



ZURN 350DA Double Check Detector Instruction Manual

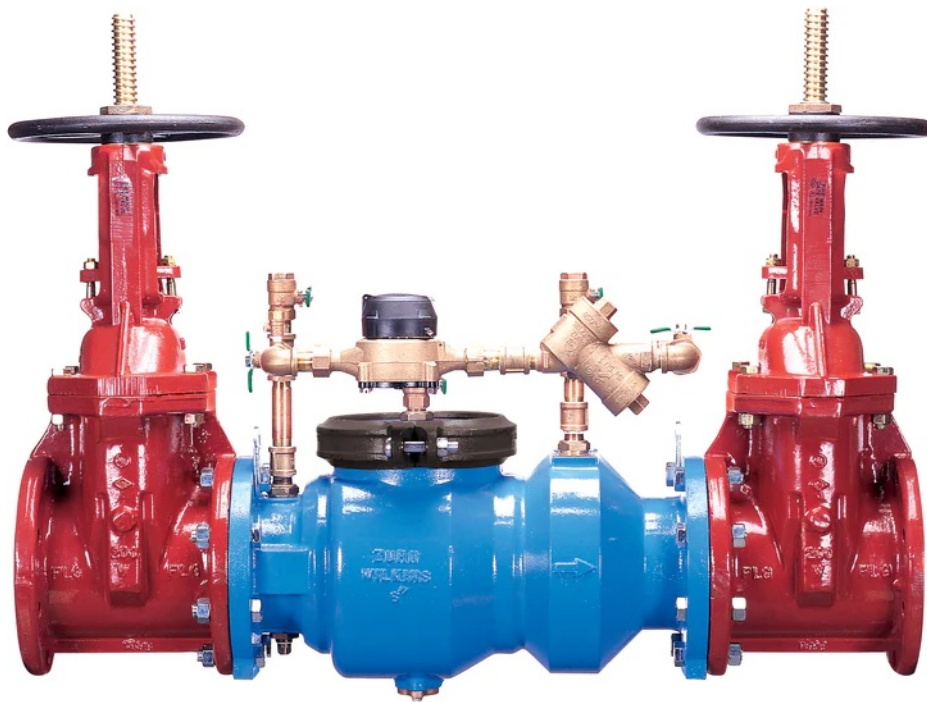
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ZURN 350DA Double Check Detector



Product Information

The Model 350DA is a Double Check Detector Assembly designed for installation on water lines in fire protection systems. It provides protection against both backsiphonage and backpressure of polluted water into the potable water supply. The assembly incorporates a metered by-pass to detect leaks and unauthorized water use. It is suitable for use in situations where a potential health hazard does not exist.

The assembly is made of high-quality materials including ductile iron, stainless steel, NORYLTM, and elastomers. It meets standards compliance for sizes 2 1/2 – 10 horizontally and vertically, and 12 horizontally only. The main valve body and access covers have a NSF Approved fusion epoxy finish for durability.

Various options are available for the Model 350DA, including different types of gate valves, water meters, and connections. Accessories such as repair kits, thermal expansion tanks, and tamper switches are also available.

The assembly comes in different sizes ranging from 2 1/2 inches to 12 inches. It has maximum working water pressure and temperature specifications, as well as hydrostatic test pressure requirements. The end connections are grooved for steel.

Product Usage Instructions

1. Select the appropriate size of the Model 350DA assembly based on the water line requirements.
2. Ensure that the installation location is suitable for protecting against backsiphonage and backpressure of polluted water into the potable water supply.
3. Inspect the assembly for any damages or defects before installation.
4. Follow the provided guidelines for connecting the assembly to the water line using the appropriate end connections (grooved for steel).
5. If required, choose and install the desired options such as gate valves, water meters, or additional accessories.
6. Perform a hydrostatic test to ensure the assembly meets the specified pressure requirements.
7. Regularly monitor the assembly for leaks or unauthorized water use through the metered by-pass.
8. If any maintenance or repairs are needed, refer to the provided repair kit or contact the manufacturer for assistance.

Application

Designed for installation on water lines in fire protection systems to protect against both backsiphonage and backpressure of polluted water into the potable water supply. Model 350DA shall provide protection where a potential health hazard does not exist. Incorporates metered by-pass to detect leaks and unauthorized water use.

Standards Compliance

(Sizes 2 1/2" – 10" Horiz. & Vert.)

