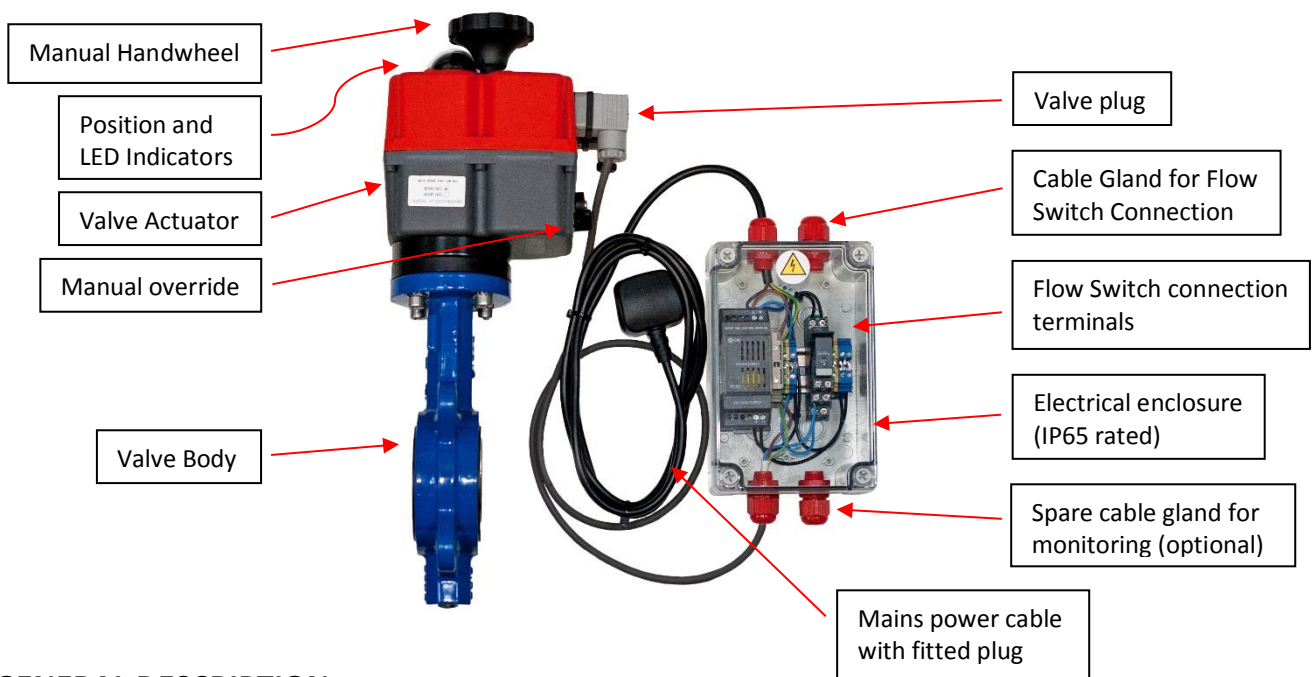


## INSTALLATION & OPERATION INSTRUCTIONS

# PRIORITY DEMAND VALVE (2½” to 6”)



### GENERAL DESCRIPTION

Electrically-operated WRAS-approved valve designed to shut off the domestic water supply in the event of a fire sprinkler activation. Fail-safe as standard means that in the event of a power failure, the fire sprinkler supply will always be prioritised.

IP-rated electrical enclosure with 230VAC mains power supply, transformed to a safe 24VDC for flow switch signal connection (power supply unit includes LED power indicator).

### \*\*\* SAFETY \*\*\*

*THIS VALVE IS DESIGNED AND BUILT ONLY FOR FIRE SPRINKLER SYSTEMS.*

*ELECTRICITY CAN BE DANGEROUS, AND POTENTIALLY LETHAL.*

DO NOT INSTALL this product unless you are satisfied that you have the knowledge and experience to do so. If you are NOT SURE, ASK.

DO NOT OPERATE until you have read and understand the contents of these instructions AND any other instructions which have been supplied.

