



Model 475MS/475VMS

Reduced Pressure Principle Assembly with Integral Relief Valve Monitor Switch

Application

Ideal where Lead-Free* valves are required. Designed for installation on potable water lines to protect against both backsiphonage and backpressure of contaminated water into the potable water supply. Assembly shall provide protection where a potential health hazard exists. In the event of a backflow condition, the relief valve closes an electrical contact on the MS switch, signaling that a possible relief valve discharge may be occurring. The 475MS is ideal for use in mechanical rooms, basements and enclosures where undetected relief valve discharge could potentially cause water damage.



LEAD FREE



Standards Compliance

- ASSE® Listed 1013 (4" thru 8")
- AWWA Compliant C511, and C550
- CSA® Certified (4" & 6")
- UL® Classified
- C-UL® Classified
- FM® Approved (4" thru 8")
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California
- Certified to NSF/ANSI 372* by IAPMO R&T
*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

Materials

Main valve body	Ductile Iron ASTM A 536 Grade 4
Access covers	Ductile Iron ASTM A 536 Grade 4
Coatings	FDA Approved fusion epoxy finish
Internals	Stainless steel, 300 Series NORYL™, NSF Listed
Fasteners	Stainless Steel, 300 Series
Elastomers	EPDM (FDA approved) Buna Nitrile (FDA approved)
Polymers	NORYL™, NSF Listed
Springs	Stainless Steel, 300 Series
Sensing line	Stainless Steel, braided hose
Switch cover	Nylon, UV resistant, glass filled

Options

(Suffixes can be combined)

- with NRS shut-off valves (standard)
- FSC - with epoxy coated wye type strainer (flanged only)
- G - with groove end gate valves
- FG - with flanged inlet gate connection and grooved outlet gate connection
- L - less shut-off valves (grooved body connections)
- OSY - with OS & Y gate valves
- V - vertical flow up configuration
- BG - with grooved end butterfly valves with integral supervisory switches
- BF - with flanged end butterfly valves with integral supervisory switches
- PI - with Post Indicator Gate Valve

Accessories

- Air gap (see spec sheet BF-AG)
- Repair kit (rubber only)
- Thermal expansion tank (Model XT)
- Valve setter (Model FLS or MJS or MJFS)
- Gate valve tamper switch (OSY-40)
- Electronic Solenoid Timer (Model EST)
- QT-SET Quick Test Fitting Set

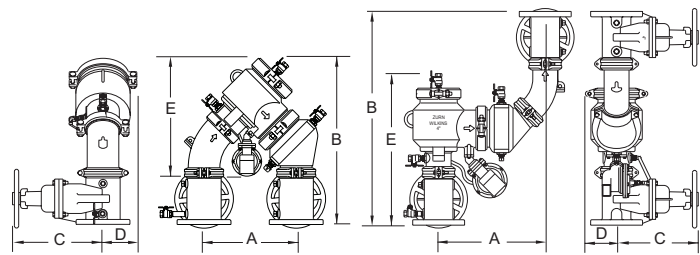
Features

Sizes:	4", 6", 8", 10"	175 PSI
Maximum working water pressure		140°F
Maximum working water temperature		350 PSI
Hydrostatic test pressure		AWWA C606-87
End connections (Grooved for steel pipe)		ANSI B16.1
(Flanged)		Class 125
Switch contact rating		0.4A @ 24VAC

Completely sealed proximity switch factory installed. Supplied with normally open contacts, weather resistant housing & wiring leads. Ready for immediate installation to appropriate electrical circuit.

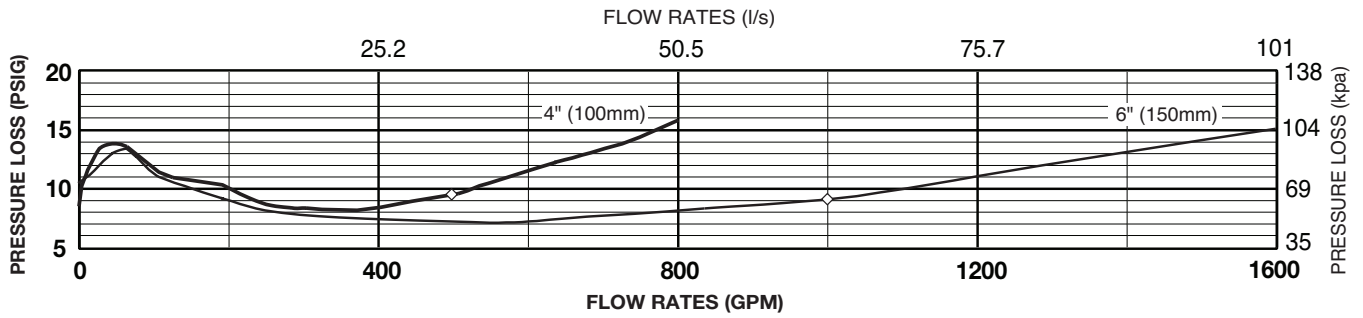
Dimensions & Weights (do not include pkg.)