(12" Horizontal Only)

- ASSE® Listed 1048 (Sizes 2 1/2" thru 12")
- CSA® Certified B64.5 (Sizes 2 1/2" thru 8", & 12")
- AWWA Compliant C510 (Sizes 2 1/2" thru 12"), and C550
- UL® Classified (Sizes 2 1/2" thru 12")
- C-UL® Classified (Sizes 2 1/2" thru 12")
- FM® Approved (Sizes 2 1/2" thru 10")
- NYC MEA 147-99-M Vol 4 (2-1/2" – 10")
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California (Sizes 2 1/2" thru 12")
- Meets the requirements of NSF/ANSI/CAN 61*
*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

By-Pass Backflow Assembly 3/4" Model 950XLD

Materials

- Main valve body Ductile Iron ASTM A 536
- Access covers Ductile Iron ASTM A 536
- Coatings NSF Approved fusion epoxy finish
- Internals Stainless steel, 300 Series NORYL™
- Fasteners Stainless Steel, 300 Series
- Elastomers EPDM (FDA approved)
- Buna Nitrile (FDA approved)
- Polymers NORYL™
- Springs Stainless Steel, 300 Series

Dimensions & Weights (do not include pkg.)

MODEL 350ADA SIZE		WEIGHT							
		LESS SHUT- OFF VALVES		OS&Y GATE VALVES FLANGED		OS&Y GATE VALVES GROOVED		BUTTERFLY VALVES GROOVED	
in.	mm	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
2 1/2	65	68	31	178	81	160	73	140	64
3	80	68	31	198	90	150	68	120	54
4	100	106	48	296	134	282	128	190	86
6	150	180	82	480	218	454	206	298	135
8	200	374	170	850	386	802	364	548	249
10	250	404	183	1222	554	1156	524	792	359
12	300	463	210	1623	736	n/a	n/a	n/a	n/a

Attention:

Model 350DA (flange body) and Model 350ADA (grooved body) have different lay lengths.

MODE L 350D A SIZE		DIMENSION (approximate)																			
		A		A WITH BUTTE RFLY V ALVES		B LESS GATE V ALVES		C		D		E OS&Y OPEN		E OS&Y C LOSED		E WITH BUTTE RFLY V ALVES		F		G	
in.	m	in.	m	in.	m	in.	m	in.	m	in.	m	in.	m	in.	m	in.	m	in.	m	in.	m
2 1/ 2	6 5	31	78 7	28	71 1	15 7/8	40 3	3 3/ 4	9 5	9	22 9	17 3/4	45 1	15 3/8	3 9 1	13 3/4	3 4 9	3 1/ 2	8 9	7 1/ 4	18 4
3	8 0	32	81 3	28 1/2	72 4	15 7/8	40 3	3 3/ 4	9 5	9	22 9	20 1/4	51 4	17	4 3 2	13 3/4	3 4 9	3 1/ 2	8 9	7 1/ 4	18 4
4	1 0 0	37 5 /8	95 6	32 8/9	83 5	19 1/2	49 5	4 1/ 2	1 1 4	9	22 9	22 1/2	57 2	18 1/4	4 6 4	17	4 3 2	6	1 5 2	8	20 3
6	1 5 0	44 5 /8	11 33	37 5/8	95 6	23 1/2	59 7	6	1 5 2	10 1/ 2	26 7	30 1/2	77 5	24 1/4	6 1 6	17 1/2	4 4 5	7	1 7 8	1 0	25 4
8	2 0 0	60 7 /8	15 46	53 7/8	13 69	37 3/4	95 9	10	2 5 4	12	30 5	37	94 0	28 1/2	7 2 4	16 15/ 16	4 3 0	8 1/ 2	2 1 6	1 1	27 9
10	2 5 0	63 7 /8	16 22	57 7/8	14 70	37 3/4	95 9	10	2 5 4	12	30 5	45 5/8	11 59	34 3/4	8 8 3	16 15/ 16	4 3 0	8 1/ 2	2 1 6	1 2	30 5
12	3 0 0	66 3 /16	16 81	n/a	n/ a	38	96 5	10	2 5 4	12	30 5	53	13 46	40 1/2	1 0 2 9	n/a	n/ a	8 7/ 8	2 2 6	1 6 3/ 4	42 5
Zurn Industries, LLC Wilkins 1747 Commerce Way, Paso Robles, CA U.S.A. 93446 Ph. 855-663-9876, Fax 805-238-5766 In Canada Zurn Industries Limited 7900 Goreway Drive, Unit 10, Brampton, Ontario L6T 5W6, 877-892-5216 www.zurn.com														Rev. Q Date: 9/22 Document No. BF-350DA Product No. Model 350DA Patent zurn.com/patents Page 1 of 2							

Options

(Suffixes can be combined)

- – with OS & Y gate valves (standard)
- L – less shut-off valves (flanged body connections)

