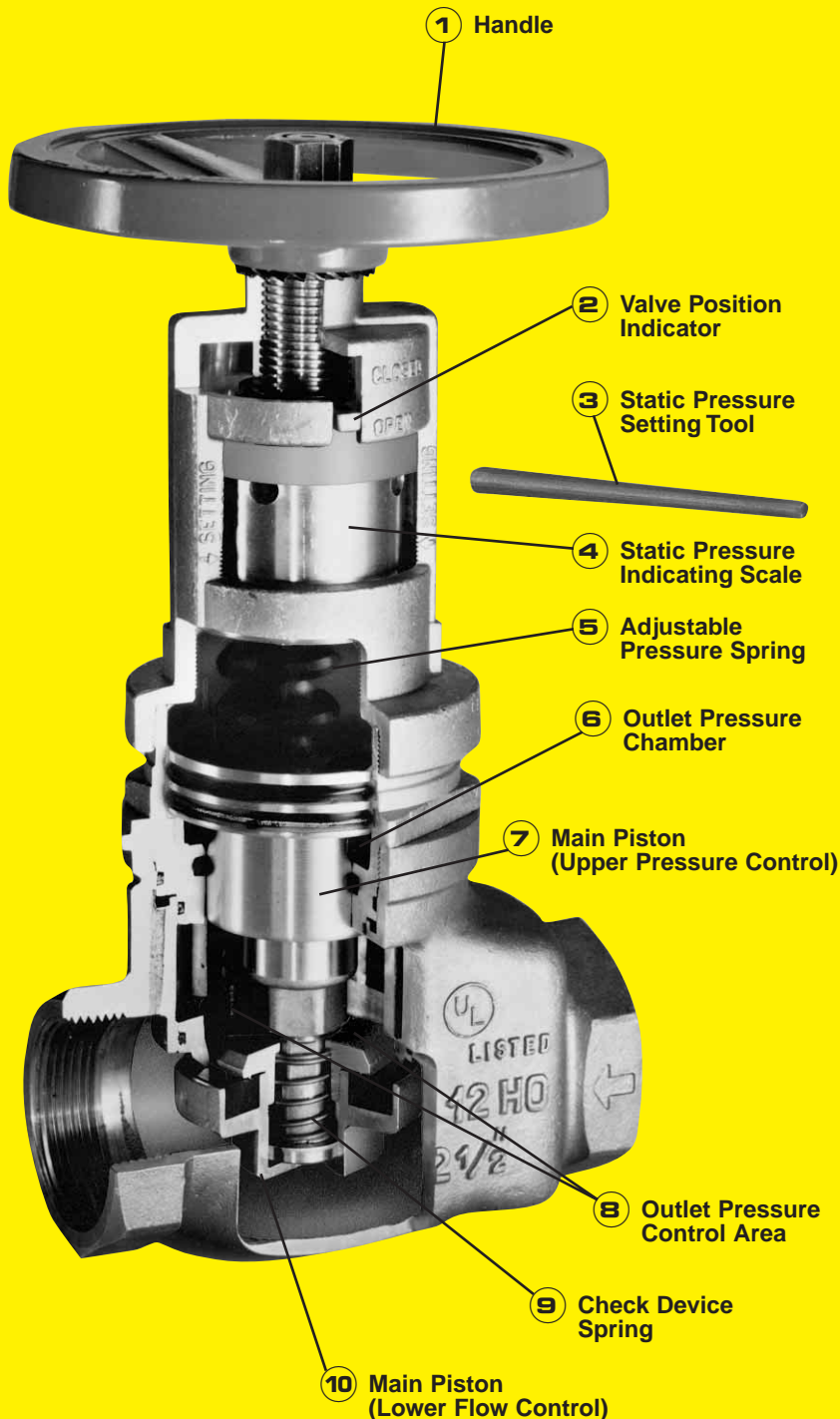




FIELD ADJUSTABLE REG-U-MATIC™ PRESSURE REGULATING VALVES

TYPICAL 4033-4038 SERIES PRESSURE REGULATING VALVE

(4036 SHOWN)