MODELS 475MS & 475VMS SIZE	WEIGHT													
	LESS SHUTOFF VALVES		WITH NRS GATE (GXF)		WITH NRS GATE (GXG)		WITH OS&Y GATES (GXF)		WITH OS&Y GATES (GXG)		WITH BFLY VALVES (GXF)		WITH BFLY VALVES (GXG)	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
4"	97	44	277	126	257	117	287	130	263	119	167	76	145	66
6"	171	78	455	206	425	193	471	214	449	204	275	125	245	111
8"	405	184	857	389	659	299	881	400	827	375	595	270	549	249
10"	423	192	1051	477	999	453	1097	498	1039	471	697	316	639	290

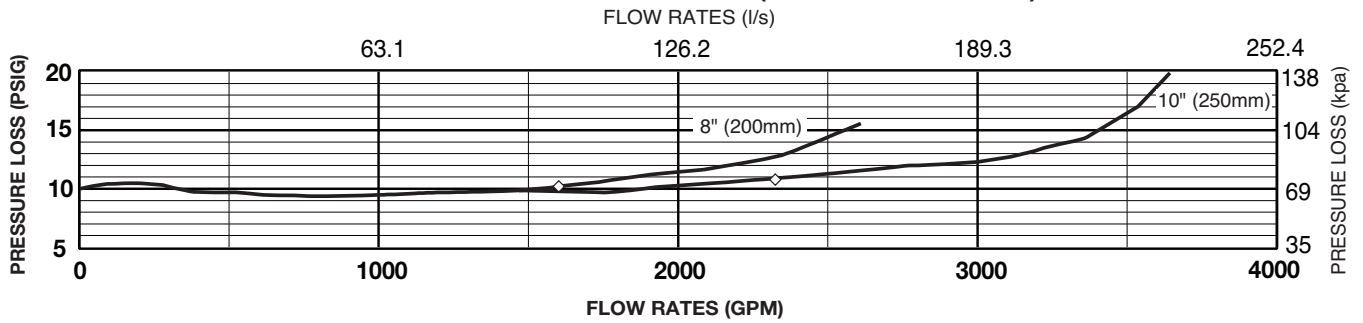


MODELS 475MS & 475VMS SIZE	DIMENSION (approximate)																					
	A		B WITH GATE VALVES		B WITH BUTTERFLY VALVES		B LESS GATE VALVES		C OS&Y OPEN		C OS&Y CLOSED		C NRS GATES		C WITH BUTTERFLY VALVES		D		E		E WITH BUTTERFLY VALVES	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
4" 475	18 5/16	465	30	762	27 5/8	702	21	533	22 3/4	578	18 1/4	464	14 3/4	375	9	229	5	127	23 1/4	591	23 1/4	591
4" 475V	18 15/16	481	36 1/2	907	31 3/4	807	18 1/2	470	22 3/4	578	18 1/4	464	14 3/4	375	9	229	5	127	21	533	18 5/8	473
6" 475	18 11/16	475	35 1/2	902	32	813	25	635	30 1/8	765	23 3/4	603	19	483	10 1/4	260	6	152	26	660	26	660
6" 475V	21	533	42	1607	35	889	21	533	30 1/8	765	23 3/4	603	19	483	10 1/4	260	6	152	22	559	18 1/2	470
8" 475	29	737	46	1168	42 7/16	1078	34 7/16	875	37 3/4	959	29 1/4	743	22 1/2	572	12	305	10	254	33 1/4	845	33 1/4	845
8" 475V	30 5/16	770	53 1/2	1359	46 5/16	1176	30 5/16	770	37 3/4	959	29 1/4	743	22 1/2	572	12	305	10	254	37 7/8	962	34 3/8	873
10" 475	29	737	47 1/2	1207	44 7/16	1129	34 7/16	875	45 3/4	1162	35 3/8	899	26 1/2	673	13	330	10	254	33 1/4	845	33 1/4	845
10" 475V	30 5/16	770	56 1/2	1435	50 5/16	1278	30 5/16	770	45 3/4	1162	35 3/8	899	26 1/2	673	13	330	10	254	39 3/8	1000	34 3/8	873

MODEL 475MS & 475VMS 4" & 6" (STANDARD & METRIC)



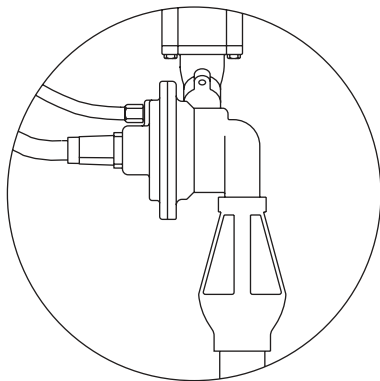
MODEL 475MS & 475VMS 8" & 10" (STANDARD & METRIC)



Typical Installation

Local codes shall govern installation requirements. To be installed in accordance with the manufacturers' instructions and the latest edition of the Uniform Plumbing Code. Unless otherwise specified, the assembly shall be mounted 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.

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



Switch Operation

In the event of a backflow condition, the relief valve closes an electrical contact on the MS switch, signaling that a possible relief valve discharge may be occurring. The 475MS is ideal for use in mechanical rooms, basements and enclosures where undetected relief valve discharge could potentially cause water damage. A drain Must still be provided.

Relief Valve discharge port:
 2 1/2" - 6" - 2.75 sq. in.
 8" - 10" - 3.69 sq. in.

Specifications

The Reduced Pressure Principle Backflow Preventer shall be certified to NSF/ANSI 372, ASSE® Listed 1013, and supplied with full port gate valves and an integral relief valve monitor switch. The main body and access covers shall be epoxy coated ductile iron (ASTM A 536 Grade 4), 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. Center stem guided design shall incorporate two torsion springs to bias the check in the closed position. The first and second checks shall be accessible for maintenance without removing the relief valve or the entire device from the line. If installed indoors, the installation shall be supplied with an air gap adapter. The Reduced Pressure Principle Backflow Preventer shall be a ZURN WILKINS Model 475MS or 475VMS.