Users must employ safe working practices when using this equipment. Your attention is drawn to the Health and Safety at Work Act 1974, the latest electrical regulations and any other current, pending or future safety requirements.

This document must be kept with the product for reference purposes. An electronic version is also available to download from our website if further copies are required.

The following safety signs and symbols may be used:



Read instructions before use



Automatic control – may start without warning



Dangerous voltage may be present



General safety information

## INSTALLATION - MECHANICAL

Before you start, CHECK for any damage in transit and advise the sender immediately if this is the case.

CHECK the power supply required, and your power source is safe and appropriate for use.

1. Remove all packing materials. Take care to install and operate the product in a clean, dry and cool environment (ambient temperature 5-40°C).
2. Install the valve between appropriately specified flanges (BS 10 Table D/E, PN6/10/16, ANSI150), in the pipe which supplies the domestic water, before any outlets. Ensure that access is possible for any maintenance or repair requirements; ensure that the manual override lever is accessible, and ensure that the hand-wheel on top of the actuator is free to move.
3. The valve is not directional.
4. Remove the lid from the enclosure; knock out and carefully mark mounting holes in a position which:
  - a. Although the enclosure is IP-rated, is away from possible water spillage;
  - b. can be accessed for testing and maintenance;
  - c. is convenient for mains power supply, connection to the valve and connection to the flow switch.
5. Prior to mounting, double-check that all wiring can be completed.

## INSTALLATION – ELECTRICAL & WIRING

6. VALVE: use the connected DIN plug to connect the appropriate cable to the valve actuator; ensure that the retention screw is tight enough for the seal to protect from water ingress, but is not over-tight.
7. FLOW SWITCH: connect the flow switch using FP200-rated cable – use the blue terminal blocks in the enclosure, as marked in the photo above, and connect to the COM and NC terminals in the flow switch. An earth connection is also provided if required. Please refer to the diagrams at the end of these instructions.
8. MAINS POWER: connect the plug to a power outlet. If you prefer to wire directly into a fused spur then the plug can be removed, but you must ensure the unit is earthed.
9. MONITORING: The relay used is DPDT, and connections are available (numbered 21, 22 and 24 as per the wiring diagram) so that the relay (and therefore the valve status) can be monitored.

*Dangerous, potentially lethal voltages are present within this equipment; therefore, care should be taken to ensure that all electrical connections remain firm and that cables do not wear, become subject to physical damage nor allowed to be in contact with excessive heat or vibration etc.*

## COMMISSIONING AND TESTING

10. Without power and prior to installation, the valve should be in a closed state.
11. Once installed, powered up, and with the flow switch connected correctly, the valve should move to an open state (please note that the valve will take between 10 and 30 seconds, depending on valve size, to fully open or close).
12. After ensuring the system is filled with water, operate the flow switch manually (using small lever on top when cover is removed), and the valve should move to a CLOSED position – you may observe the LED flashing RED and/or the line in the indicator glass.
13. Release flow switch, which should cause the valve to revert to an OPEN state – you may observe the LED flashing GREEN and/or the line in the indicator glass.
14. Turn off power to the controller, and the valve should again move to a CLOSED position – you may observe the LED flashing RED and/or the line in the indicator glass.
15. You may perform further tests (subject to your testing/commissioning regime) for instance by draining water from a test point on the fire sprinkler system, in turn activating the flow switch which should cause the valve to close.
16. For testing purposes OR if you are installing the valve prior to installing/connecting the flow switch, then a jumper wire may be installed between the two blue terminals where the flow switch would be connected. THIS WIRE MUST BE LABELLED AS TEMPORARY AND MUST BE REMOVED ONCE FLOW SWITCH IS INSTALLED AND WIRED INTO THE CONTROL BOX.