GENERAL INFORMATION

- A “Reg-U-Matic” pressure regulating valve is used when supply pressure is excessive.
- “Static Pressure” means non-flowing pressure.
- “Residual Pressure” means flowing pressure.
- “Reg-U-Matic” pressure regulating valves can be installed horizontally or vertically.
- Static pressure at valve inlet must be a minimum of 30 PSI/2 bars above static pressure required at valve outlet.
- Pressure at valve outlet will decrease when flow occurs. The amount of decrease is determined by the volume of flow.
- “In-Line” installation is a system arrangement in which a valve is normally open (F x F valve).
- In an “In-Line” installation, when outlet static pressure reaches the regulated pressure, the valve seat will close and will remain closed until flow occurs. The volume of flow determines the degree of seat opening.
- “In-Line” installation of a “Reg-U-Matic” valve creates a closed system. A pressure relief valve must be installed downstream of valve discharge to eliminate excessive pressure build-up. Pressure relief valve should be set 10-15 PSI/0.6-1 bar above valve outlet static pressure.
- “End-of-Line” installation is a system arrangement in which the valve is normally closed and has a male hose thread outlet. (F x M valve).
- The performance of “Reg-U-Matic” pressure regulating valves may be evaluated by using charts provided; however, a gauge should be installed downstream of the valve to ensure accuracy.
- When inlet pressure falls below preselected outlet static pressure, the valve seat closes, acting as a “Checking Device”.
- After completion of installation, the system should be slowly filled with water, with the highest point open until all air has been forced out of the system.
- “Reg-U-Matic” pressure regulating valves are automatic valves; debris is the largest single cause of valve malfunction. Therefore it is imperative all debris be flushed from the system before it is placed in service.
- Periodic flow tests are recommended to allow “Reg-U-Matic” valves to open and reset themselves.

Call Potter-Roemer for current listings and approvals. Dimensions are subject to manufacturer's tolerance and change without notice. We assume no responsibility for use of superseded or void data.

GENERAL INFORMATION AND OPERATING CONDITIONS

GENERAL INFORMATION for 4033-4038

- A. Set desired static outlet pressure (60-175 PSI/4.1-12 bars) on pressure indicating scale using special setting tool.
- B. The outlet pressure is controlled by the adjustable pressure spring. When outlet pressure reaches the setting, upward force in outlet pressure chamber closes the main piston.
- C. The static outlet pressure is not affected by changes in the inlet pressure. Inlet pressure exerts force on both upper and lower portion of main piston; since the two surfaces are equal, no changes result.
- D. When outlet flow occurs, the pressure lessens in the outlet pressure chamber allowing the main piston to open, permitting flow from inlet side.
- E. The amount of flow determines the degree of opening. The increase of flow, or demand, decreases outlet pressure causing the main piston to open further. Under full-flow condition, the main piston is fully open.
- F. The decrease of flow, or demand, increases the outlet pressure, causing the main piston to close. Under no-flow condition, the main piston is fully closed when outlet pressure reaches static outlet setting.
- G. Loss of inlet pressure will activate the check device preventing back flow.

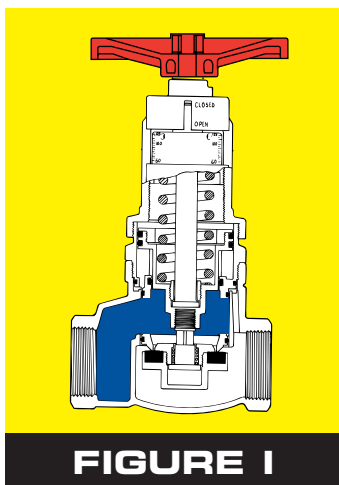


FIGURE I

OPERATING CONDITIONS

FIGURE I VALVE HANDWHEEL IN CLOSED POSITION.

No water on outlet side of valve or in outlet pressure chamber.

FIGURE II VALVE IN FULL-DEMAND CONDITION. HANDWHEEL IN OPEN POSITION.

Lower flow control fully open. Water pressure in outlet pressure chamber less than pressure exerted by adjustable spring. In this position the only loss of pressure through the valve is that of a straight pattern globe valve.

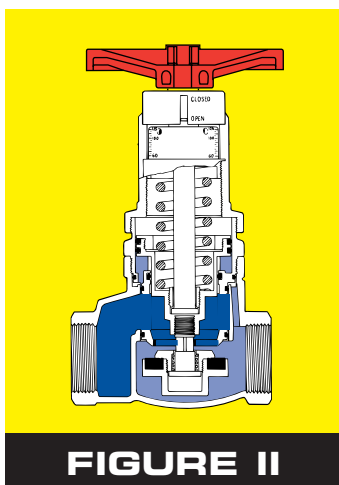


FIGURE II

FIGURE III VALVE IN LESSER-DEMAND CONDITION.

