# **AWC10 Installation Guide**

# **Connections**

## **Mains Supply**

Power supply into the AWC10, which should be fused at 5 amps, these connections are L = Live or phase 230v AC 50/60Hz E = Earth N = Neutral

## **Heat Enable**

This is the main call for heat for the system, there are 3 connections: LS = Live Supply E = Earth LR = Live Return Electrically this is a volt free switch, whatever supply is placed on the LS connection, is fed to the LR connection when there is a call for heat.

#### Zones 1...10 (Inputs)

Zone inputs are clearly marked at the top of the circuit board; L = Live supply to thermostat.

E = Earth N = Neutral supply to thermostat.

S/L = 230v switch live from thermostat, this activates the corresponding zone output.

## Zones 1...10 (Outputs)

Zones outputs are clearly marked

L = live out to actuator or valve

N = neutral to actuator or valve

There are two connections live (L) and neutral (N), both terminals marked L are the same and both terminals marked N are the same. Each zone output corresponds to the thermostat wired in at the top of the pcb.

#### Zone10

Zone 10 can be used as an isolated radiator zone, by using the UFH/RAD switch. If the switch is set to RAD; When zone10 calls for heat this will provide an output to a radiator zone valve and the boiler but WILL NOT enable the under-floor heating pump/valve output.

If the switch is set to UFH; When Zone 10 calls for heat, this will act as an under-floor heating zone, by enabling the actuator, boiler and pump/valve outputs. Any output which is not needed can be ignored.

## **UFH Pump**

Used for an underfloor heating manifold pump, connections are L = Live E = Earth N = Neutral

When an under-floor heating zone sends a call for heat to the AWC10, the live & neutral output will supply 230v to the manifold pump

## The delay time is 3 minutes if switch in 1; The delay time is 1 minute if switch in ON;

It is recommended that this is fed through a high limit switch placed on the heating manifold, to protect against mechanical failure of the manifold's temperature control.

#### **UFH Valve**

Used for an underfloor heating manifold valve. Connections are Clearly marked.

## To enable Pump delay Or and Gr must be shorted

Or = Orange Gr = Grey L = Live E = Earth N = Neutral

When an under-floor heating zone sends a call for heat to the AWC10, the live & neutral output will supply 230v to the manifold valve. The auxiliary wires of the valve, usually grey & orange, are wired to the Gr & Or terminals.

### **Fuses**

**Fuse** 5amp, 30mm anti-surge fuse, this fuse supplies power to all 230v outputs from the board it protects the zone, pump/valve outputs.

