

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 back-flow 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.

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

Features

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

Dimensions & Weights (do not include pkg.)

MDL 475& 475V SIZE	DIMENSION (approximate)														WEIGHT							
	A		B WITH GATE VALVES		B LESS GATE VALVES		C OS&Y OPEN		C OS&Y CLOSED		C NRS GATES		D		E		LESS GATE VALVES		NRS GATE VALVES		OS&Y GATE VALVES	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	kg	lbs.	kg
4" 475	18 5/16	465	30	762	21	533	22 3/4	578	18 1/4	464	14 3/4	375	5	127	23 1/4	591	97	44	277	126	287	130
475V	18 15/16	481	36 1/2	927	18 1/2	470	22 3/4	578	18 1/4	464	14 3/4	375	5	127	21	533	97	44	277	126	287	130
6" 475	18 11/16	475	35 1/2	902	25	635	30 1/8	765	23 3/4	603	19	483	6	152	26	660	171	78	455	207	471	214
475V	21	533	42	1607	21	533	30 1/8	765	23 3/4	603	19	483	6	152	22	559	171	78	455	207	471	214
8" 475	29	737	46	1168	34 7/16	875	37 3/4	959	29 1/4	743	22 1/2	572	10	254	33 1/4	845	405	184	857	389	881	400
475V	30 5/16	770	53 1/2	1359	30 5/16	770	37 3/4	959	29 1/4	743	22 1/2	572	10	254	37 7/8	962	405	184	857	389	881	400
10" 475	29	737	47 1/2	1207	34 7/16	875	45 3/4	1162	35 3/8	899	26 1/2	673	10	254	33 1/4	845	423	192	1051	477	1097	498
475V	30 5/16	770	56 1/2	1435	30 5/16	770	45 3/4	1162	35 3/8	899	26 1/2	673	10	254	39 3/8	1000	423	192	1051	477	1097	498



Options

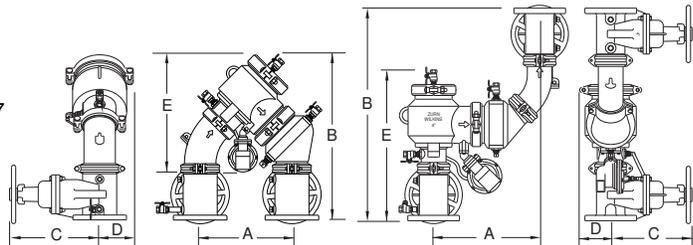
(Suffixes can be combined)

- with NRS shut-off valves (standard)
- FS - with cast iron wye type strainer (flanged only)
- 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
- BGVIC - with grooved end butterfly valves with integral supervisory switches
- PI - with Post Indicator Gate Valve (4"-10")

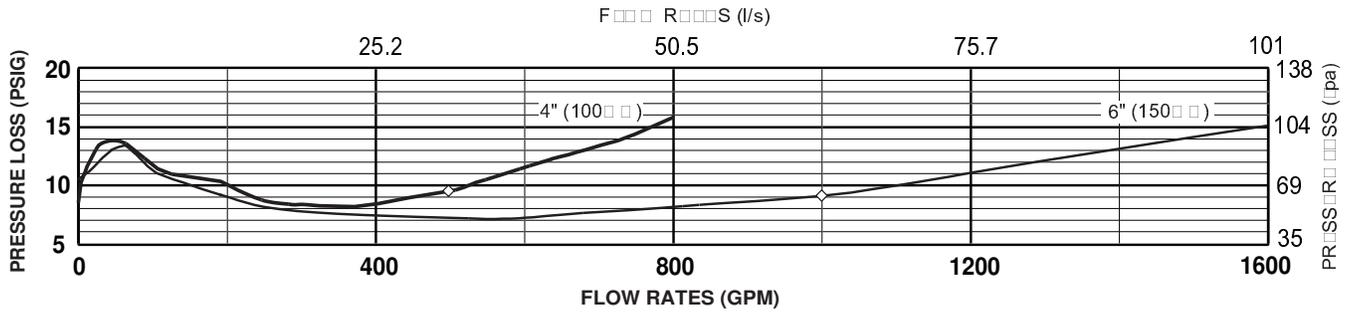
Accessories

- 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

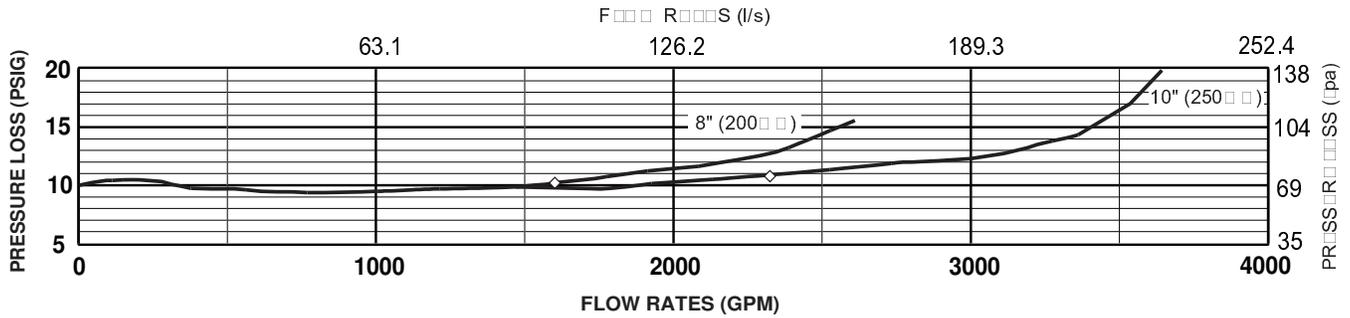
Completely sealed proximity switch factory installed. Supplied with normally open contacts, weather resistant housing & wiring leads. Ready for immediate installation to appropriate electrical circuit.



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



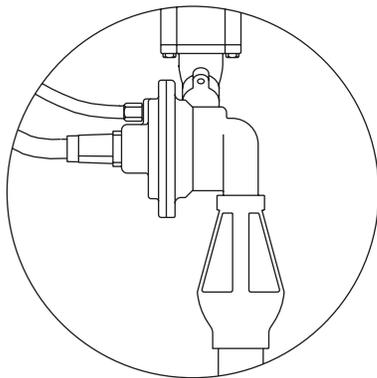
MODEL 475MS & 475VMS 8" & 10" (STANDARD & METRIC)



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.