Water pressure in outlet pressure chamber exerting upward force on main piston counteracting pressure from adjustable spring causing partial closure of lower flow control. The degree of closure is dependent on the flow.

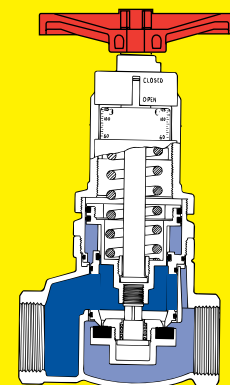


FIGURE III

FIGURE IV VALVE IN NO-DEMAND CONDITION.

Water pressure in outlet pressure chamber has counteracted pressure from adjustable spring causing closure of lower flow control. Static pressure outlet has reached static pressure setting. Valve will remain in this position until flow occurs causing seat to open.

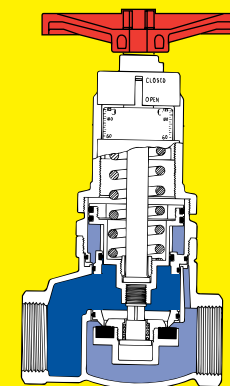


FIGURE IV

FIGURE V VALVE IN NO-DEMAND CONDITION.

Loss of inlet pressure caused checking device to close. Valve will remain in this position until inlet pressure surpasses outlet pressure or demand occurs.

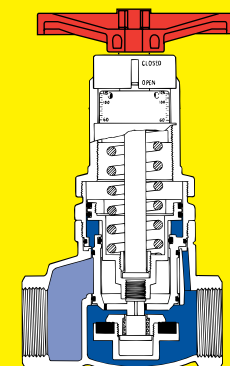
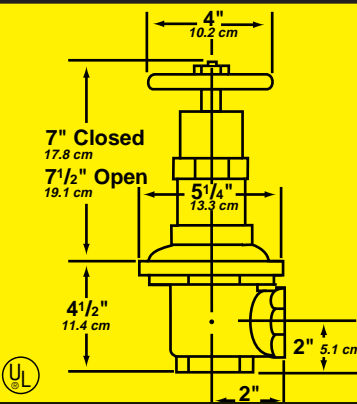


FIGURE V

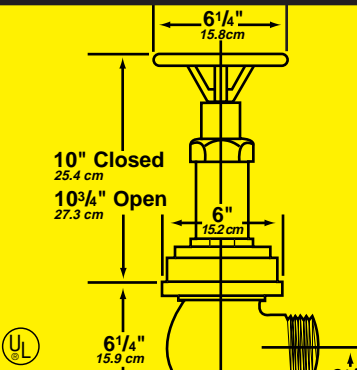
FIELD ADJUSTABLE REG-U-MATIC™ PRESSURE REGULATING VALVES

FEATURES AND DATA

- Positive pressure control under residual and static condition.
- Positive pressure control up to 400 PSI/27.5 bars.
- Outlet pressure is set by the adjustable indicating scale.
- Providing inlet pressure is higher, valve will maintain selected outlet pressure regardless of inlet pressure changes.
- Automatic balanced piston, adjustable spring-loaded design.
- Under low residual supply pressure condition, valve will fully open.
- Complete piping system can be hydrostatically tested to 400 PSI/27.5 bars without damage to valve.
- Maximum back pressure does not damage valve components.
- Tamper-proof valve pressure adjustment.
- Designed for high-pressure sprinkler, standpipe and combined fire protection systems.
- Listed by Underwriters Laboratories up to 400 PSI/27.5 bars pressure.
- Listed by Underwriters Laboratories as a checking device.

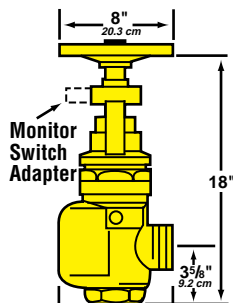


4033 & 4035



4036 & 4038

Model 4033



ANGLE

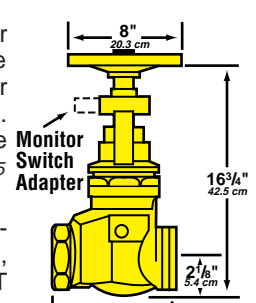
2 1/2" / 6.4 cm VALVE

FUNCTION: Used as a control and regulating valve for fire service end-of-line application on high-pressure sprinkler, standpipe and combined system. Indicator bonnet shows whether valve is open or closed. Adjustable indicating scale permits easy field setting. The valve is used to regulate inlet pressure to 400 PSI/27.5 bars.

