

## **DOMESTIC BOOST STATION FOR BS9251**

This product brings our industrial fire sprinkler & product experience to the domestic fire sprinkler market.

The product is configured for either towns mains boosting or tank fed systems and is designed for cost sensitive installations, but still giving a high level of testing/ safety.

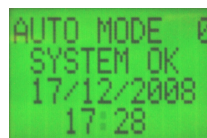
The product combines a pump and controls with a domestic riser and offers a higher level of protection than BS9251 requires, whilst being competitive.

The pump acts as a jockey pump and then a fire pump if demand is not met.

Functionality of the pump and pressure switches are tested automatically every week.

Annual testing including a flow test can be conducted on the pump only, whilst the system remains pressurised; saving time water and energy and giving accurate pump duty results.

Incredibly simple plug and pump  
Footprint - size of a shoe box



### **Condition Indicators**

The LCD screen shows the pump and switch status at all times. A reset button can be used to acknowledge/clear faults and perform testing functions. A weekly test checks functionality and the LCD allows quick and simple fault diagnosis

## **PRODUCT FEATURES**

### **PUMP**

- Pre-wired and tested
- Thermally protected & continuously rated
- Power cables fire rated **LPCB approved**

### **CONTROLS**

- **Pressure switch (LPCB approved) Circuit No 1** acts as a jockey pump first then a fire pump
- **Pressure switch (LPCB approved) Circuit No 2**, same as circuit one offering back-up
- **Failsafe wiring** the pressure switch circuits will operate the pump if they go open circuit
- **Jockey pump** the jockey pump will operate for 15 seconds to remake pressure loss
- **Fire pump** the pump will operate if pressure is not satisfied, LCD and alarm indication.
- **Pressure gauge** 0-7 bar glycerine filled to dampen pressure pulses
- **Alarms;** Weekly test failed, jockey pump fault, fire pump in operation annual test due
- **Flow switch** with retard mechanism, 2 circuits available e.g. Evacuation alarm and demand valve
- **Impeller Cooling**, if the fire pump operates, the solenoid valve opens every minute for 2 seconds to cool the impeller ensuring functionality even when a property is unoccupied, if a fault exists

## **TESTING & OPERATION**

- **Power on** when the system is switched on, the pump will run until the pressure is healthy.
- **Self test** The product will self test itself every week by opening a solenoid valve and sending some water to drain / back to the tank. The solenoid opens for six seconds to make the pressure switches unhealthy, the pump will then run for six seconds to remake pressure. The LCD and alarm will warn if the test fails.
- The system can remain pressurised at all building levels when maintenance is being carried out.
- The jockey pump is continually monitored, if more than 8 starts occur in any hour the LCD will display jockey limit and the alarm operates. This helps to prevent motor/ controls damage and warns of leaks which could cause property damage.
- Flow tests are only carried out on the pump ensuring the pump is capable of the duty at the correct pressure.
- The suction NRV ensure the pump stays “wet” even if the main runs dry or the tank empties. This protects the pump and ensures if the water situation recovers the pump will still operate.

## **PROTECTING THE ENVIRONMENT**

During an annual flow test no water is drained from the sprinkler system, this also ensures the flow test is testing the pump only. This also saves vast quantities of water, reduces time taken to carry out the test and reduces the energy used to operate the pump when refilling the system.

**FLOWSTEN** is this products big brother offering in addition; further historical analysis, flow monitoring, power failure alarm, local mist system protection, pressure switch adjust sequence, suction lift capability and a wide range of flows and pressures.

### **Technical Specifications**

<b>Model</b>	<b>Flow at duty point</b>	<b>P max (+mains pressure VAC at stated flow)</b>	<b>kW</b>	<b>inlet</b>	<b>outlet</b>	<b>test</b>	
B230-14	100l/min@ 1.4 bars	2.3 bar	230	0.6	1"	1"	3/4"
B230-21	100l/min @ 2.1 bar	2.9 bar	230	0.75	1"	1"	3/4"
B230-29	100l/min @ 2.9 bar	3.3 bar	230	1.1	1.25"	1"	3/4"
B230-35	100l/min@ 3.45 bar	5 bar	230	1.5	1.25"	1"	3/4"

Dimensions      Width 280mm      Depth 250 mm      Height 720 mm

Temp 2° to 40 °c      P max 7 bars (10 when supplied with an 11 bar gauge)

The solenoid test/ cooling line (1/2") must be piped to the tank return or a suitable drain

NB The duties listed above are for the pump, consideration must be given to the losses in the suction line, flow switch, height of water, all which affect the duty, these factors must be calculated into the overall system design.

To boost the main sufficient flow must be available, the pump will add the pressure to the main pressure at the required flow rate. Permission must be sought before boosting the main.

Where alarms are referred to we provide a volt free contact, these must be connected to suitable alarms on site. We reserve the right to make technical adjustments to the specifications, we would be happy to discuss site specific modifications/ technical improvements