

INSTRUCTIONS DETAILS

IMMERSION HEATER MONITORING UNIT TYPE IMH-1D

IMPORTANT: After power has been applied – Press the “RESET“ button. This will clear any faults and reset the Internal Timers. Under normal operating conditions (with no faults) the “Supply On” Green LED will be illuminated

COMMISSIONING TESTS

HEATING CIRCUIT:

- 1) Push the “MANUAL TEST “ button. The Heating Red LED will illuminate and the Heating relay will operate. The “Heat Fault” LED should not illuminate if the Immersion Heater current draw is correct (3KW)
- 2) Move the “OT-IP” switch to the Isolated position (UP) . Switch the 16 Amp MCB to the “OFF” position
- 3) Push the “MANUAL TEST” button. The Heating Red LED will illuminate together with the Heating Fault Yellow LED. The internal fault relay will also operate
- 4) Return both the “OT-IP” and the 16 amp switch positions to their normal position

SENSOR CIRCUIT

- 1) Short the “ Sensor Resistor” . The sensor S/C LED will illuminate, the internal Buzzer will operate together with the Heating ON LED and Heating relay
- 2) Remove the “Sensor Resistor” . The sensor O/C LED will illuminate, the internal Buzzer will operate together with the Heating ON LED and Heating relay
- 3) Connect the Temperature Sensor cable and press the “RESET” switch. The sensor’s temperature will be displayed

UNIT OPERATION DETAILS

SENSOR TEMPERATURE

- 1) The actual sensor temperature is shown by the LED bar display (2 LED’s illuminated indicates a Mid Value)
- 2) The unit is factory preset to “ TURN ON” the immersion heater circuit when the temperature falls to 5°C and to “TURN OFF” When the sensor temperature increases to 9°C.

OVER TEMPERATURE THERMOSTAT ALARM

If the O/T input is connected (N/C live feed) and the O/T thermostat operates then :-

- 1) **On call for heat** – the Heat relay & Heat LED will operate , then after a short delay then switch OFF . The Heat fault LED will flash and the internal buzzer will sound. The fault relay will also operate.
- 2) After about 10 seconds the unit again turn on the Immersion heater relay & Heat LED. If the O/T thermostat is still operated the Immersion heater relay & Heat LED will be turned off. This will be repeated until the “Call for heat “condition is cancelled. The unit will automatically return to its normal mode

AUTO TEST

- 1) The unit will perform a “Automatic Test” very 2 hours . When in auto test mode the “AUTO TEST “LED will be illuminated and the immersion Heater relay will operate together with the “HEATER ON”LED. After 10 seconds the unit will return to its Normal mode.
- 2) If a Immersion Heater fault occurs during this test then the “HEATER FAULT” LED will illuminate and the Internal buzzer will sound. The fault relay will also operate. The unit will latch the Fault outputs after this test. To return the unit to its normal mode press the “RESET” button.
- 3) A “Quick Auto Test” is provided for use when commissioning. With the “Q-TEST” switch moved to the ON position the auto test mode will operate every 30 seconds. After commissioning return the “Q-TEST” switch to the OFF position & press the Reset Button .
*** During the Auto Test mode only the Immersion heater elements are tested ***

MANUAL TEST TIMER

The unit has a Manual test facility. The time the immersion heater is “ON” can be changed by using DIP switch settings 4 & 5. With setting 4 in the ON position the Immersion heater will operate for 15minutes and with setting 5 in the ON position for 1 minute. With both setting 4 & 5 OFF the Immersion heater will only Operate whilst the Manual test switch is operated. After commissioning both settings 4 & 5 should be in the OFF position

BUZZER ISOLATE

The buzzer can be isolated (Silenced) by moving the “BUZZER MUTE” switch to the OFF position.

O/T ALARM ISOLATE

The unit has a “O/T “Input. This is a live input from the N/C over temperature thermostat located within the Immersion heater Enclosure. If this input is NOT required then the “OT-IP” switch MUST be moved to the ON position. With the switch in this position the O/T input/operation is disabled