REGULARLY FURNISHED: Brass valve with non-rising stem, internal parts of brass and stainless steel, red alloy handwheel, female NPT inlet and male NST outlet.

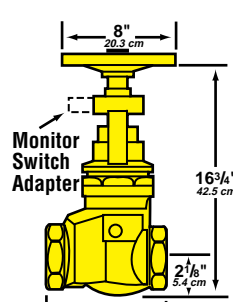
OPTION: -MSA1 Monitor Switch Adapter, Tamper-Proof
-MSA2 Fork Type

Model 4035



STRAIGHT

Model 4036



STRAIGHT

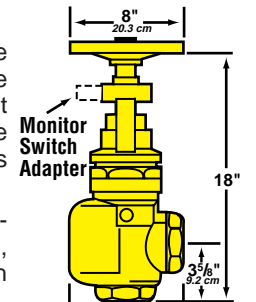
2 1/2" / 6.4 cm VALVE

FUNCTION: Used as a zone control valve for in-line application to regulate high-pressure sprinkler, standpipe and combined fire protection systems. Indicator bonnet shows whether valve is opened or closed. Adjustable indicating scale permits easy field setting. The valve is used to regulate inlet pressure to 400 PSI/27.5 bars.

REGULARLY FURNISHED: Brass valve with non-rising stem, internal parts of brass and stainless steel, red alloy handwheel, female NPT inlet and outlet with monitor switch adapter.

OPTION: -MSA1 Monitor Switch Adapter, Tamper-Proof
-MSA2 Fork Type

Model 4038



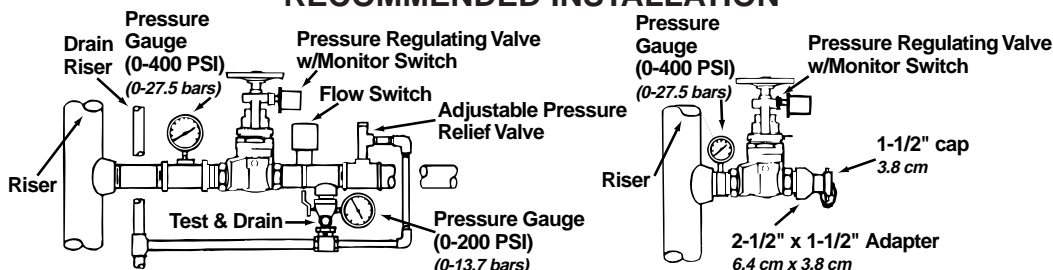
ANGLE

ORDERING INFORMATION

- Select type by model number.
- Select hose thread for male outlet.
- For factory setting of outlet pressure advise static pressure required.

PERFORMANCE CHARTS AVAILABLE,
SEE APPENDIX PAGE IV THRU X

RECOMMENDED INSTALLATION



ADJUSTABLE REG-U-MATIC™ PRESSURE TRU REGULATING VALVE

POTTER-ROEMER



A Division of Smith Industries, Inc.