## LED STATUS INDICATOR

17. An LED indicator on top of the valve actuator provides information as to the actuator's status:

Actuator with power supply	OPEN = green	CLOSED = red
Actuator without power supply	OFF	
Actuator moving	CLOSING = flashing red	OPENING = flashing green
Manual mode	Slow flashing orange	
No power, on battery, closing/closed	Flashing red	

## MANUAL OVERRIDE FACILITY

18. The manual override facility is for the use of trained operatives only (for example when commissioning, testing or following maintenance or repair), since its use may prevent the valve from working as designed if left in manual mode.
19. When MAN is selected, the motor power, and the motor's connection to the shaft are both disconnected after a few seconds. The hand-wheel can be used to turn the valve manually, the position of which can be observed on top of the actuator.
20. The easiest way to reactivate automatic mode is simply to switch the lever back to AUTO, disconnect and then reconnect the power supply to the valve controller.

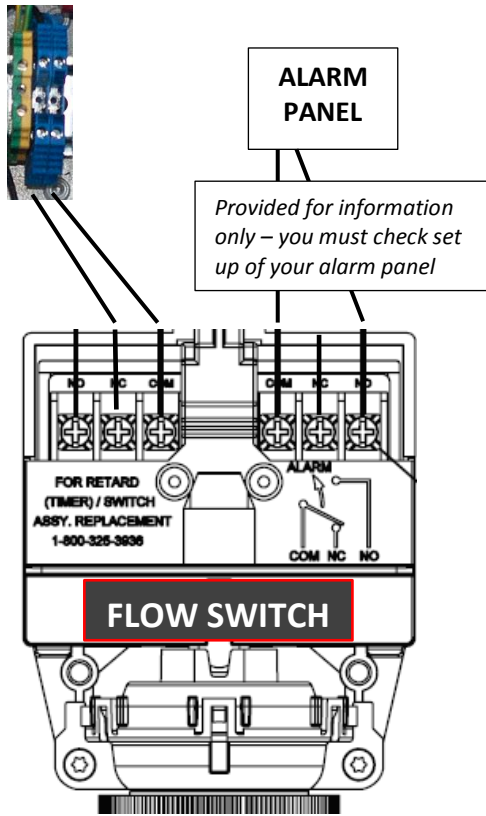
## SPARE PARTS

Only use genuine spare parts or service kits purchased from SEP. The use of non-genuine spare parts may affect the reliability and service life of the product and will invalidate the warranty.

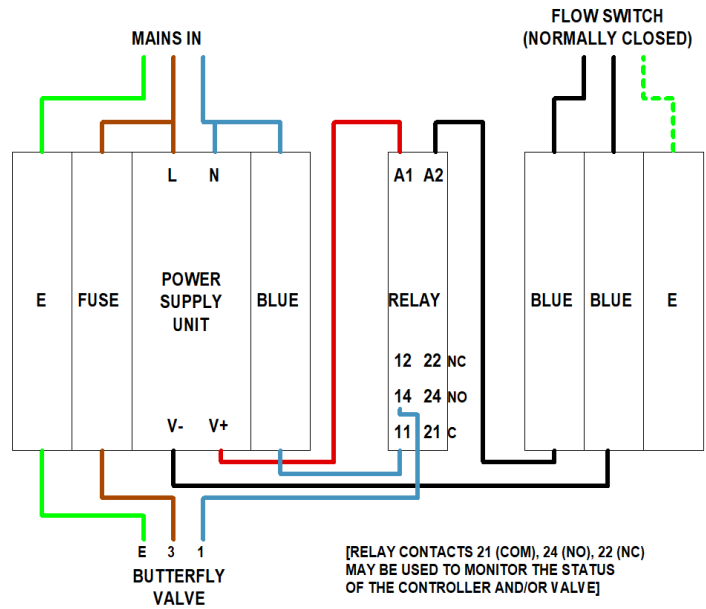
In the event of any difficulty understanding these instructions, or operating the unit, contact your supplier or the manufacturer immediately.

Alternatively, please contact Sale Engineering Products: +44 161 428 1180 or [info@saleengineering.co.uk](mailto:info@saleengineering.co.uk)

**FLOW SWITCH WIRING**



**WIRING DIAGRAM**



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British Automatic Fire Sprinkler Association

**bafsa**

