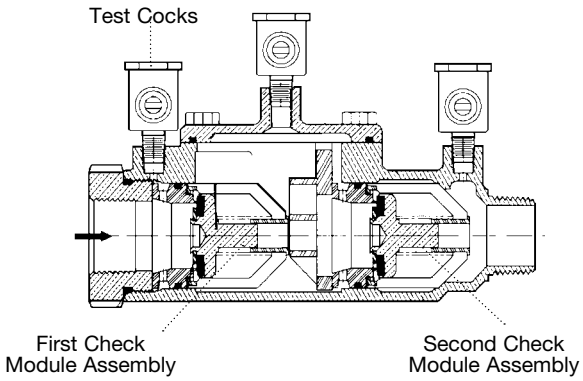
Options FZ, LF, and S not listed

UL Classified without shutoff valves only (¾" to 2", except 007M3LF)

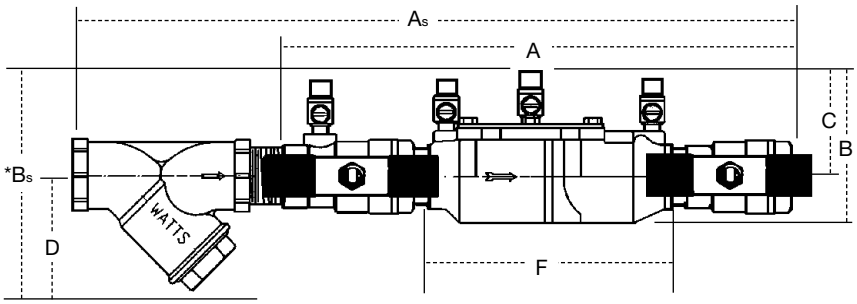
Horizontal and vertical "flow up" approval on all sizes

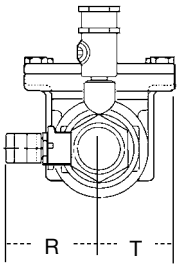
Insulated Enclosure

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



Dimensions – Weights





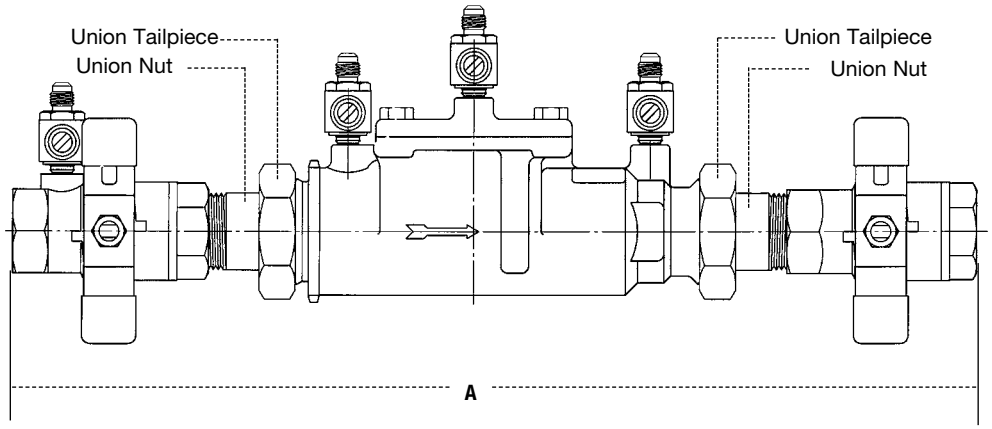
*Subscript 'S' = strainer model

Call customer service if you need assistance with technical details.

MODEL	SIZE	DIMENSIONS																WEIGHT	
		A		B		C		D		F		G		R		T			
	in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lb*	*kg*
007QT	½	10	254	4⅝	117	2 7/16	62	—	—	5	127	3⅜	85	2 5/16	59	2 1/16	52	4.5	2.0
007M3QT	¾	11⅛	282	4	102	3⅛	79	—	—	6 3/16	157	3 7/16	87	2⅛	54	15/16	33	5.0	2.3
007M1QT	1	13¼	337	5⅛	130	4	102	—	—	7½	191	3⅜	85	1 11/16	43	1 11/16	43	12.0	5.4
007M2QT	1¼	16⅜	416	5	127	3 5/16	84	—	—	9½	241	5	127	3	76	2	50	15.0	6.8
007M2QT	1½	16¾	425	4⅞	124	3½	89	—	—	9¾	248	5 13/16	148	3⅛	79	2 11/16	68	15.9	7.2
007M1QT	2	19½	495	6¼	159	4	102	—	—	13⅜	340	6⅛	156	3 7/16	87	2 11/16	68	25.7	11.7
007QT-S	½	13	330	6	152	2 7/16	62	3	76	5	127	3⅜	85	2 5/16	59	2 1/16	52	5.5	2.5
007M3QT-S	¾	14½	368	6⅛	156	3⅛	79	3	76	6 3/16	157	3 7/16	87	2⅛	54	15/16	33	6.7	3.1
007M1QT-S	1	17 15/16	456	7¾	197	4	102	3¼	83	7½	191	3⅜	85	1 11/16	43	1 11/16	43	14.0	6.4
007M2QT-S	1¼	21½	546	7 1/16	179	3 5/16	84	3½	83	9½	241	5	127	3	76	2	50	19.0	8.6
007M2QT-S	1½	21¾	552	7 1/16	179	3½	89	3¾	95	9¾	248	5 13/16	148	3⅛	79	2 11/16	68	19.6	8.9
007M1QT-S	2	25¾	654	8¾	222	4	102	4	102	13⅜	340	6⅛	156	3 7/16	87	2 11/16	68	33.5	15.2