FEATURES AND DATA

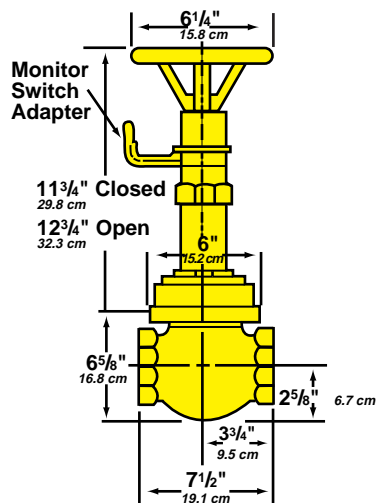
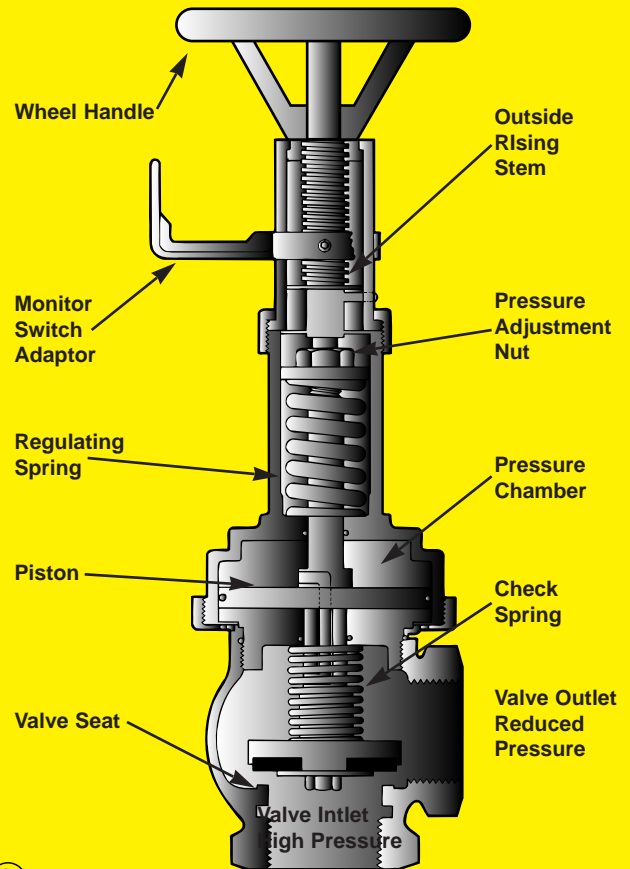
- Positive pressure control under residual and static conditions.
- Positive pressure control to 400 PSI/27.5 bars inlet.
- Outlet pressure can be set at factory or job site.
- Automatic piston, adjustable spring-loaded design.
- Listed by Underwriters Laboratories up to 400 PSI/27.5 bars rated pressure.
- Listed by Underwriters Laboratories as a checking device.
- Under low residual supply pressure valve fully opens.
- Complete piping system can be hydrostatically tested to 400 PSI/27.5 bars without damage to valve.
- Maximum valve pressure does not damage valve components.
- Tamper-proof pressure adjustment.
- Monitor switch adaptor to provide valve supervision.
- Designed for high pressure sprinkler, standpipe and combined fire protection systems.

ORDERING INFORMATION

- Select type and size by model number.
- Select hose thread for male outlets.
- For factory settings of outlet pressure advise:
 - 1) Floor name and/or number.
 - 2) Inlet pressure.
 - 3) Required flow at valve outlet GPM/lpm.
 - 4) Valve outlet static pressure.
 - 5) Valve outlet residual pressure.

PERFORMANCE CHARTS AVAILABLE,
SEE APPENDIX PAGE XI THRU XV

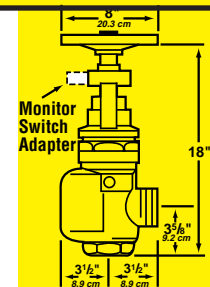
TYPICAL 4005-4032 SERIES PRESSURE REGULATING VALVES (4032 SHOWN)



2 1/2" / 6.4 cm STRAIGHT WITH INDICATOR BONNET

FUNCTION: Used as a zone control valve for in-line application to regulate high-pressure sprinkler, standpipe and combined fire protection systems. Indicator bonnet shows whether valve is open or closed. The valve is used to regulate inlet pressure to 400 PSI/27.5 bars.

REGULARLY FURNISHED: Cast brass valve with rising stem. Internal parts of brass and stainless steel, red aluminum handwheel, female NPT inlet and outlet with monitor switch adaptor.



4005



ADJUSTABLE REG-U-MATIC™ PRESSURE TRU ANGLE REGULATING VALVES

1 1/2" / 3.8cm ANGLE



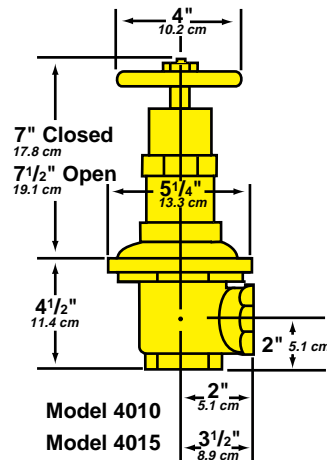
FUNCTION: Used as a hose station control and regulating valve for end-of-line application on high-pressure sprinkler, standpipe and combined systems. The valve is used to regulate inlet pressure to 400 PSI/27.5 bars.