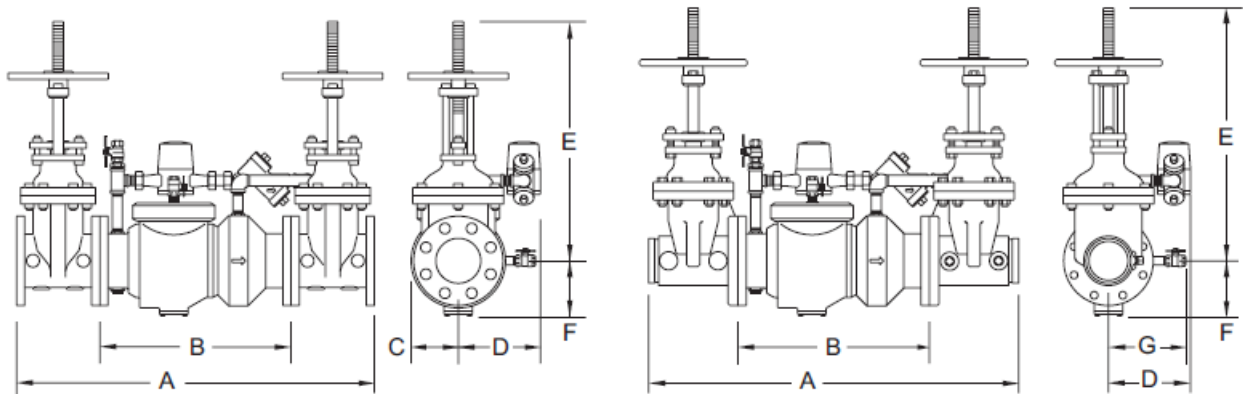
- LM – less water meter
- – with gallon meter (standard)
- CFM – with cu ft meter
- CMM – with cu meter meter
- G – with groove end gate valves
- FG – with flanged inlet connection and grooved outlet connection
- PI – with Post Indicator Gate Valve
- GF – with flanged inlet connection and grooved outlet connection
- BG – with grooved end butterfly valves with integral monitor switches (2 1/2" – 10")

Accessories

- Repair kit (rubber only)
- Thermal expansion tank (Model XT)
- OS & Y Gate valve tamper switch (OSY-40)

Features

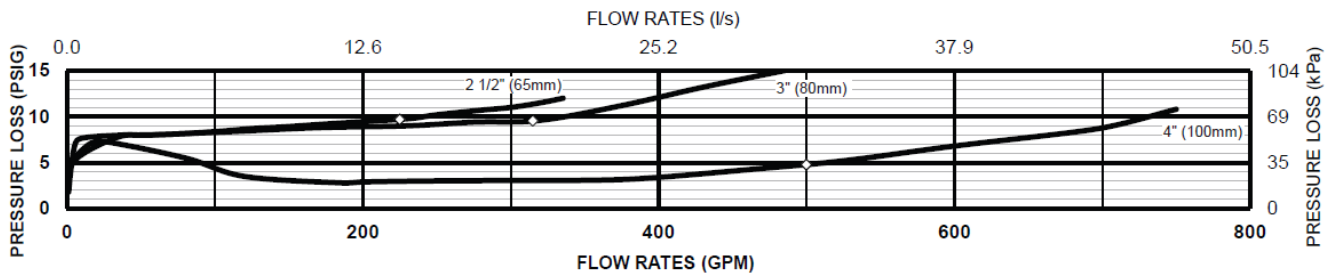
- Sizes: 2 1/2", 3", 4", 6", 8", 10", 12"
- Maximum working water pressure 175 PSI
- Maximum working water temperature 140°F
- Hydrostatic test pressure 350 PSI
- End connections (Grooved for steel) AWWA C606
(Flanged bolt pattern) ASME B16.42 Class 150



