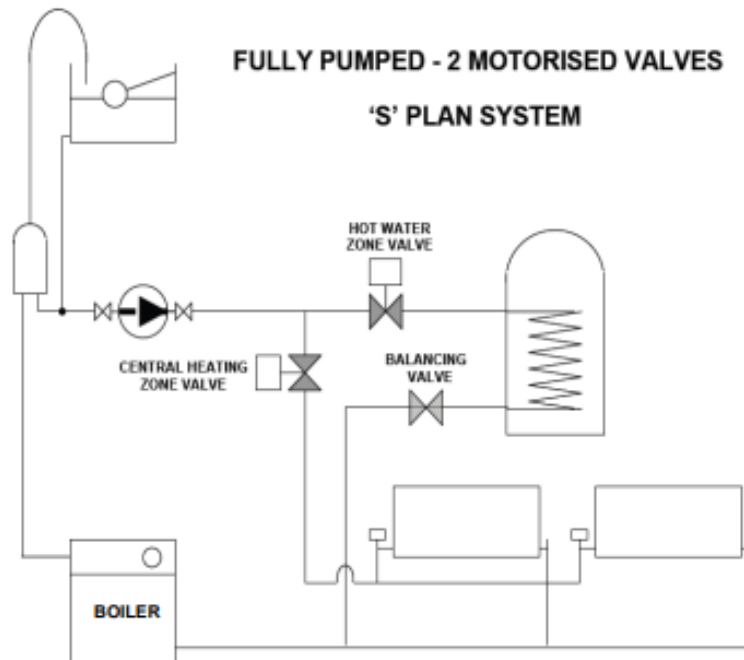
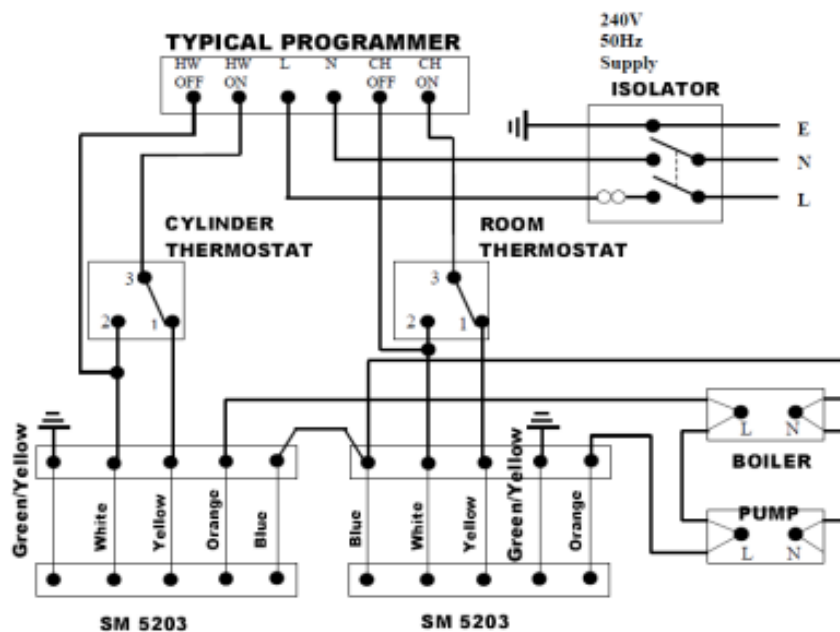


# Sunvic SM 2 Port Motor Open Motor Close



## TWIN MINIVAL WITH TYPICAL PROGRAMMER



**NOTE:-** Refer to manufacture instructions for correct Pump and Boiler wiring connections for specific appliances

## Sunvic SM 2 port (motor open/close) cont..

### System Description

Used to control fully pumped heating systems similar to S plan systems but with the use of 2 Motor Open / Motor Close Zone Valves. The customer can control demands having:- Water Only, Heating Only or both Heating and Hot Water together. Each demand having its own control / temperature device to maintain customer set timed and temperature requirements to achieve satisfactory heating conditions.

### Valve Operation

With no voltage to the motor open/close valves (de energised) the valves rest in the closed position, valve port closed. When both demands are required with the cylinder and room thermostats calling for heat both zone valves operate and open the internal valve port allowing primary water to flow through the individual valves to both radiator and hot water circuits at the same time. The valve movement also operates an internal end switch which in turn operates the pump and boiler, circulating primary water to the heating and hot water circuits. At the end of either demand the valve/s requires voltage to move the valve/s back to their closed (rest) position) The Sunvic SM system allows independent control of Heating or Hot Water via a two channel programmer.



### Hot Water Demand.

230Vac demand from the programmer / or clock is sent to the "Common" on the Cylinder thermostat. With the cylinder thermostat requesting heat, 230VAC is sent to the Yellow wire at the Hot Water zone valve. The zone valve now operates, opening the valve port, the valves operation also operates an internal micro-switch (end switch) switching 230Vac to the Orange wire of the valve actuator which in turn feeds voltage to the Boiler and Pump, causing them to operate, allowing primary heat to circulate to the hot water circuit .

Hot Water Demand ends / or Reaches temperature - When the demand, or cylinder thermostat temperature is satisfied, voltage is removed from the Yellow wire of the hot water zone valve. The zone valves satisfied connection (White wire) now receives 230Vac which causes the zone valve to motor to its closed position. Closing of the valve also breaks the internal micro-switches electrical connection, Voltage is now removed from the Boiler and Pumps Orange wire supply causing the Boiler and Pump to cease operation.

### Heating Demand.

230Vac demand from the programmer / or clock is sent to the "Common" on the Room thermostat. Room thermostat requests heat , 230VAC sent to the Yellow wire on the Heating zone valve. The zone valve now operates opening the valve port , the valves operation also operates an internal micro-switch (end switch) switching 230Vac to the Orange wire of the valve, which in turn feeds the Boiler and Pump, causing them to operate allowing primary heat to circulate to the heating circuit.

Heating Demand ends / or Reaches temperature - When the demand, or room thermostat temperature is satisfied, voltage is removed from the Yellow wire of the Zone Valve. The zone valves satisfied connection (White wire) now receives 230Vac which causes the zone valve to motor to its closed position. Closing of the zone valve also breaks the internal micro-switch connection causing voltage to be removed from the Boiler and Pumps Orange wire supply causing the Boiler and Pump to cease operation.

### Heating and Hot Water Demand.

Operation as independent demands as above.