REGULARLY FURNISHED: Cast brass valve with inside screw rising stem, internal parts of brass and stainless steel. Red aluminum handwheel.

Model

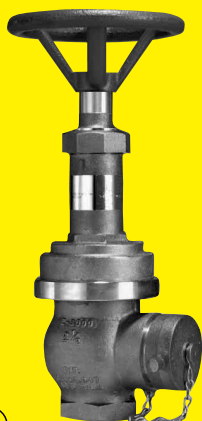
- 4010 . . . 1 1/2" / 3.8 cm Female NPT inlet and outlet.
- 4015 . . . 1 1/2" / 3.8 cm Female NPT inlet x male hose thread outlet.

For Use As Hose Valve Only



4010 & 4015

2 1/2" / 6.4 cm ANGLE



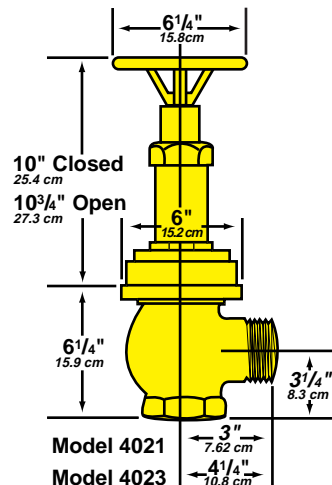
FUNCTION: Used as a control and regulating valve for fire service end-of-line application on high-pressure sprinkler, standpipe and combined systems. The valve is used to regulate inlet pressure to 400 PSI/27.5 bars.

REGULARLY FURNISHED: Cast brass valve with inside screw rising stem, internal parts of brass and stainless steel. Red aluminum handwheel.

Model

- 4021 . . . 2 1/2" / 6.4 cm Female NPT inlet and outlet.
- 4023 . . . 2 1/2" / 6.4 cm Female NPT inlet x male hose thread outlet.

OPTION: -MSA3 Monitor Switch Adapter - Fork Type



4021 & 4023

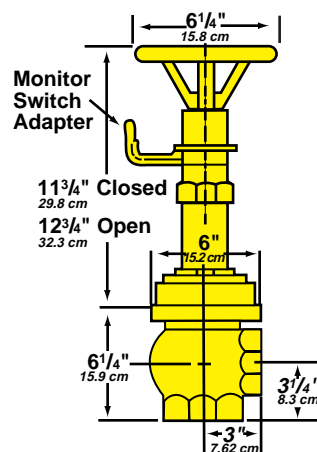
2 1/2" / 6.4 cm ANGLE WITH INDICATOR BONNET



FUNCTION: Used as a zone control valve for in-line application to regulate high-pressure sprinkler, standpipe and combined systems. Indicator bonnet shows whether valve is open or closed. The valve is used to regulate inlet pressures to 400 PSI/27.5 bars.

REGULARLY FURNISHED: Cast brass valve with rising stem, internal parts of brass and stainless steel. Red aluminum handwheel. Female NPT inlet and outlet with monitor switch adapter.

OPTION: -MS Monitor Switch



4032

NON-ADJUSTABLE REG-U-MATIC™ PRESSURE REGULATING VALVES

POTTER-ROEMER



A Division of Smith Industries, Inc.

FEATURES AND DATA

- Selected pressure control under residual and static conditions.
- Selected pressure control for 20 to 400 PSI/1.3 to 27.5 bars.
- Listed by Underwriters Laboratories up to 400 PSI/27.5 bars pressure.
- Listed by Underwriters Laboratories as a checking device.
- Hydraulic piston design.
- Under low residual supply pressure valve fully opens.
- Complete piping system can be hydrostatically tested to 400 PSI/27.5 bars without damage to valve.
- Maximum back pressure does not damage valve components.
- Tamper Proof Pressures.
- Monitor Switch Adapter to provide valve supervision.
- Designed for high-pressure sprinkler, standpipe and combined fire protection systems.

