



# 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.



### Standards Compliance

- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California
- ASSE® Listed 1013
- AWWA Compliant C550
- CSA® Certified
- UL® Classified
- C-UL® Classified
- FM® Approved (4" thru 8")
- 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: 2 1/2", 3"

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
Switch contact rating	0.4A @ 24VAC

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

### Options

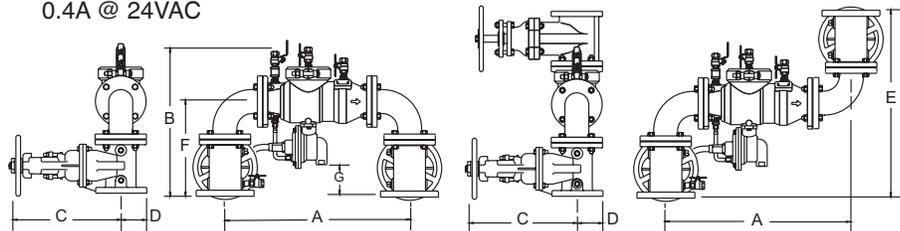
(Suffixes can be combined)

- 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

### 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

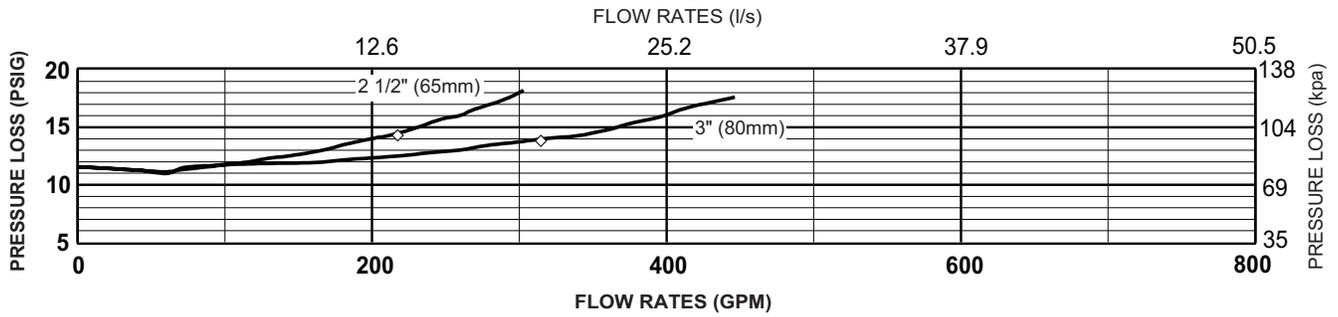
Completely sealed proximity switch factory installed. Supplied with normally open contacts, weather resistant housing & wiring leads. Ready for immediate installation to appropriate electrical circuit.



### Dimensions & Weights (do not include pkg.)

MODEL 475MS & 475VMS SIZE	DIMENSIONS (approximate)														WEIGHT										
	A		B		C OS&C OPEN		C OS&Y CLOSED		C NRS GATE		D		E		F		G		WITHOUT GATE VALVES		WITH NRS GATE VALVES		WITH OS&Y GATE VALVES		
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	kg	lbs.	kg	
2 1/2	65	26	660	20 1/2	521	16 3/8	416	13 7/8	352	11 3/8	289	3 3/4	95	26 1/8	664	13 1/8	333	4 1/8	105	87	39.5	196	88.9	205	93.1
3	80	27	686	21 1/2	546	18 7/8	479	15 5/8	397	12 3/8	314	3 3/4	95	27 1/8	689	13 9/16	345	4 9/16	116	112	50.8	234	106.2	240	109

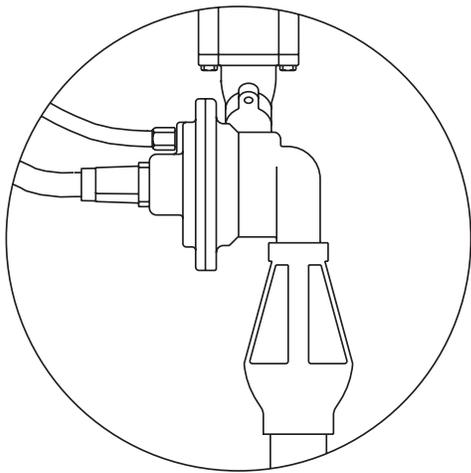
**MODEL 475MS & 475VMS 2 1/2" & 3" (STANDARD & METRIC)**



**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.

**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.