THE HEAVY-DUTY GIANT

HIGH LEVEL SAFETY SWITCH

PUMPS
PH-SL-HW

Heavy-Duty Hot Water Pump

USER INSTRUCTION MANUAL

- Incorporates thermal overload protection and high level alarm switch. Ideal for unvented cylinder T&P discharge and steam humidifiers.

DIVERSITECH® INTERNATIONAL

SPECIFICATION PH-5L-HW

Model	PH-5.0L-HW
Max flow	20L/min
Max head	8m
Tank capacity	5.0L
Volts	240V / 2.4A
Hz	50Hz
Discharge size	15mm
High-level alarm	Volt free

Height	360mm
Inlet height	130mm
Length	235mm
Width	235mm
Cable length	1.8m

INSTALLATION

1. This pump is designed to automatically remove high temperature (up to 100°c) water from hot water cylinders and humidifiers. The pump is controlled by a float/switch which turns the pump on to discharge water when approximately 100mm of water collects in the tank. The pump switches off automatically when the tank drains to approximately 95mm.
2. This pump is carefully packaged, inspected and tested to ensure safe operation and delivery. When you receive the pump, examine it carefully to determine that there are no broken or damaged parts that may have occurred during shipment. If damage has occurred, please contact your supplier. They will assist you in a replacement or repair.
3. Read the instructions carefully before attempting to install, operate or service the pump. Know the pump application, limitations and potential hazards. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Please retain these instructions for future reference. Installation and connections are to be made by a qualified person.

Pump in situ

SAFETY

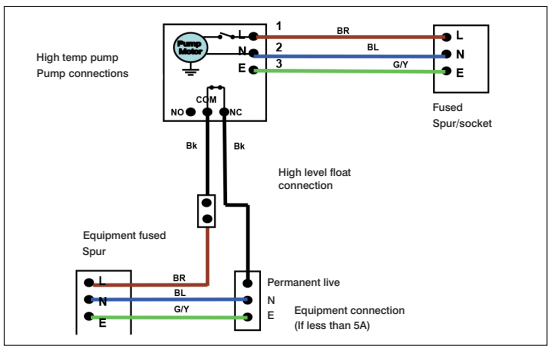
1. Do not use to pump flammable or explosive fluids such as petrol, fuel oil, kerosene, etc. Do not use in explosive atmospheres. This pump should be used with liquids compatible with the pump component materials.
2. Do not handle the pump with wet hands or when standing on a wet or damp surface, or in water. To reduce the risk of electrical shock, be certain that the electrical supply is connected to a permanent EARTH.
3. For installations where property damage and/or personal injury might result from an inoperative or leaking pump due to power cuts, discharge line blockage, or any other reason, a backup system and/or alarm should be used.
4. Support the pump and piping when assembling and when installed. Failure to do so may cause piping to break, pump to fail, motor bearing failures, etc.

INSTALLING THE PUMP

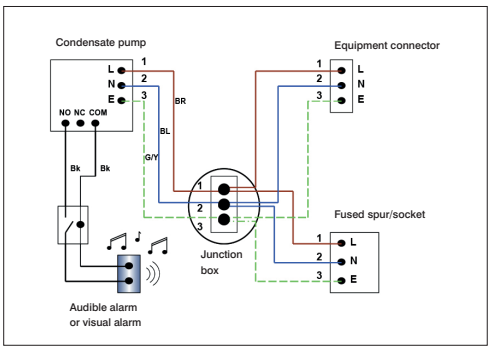
1. Carefully unpack the pump.
2. The pump is designed to be floor standing and it is essential that the pump sits on a level surface.
3. The pump should not be installed in a manner that will subject it to splashing or spraying.

ELECTRICAL CONNECTIONS

1. Shut off electrical power at the fuse box for both the pump and equipment before making any connections. All wiring must comply with appropriate regulations.
2. Connect the pump to voltage specified on label located on the pump:
   Live - BROWN
   Neutral - BLUE
   Earth - YELLOW / GREEN
3. If separate fused spur or plug is used, a 5.0 Amp fuse is recommended.
4. Connection of the high level safety switch OR potential free contact can be made to either the equipment or an audible alarm. The pump is fitted with a 10A relay to close off power supply to equipment OR to activate an alarm if the pump starts to overfill in the event of outlet pipe blockage or pump failure. The following wiring diagram shows how the switch can be connected into a boiler circuit or a separate alarm (This circuit is protected by a 5A fuse situated on the control printed circuit board).



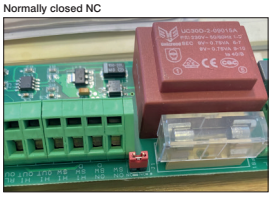
Boiler connection to the high-level safety switch



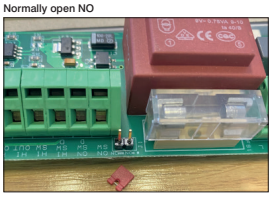
Audible alarm (sold separately) connection to the high-level safety switch

5. The high level float switch comes wired (normally closed NC). For use on a BMS system or audible alarm this switch will need to set to (normally open NO). This can be done by removing the red tab on the PCB.

Normally closed NC



Normally open NO



DRAIN CONNECTION

OUTLET CONNECTIONS

1. Connect the 15mm copper compression fitting / non return valve.
2. Pipe work should rise vertically but not exceed the maximum shut off head (pumping height) of 8 metre above the pump. Any horizontal runs should be taken into consideration when assessing the maximum shut off. This shut off will be reduced if bends and horizontal runs are included in the outlet pipe work. If in doubt please contact Pump House for advice - RULE OF THUMB: 10m Horizontal = approx. 1m vertical
3. At the highest point angle the pipe horizontally to create a downward slop to drainage point. Terminate the end of the pipe to comply with current regulations.

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COMMISSIONING & TESTING

1. Before commissioning, check for debris in the tank. Remove any material which might block the drain line or drain into the pump tank.
2. Turn on power.
3. Slowly fill the tank with clean water to prime the pump, as the sensor is activated at the ON LEVEL, the motor should turn on.
4. Leave the clean water in the tank as this will effectively prime the pump ready for use.

   This pump is designed for use with hot water applications and should be tested annually to ensure it is in full working order.

MAINTENANCE & SERVICING

1. Before servicing the pump, disconnect the electric power at the fuse box for both the pump and the equipment unit.
2. It is recommended that the pump be checked every 12 months for proper operation. Most important is to check for debris blocking the pump non return valve. Check for proper free movement of pump float and switch.
3. Clean the holding tank and float with warm water and mild soap. Rinse completely when finished.
4. Check the inlet and outlet piping. Clean as necessary.

WARRANTY

This pump comes with a 1-year warranty. This warranty covers all parts with material or manufacturing faults. The buyer's only remedy is the replacement or repair of the defective parts. In no case can labour costs and any consequential damage be cited as a basis for a complaint. Any returned units must be complete and must be accompanied by a written list of the defects.

We are unable to accept any liability in case of nonconforming installation or non compliance with the specifications or maintenance recommendations.

CONFORMITY

CE UKCA

All data contained in these specifications are solely intended to describe the product and do not constitute warranted characteristics in the legal sense. Subject to technical change.

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