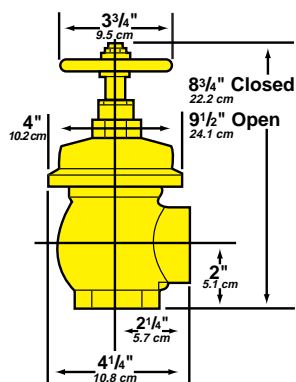
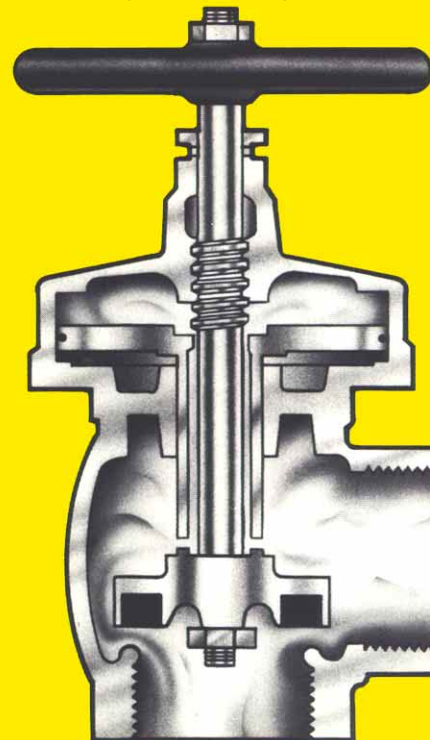
ORDERING INFORMATION

- Select type and size by model number.
- Select required pressure range.
- Select hose thread for male outlets.
- Optional Finish: -C Rough Chrome Plated.
- For factory selection of proper application, advise:
 - 1) Floor name and/or number.
 - 2) Valve inlet PSI/bars Residual.
 - 3) GPM/lpm Flow requirement.
 - 4) Valve outlet PSI/bars requirement.

VALVE SELECTION CHARTS AVAILABLE
SEE APPENDIX PAGE XVI THRU XIX

1½" / 3.8 cm VALVE LISTED UP TO 300 PSI / 20.6 bars PRESSURE

TYPICAL NON-ADJUSTABLE PRESSURE REGULATING VALVE (4050 SHOWN)

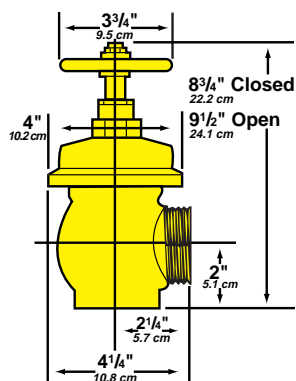


1½" / 3.8cm FEMALE x FEMALE

FUNCTION: Used as a hose station control to regulate inlet pressure to 300 PSI/20.6 bars. Also may be used as a zone control valve to regulate high-pressure sprinkler, standpipe and combined systems with flow up to 250 GPM/946.3 lpm.

REGULARLY FURNISHED: Cast brass valve with rising stem, internal parts of brass and stainless steel, aluminum handwheel. Female NPT inlet and outlet with visual indicator.

OPTION: -MSA4 Monitor Switch Adapter - Fork Type

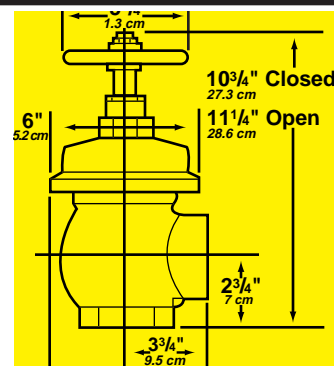


1½" / 3.8cm FEMALE x MALE

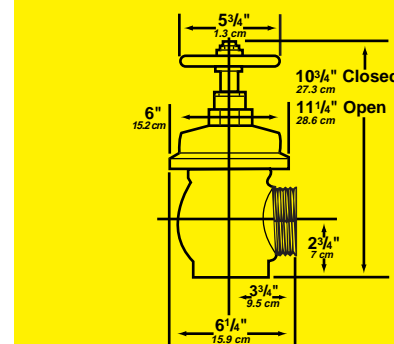
FUNCTION: Used as a hose station to regulate inlet pressure to 300 PSI/20.6 bars.

REGULARLY FURNISHED: Cast brass valve with rising stem, internal parts of brass and stainless steel, aluminum handwheel. Female NPT inlet x male hose thread outlet.

OPTION: -MSA4 Monitor Switch Adapter - Fork Type



4042



4045

NOTE: ALWAYS INDICATE HOSE THREAD REQUIREMENTS

All dimensions in English and Metric.