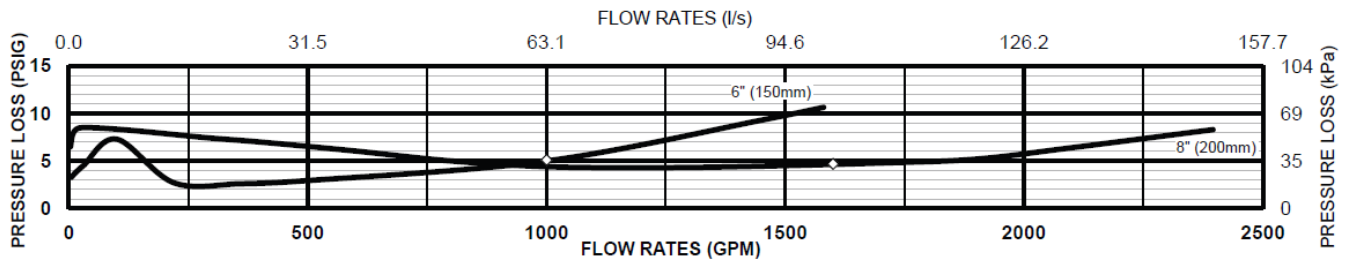
MODEL 350DAG SHOWN ABOVE

Flow Characteristics

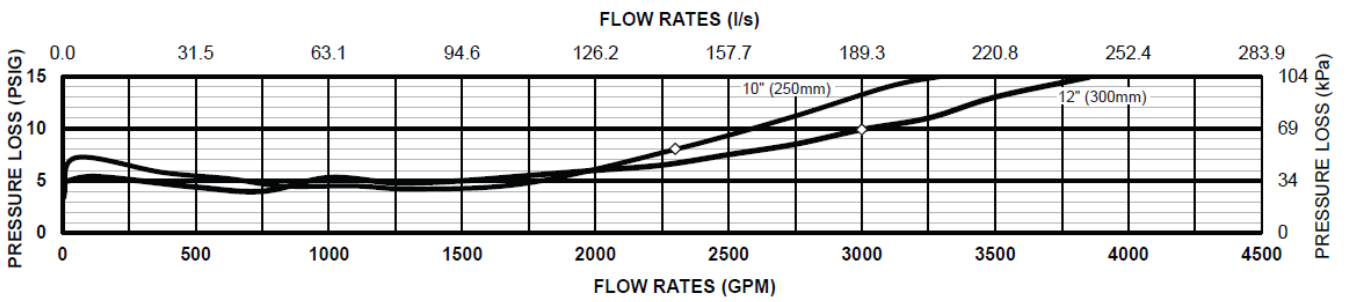
MODEL 350DA 2 1/2", 3" & 4" (STANDARD & METRIC)



MODEL 350DA 6" & 8" (STANDARD & METRIC)

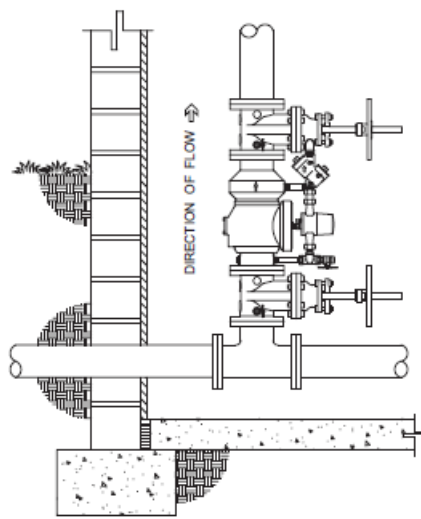


MODEL 350DA 10" & 12" (STANDARD & METRIC)

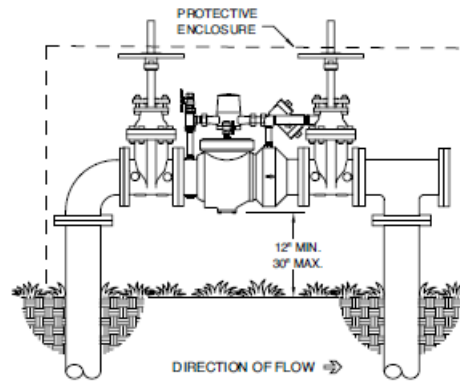


Typical Installation

Local codes shall govern installation requirements. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 30" (762mm) above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.



VERTICAL INSTALLATION



OUTDOOR INSTALLATION

Capacity thru Schedule 40 Pipe (GPM)				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
2 1/2"	75	112	149	224
3"	115	173	230	346
4"	198	298	397	595
6"	450	675	900	1351
8"	780	1169	1559	2339
10"	1229	1843	2458	3687
12"	1763	2644	3525	5288

Specifications

The Double Check Detector Backflow Prevention Assembly shall be certified to NSF/ANSI/CAN 61, ASSE® Listed 1048, and supplied with full port gate valves. The main body and access cover shall be epoxy coated ductile iron (ASTM A 536), the seat ring and check valve shall be Noryl™, the stem shall be stainless steel (ASTM A 276) and the seat disc elastomers shall be EPDM. The first and second check valves shall be accessible for maintenance without removing the device from the line. The Double Check Detector Backflow Prevention Assembly shall be a ZURN WILKINS Model 350DA.

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Documents / Resources

	<p>ZURN 350DA Double Check Detector [pdf] Instruction Manual Model 350DA, Model 350ADA, 350DA Double Check Detector, 350DA, Double Check Detector, Check Detector, Detector</p>
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References

- [ZURN Engineered Water Solutions | Zurn](#)