

# INTELLIGENT CONTROL - ICON & HEAT PUMP UFH, DHW, RADIATOR CONTROL OVERALL PLANT & WIRING LAYOUT

## MULTI-FUNCTION SENSOR

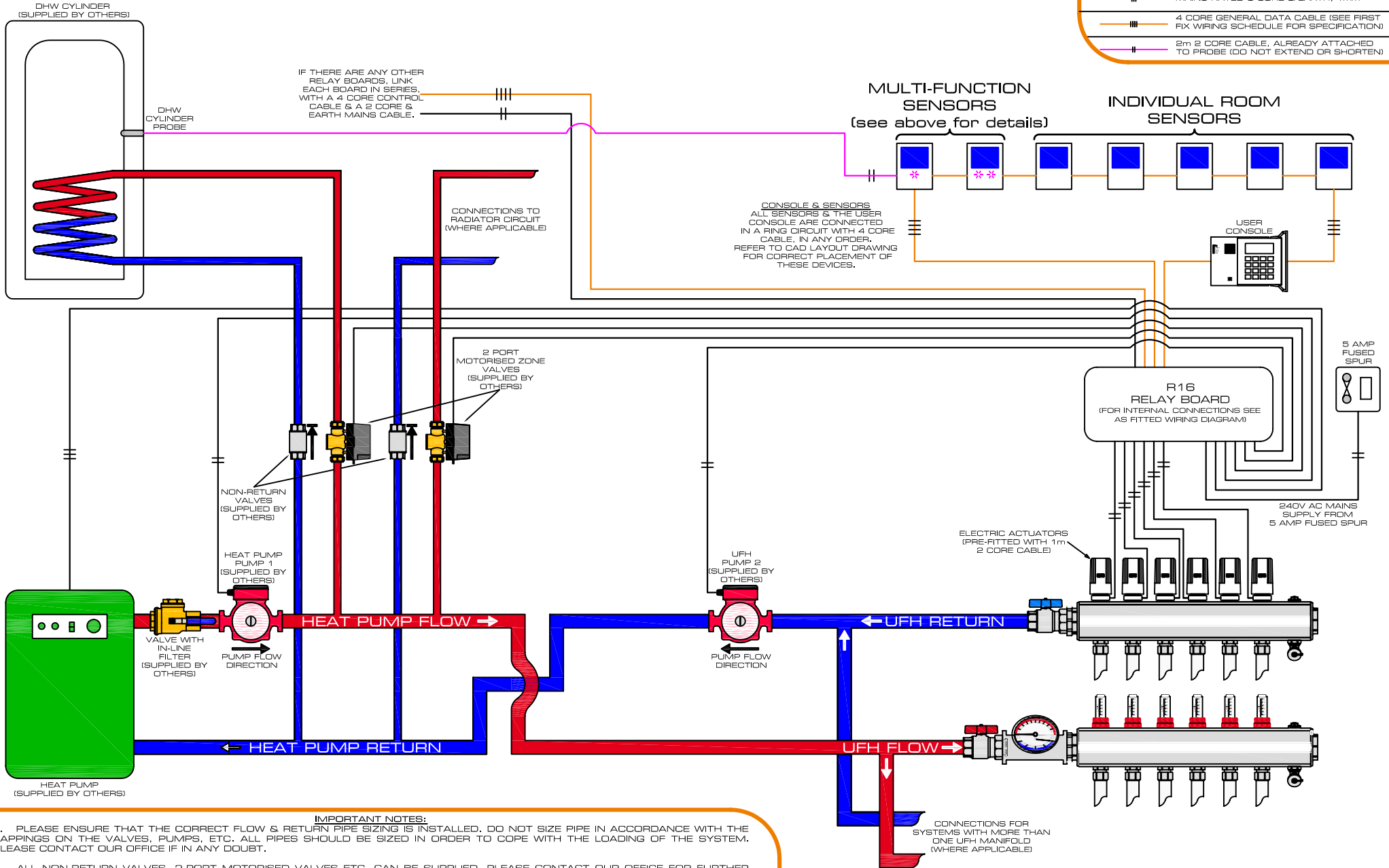
\* **DHW CYLINDER SENSOR** - THIS SENSOR IS TO BE USED AS THE CYLINDER THERMOSTAT. THE SENSOR IS TO BE LOCATED IN THE DHW CYLINDER CUPBOARD WITHIN A METRE OF THE PROBE. THE PROBE IS TO BE INSERTED INTO THE POCKET OF THE DHW CYLINDER.