Suffix HC — Fire Hydrant Fittings dimension "A" = 23½" (594 mm)

1" U007M1QT



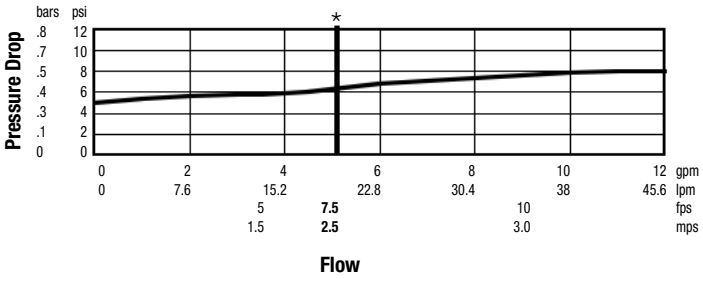
MODEL	SIZE	DIMENSIONS	
		A	
	in.	*in.*	*mm*
U007QT	½	12 13/16	326
U007M2QT	¾	13 13/16	350
U007M2QT	1	16⅝	422
U007M2QT	1¼	20¾	527
U007M2QT	1½	21½	546
U007M1QT	2	24½	622

Capacity

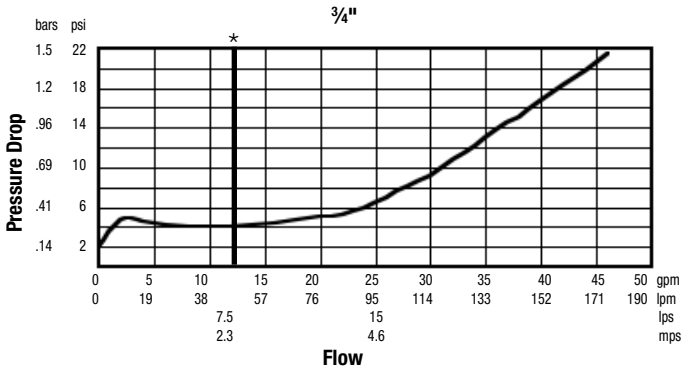
As complied from documented Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California lab tests.

* Typical maximum system flow rate (ft/s; 2.3 m/s)
** UL rated flow

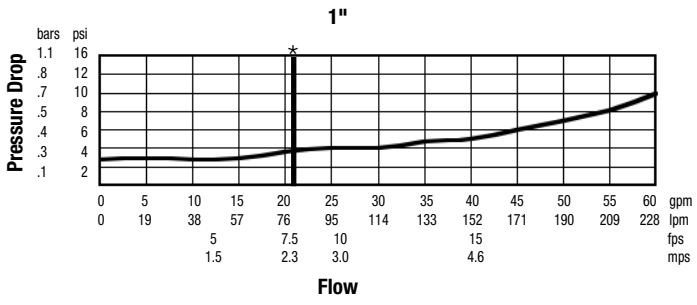
½"



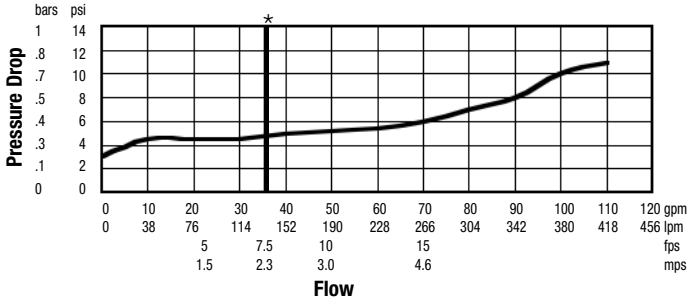
¾"



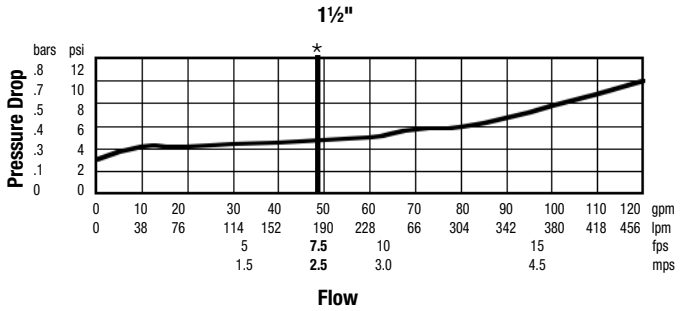
1"



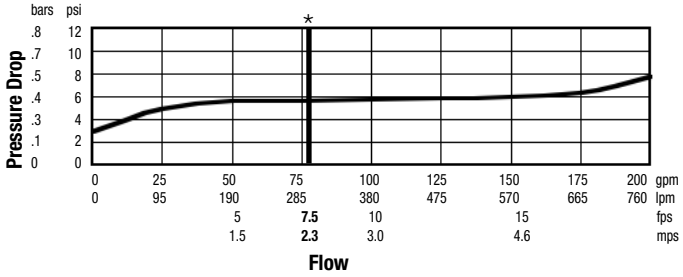
1¼"



1½"



2"



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