NON-ADJUSTABLE REG-U-MATIC™ PRESSURE REGULATING VALVES PRESSURE RELIEF VALVE

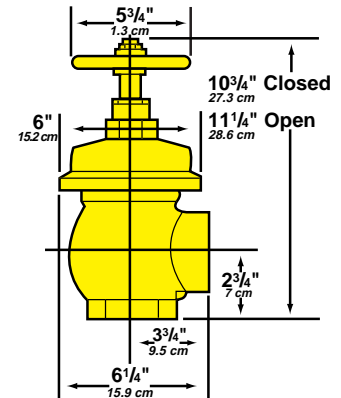


2 1/2" / 6.4 cm FEMALE x FEMALE

FUNCTION: Used as a zone control valve for in-line application to regulate high-pressure sprinkler, standpipe and combined systems. The valve is used to regulate inlet pressure to 400 PSI/27.5 bars.

REGULARLY FURNISHED: Cast brass valve with rising stem and visual indicator. Internal parts of brass and stainless steel, aluminum handwheel. Female NPT inlet and outlet.

OPTION: -MSA5 Monitor Switch Adapter - Fork Type



4050

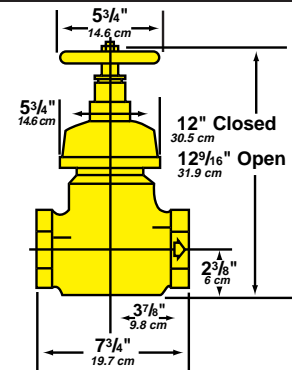


2 1/2" / 6.4 cm FEMALE x FEMALE

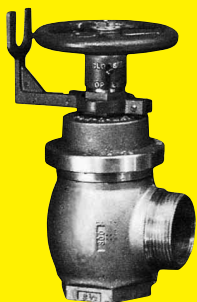
FUNCTION: Used as a zone control valve for in-line application to regulate high-pressure sprinkler, standpipe and combined systems. The valve is used to regulate inlet pressure to 400 PSI/27.5 bars.

REGULARLY FURNISHED: Cast brass valve with rising stem and visual indicator. Internal parts of brass and stainless steel, aluminum handwheel. Female NPT inlet and outlet.

OPTION: -MSA5 Monitor Switch Adapter - Fork Type



4052

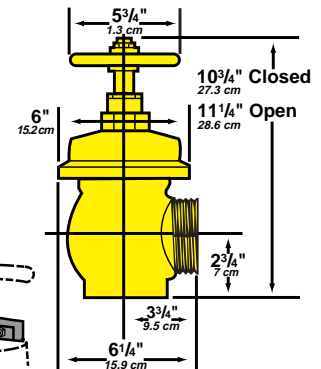
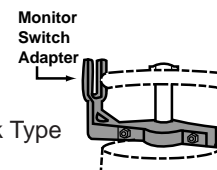


2 1/2" / 6.4 cm FEMALE x MALE

FUNCTION: Used as a control and regulating valve for fire service end-of-line application on high-pressure sprinkler, standpipe and combined systems. The valve is used to regulate inlet pressure to 400 PSI/27.5 bars.

REGULARLY FURNISHED: Cast brass valve with rising stem, internal parts of brass and stainless steel, aluminum handwheel. Female NPT inlet x male hose thread outlet.

OPTION: -MSA5 Monitor Switch Adapter - Fork Type



4053

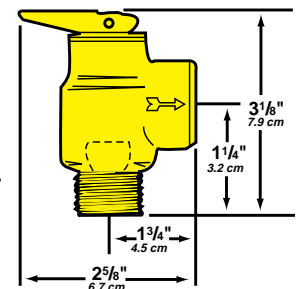
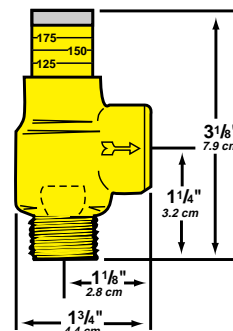
AUTOMATIC FIRE SPRINKLER SYSTEM PRESSURE RELIEF VALVE

FUNCTION: Used downstream from a pressure regulating valve to protect system components from high pressure surges.

REGULARLY FURNISHED: Cast brass valve with 3/4" / 1.9 cm NPT male inlet x 3/4" / 1.9 cm NPT female outlet.

PRESSURE SETTING AVAILABLE: 15 PSI through 175 PSI / 1 through 12 bars

SPECIFY: Adjustable or fixed where applicable



Strip in
Previous
Page 4-6
4059

4058 & 4059