\* **RADIATOR CIRCUIT SENSOR** - THIS SENSOR IS TO BE USED AS THE RADIATOR CIRCUIT THERMOSTAT. THE SENSOR IS TO BE LOCATED ON THE FIRST FLOOR HALL/LANDING AREA) AND WILL BE UTILISED FOR CONTROLLING THE TIME AND TEMPERATURE OF WHICH THE RADIATOR CIRCUIT WILL OPERATE. THUS PROVIDING A SETBACK FUNCTION FOR THE RADIATOR CIRCUIT.

THESE SENSORS ARE ALSO TO BE INCLUDED IN THE RING CIRCUIT FOR ALL DEVICES (I.E. USER CONSOLE, ROOM SENSORS & MULTI-FUNCTION SENSORS). THE PROBES COME WITH A 2m LENGTH CABLE; THIS CABLE MUST NOT BE EXTENDED OR SHORTENED.

## KEY FOR CABLES TO BE USED

	MAINS RATED 2 CORE & EARTH, 1.5mm <sup>2</sup>
	MAINS RATED 3 CORE & EARTH, 1.5mm <sup>2</sup>
	MAINS RATED 3 CORE & EARTH, 1mm <sup>2</sup>
	4 CORE GENERAL DATA CABLE (SEE FIRST FIX WIRING SCHEDULE FOR SPECIFICATION)
	2m 2 CORE CABLE, ALREADY ATTACHED TO PROBE (DO NOT EXTEND OR SHORTEN)



IF THERE ARE ANY OTHER RELAY BOARDS, LINK EACH BOARD IN SERIES, WITH A 4 CORE CONTROL CABLE & A 2 CORE & EARTH MAINS CABLE.

CONNECTIONS TO RADIATOR CIRCUIT (WHERE APPLICABLE)

MULTI-FUNCTION SENSORS (see above for details)

INDIVIDUAL ROOM SENSORS

CONSOLE & SENSORS ALL SENSORS & THE USER CONSOLE ARE CONNECTED IN A RING CIRCUIT WITH 4 CORE CABLE, IN ANY ORDER. REFER TO CAD LAYOUT DRAWING FOR CORRECT PLACEMENT OF THESE DEVICES.

R16 RELAY BOARD (FOR INTERNAL CONNECTIONS SEE AS FITTED WIRING DIAGRAM)

240V AC MAINS SUPPLY FROM 5 AMP FUSED SPUR

ELECTRIC ACTUATORS (PRE-FITTED WITH 1m 2 CORE CABLE)

UFH PUMP 2 (SUPPLIED BY OTHERS)

NON-RETURN VALVES (SUPPLIED BY OTHERS)

HEAT PUMP PUMP 1 (SUPPLIED BY OTHERS)

2 PORT MOTORISED ZONE VALVES (SUPPLIED BY OTHERS)

5 AMP FUSED SPUR

## IMPORTANT NOTES:

- PLEASE ENSURE THAT THE CORRECT FLOW & RETURN PIPE SIZING IS INSTALLED, DO NOT SIZE PIPE IN ACCORDANCE WITH THE TAPPINGS ON THE VALVES, PUMPS, ETC. ALL PIPES SHOULD BE SIZED IN ORDER TO COPE WITH THE LOADING OF THE SYSTEM. PLEASE CONTACT OUR OFFICE IF IN ANY DOUBT.
- ALL NON-RETURN VALVES, 2-PORT MOTORISED VALVES ETC. CAN BE SUPPLIED, PLEASE CONTACT OUR OFFICE FOR FURTHER INFORMATION.
- DEPENDING ON THE HEAT PUMP MANUFACTURER, THE HEAT PUMP MAY BE SUPPLIED WITH AN INTERNAL, PREFITTED PUMP (P1), HOWEVER THERE IS A STRONG POSSIBILITY THAT THIS PUMP MAY BE UNDERSIZED TO BE ABLE TO COPE WITH THE UNDERFLOOR HEATING REQUIREMENTS. IN THIS INSTANCE A CORRECTLY SIZED SECONDARY PUMP (P2) SHOULD BE FITTED AND WIRED AS SHOWN. (NOTE THAT THIS PUMP IS FITTED ON THE RETURN PIPEWORK FROM THE UNDERFLOOR HEATING PUMPING BACK TO THE HEAT PUMP)