
FIRE PRIORITY DEMAND VALVES (MODELS PDV-S & PDV-E)



1" TO 6" FOR DOMESTIC FIRE SPRINKLER SYSTEMS

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Overview

The Aquatech Pressmain Fire Priority Valve PDV system consists of a pipeline mounted motorised valve and a wall mounting control panel either our PDV-S Standard or PDV-E Enhanced versions dependent on system requirements. The PDV is ideally suited for combined domestic sprinkler systems designed to BS9251:2021, that utilise the domestic water pressure booster set and break tank for both domestic water supply and fire suppression.

Operation

If the sprinkler system is activated a control signal from the fire sprinkler flow switch is received by the PDV system, the controller then tells the motorised valve to close. This isolates the flow of water into the domestic cold water riser enabling the booster set to pump all the available water to the sprinklers riser. The Enhanced PDV-E system holds the valve closed until manually reset (once the fire brigade has handed the building back to owner).

The valve can also stop the domestic flow when the break tank level gets too low. This allows the minimum tank volume, as recommended by BS9251:2021, to be retained for sprinkler operation.

Valve Specification

The valve is a WRAS approved wafer pattern butterfly type, suitable for fitting between BS4504 PN16 flanges and is available in all sizes 1" to 6". It features an Epoxy coated cast iron body with AISI 316 stainless steel disc, AISI 304 stainless steel stem, EPDM seat.

Technical Data

Operating Temperature: 3°C to 40°C
 Pressure range: 0-16bar
 Electrical supply: 230VAC 1Ph 10A

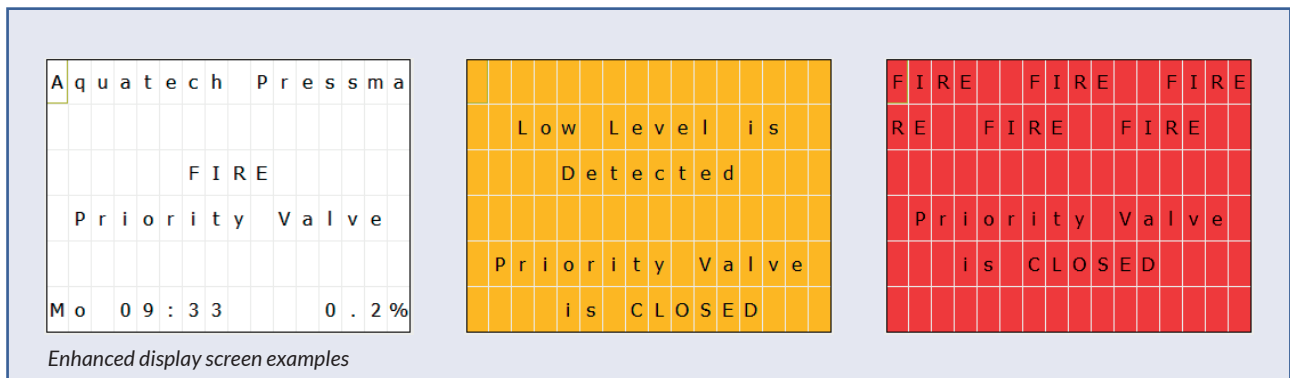
PDV-S Basic features

- Valve with failsafe actuator (integral battery ensures valve closes on power failure)
- Break tank low water level interface with auto-shut down of the domestic cold water supply
- 9 valve sizes available
- Supplied fully pre-wired
- 2m cable length between valve and control panel

PDV-E Enhanced Additional Control Features To Above

- 6 line LCD multi coloured display for status and alarm messages
- Continuous self-test function
- Automated Anti-seize program
- 4 volt-free BMS alarm status outputs
- Aquatech Pressmain REPRESS system preventing hydraulic shock and pipework damage when the valve is reset

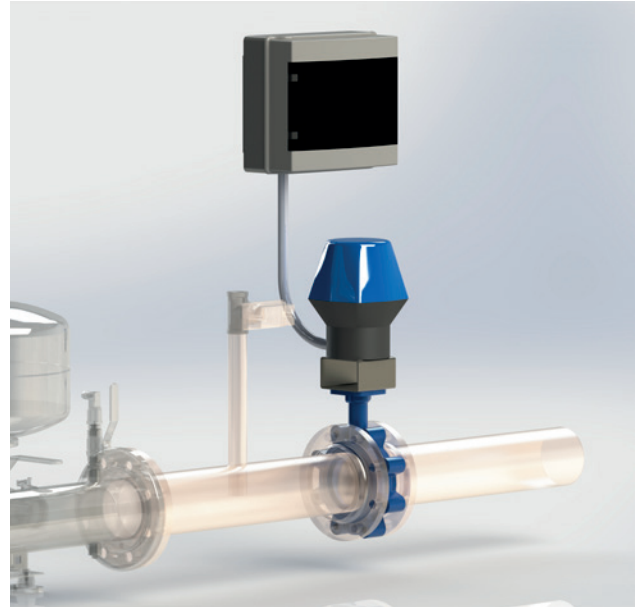
MODEL COMPARISON		
FEATURES	PDV-S	PDV-E
Designed for BS 9251:2021	✓	✓
WRAS Approved Valve	✓	✓
Sprinkler Flow Switch Input	✓	✓
Level Switch Input	✓	✓
Power Available LED	✓	✓
Auto-Close on power failure	✓	✓
Re-Press soft open		✓
Continuous Self Test		✓
Anti-seize program		✓
Valve Position Display		✓
Multi-colour Backlight Display		✓
Alarms in plain English		✓



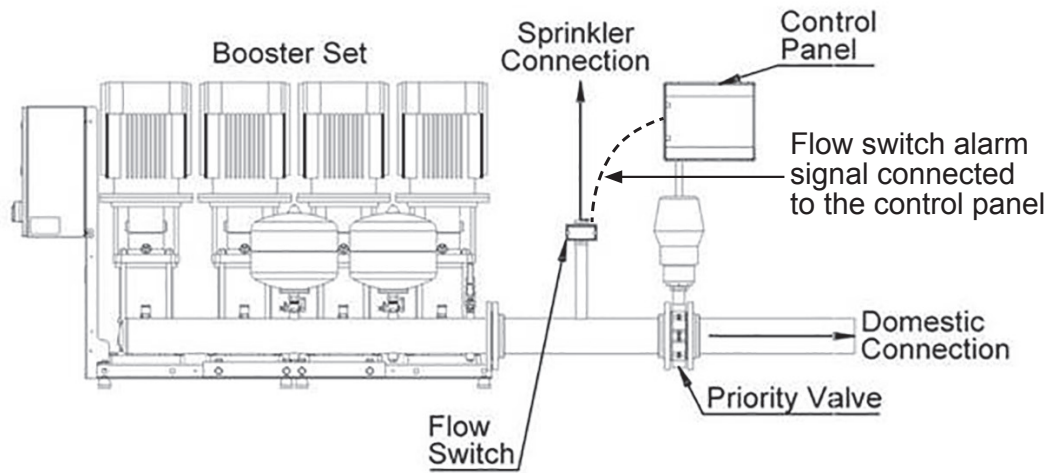
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DIMENSIONS		
Nominal Diameter		Face to face
DN	NPS	mm
25	1"	32
32	1 ¼"	32
40	1 ½"	32
50	2"	43
65	2 ½"	46
80	3"	46
100	4"	52
125	5"	56
150	6"	56



CONNECTION DIAGRAM



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