

UFH5

Wiring Centre



Installation and Operation Guide

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Factory Default Settings

Zone 4 Switch: UFH

Zone 5 Switch: UFH

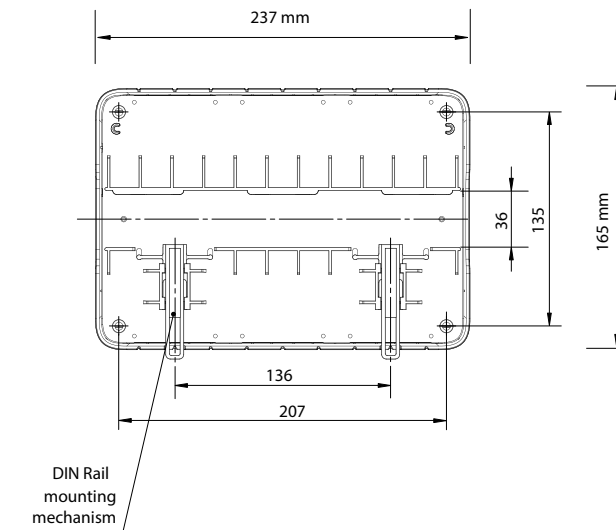
Grey and Orange terminals of the UFH valve are electrically linked. If UFH valve is fitted, remove this link.

Specifications

Power supply:	230Vac 50-60Hz
Number of Zones:	5
Power Supply Indication:	Yes
Heat Enable Indication:	Yes
UFH Valve Indication:	Yes
Zone 1 to Zone 5 Indication:	Yes
Ambient temperature:	0...45°C
Admissible ambient humidity:	5-95%RH
Dimensions:	237 x 165 x 50 mm
Heat Enable contact rating:	3(1)A
UFH Pump contact rating:	3(1)A
IP rating:	IP20
Max. No. of actuators per zone	4
Max. Permissible Load	5A Resistive

Mounting and Installation

1. Remove the UFH5 from its packaging.
2. The UFH5 can be directly mounted on a wall using the fixing holes on the base of the unit or it can be directly mounted on DIN rail.



Wiring Centre Terminals

Power Supply


L 230Vac Live

 Earth

N Neutral

Programmer

L 230Vac to the programmer.

 Earth to the programmer.

N Neutral to the programmer.

1 Zone 1 output from programmer to the wiring centre.


2 Zone 2 output from programmer to the wiring centre.

3 Zone 3 output from programmer to the wiring centre.

Thermostat (Zone 1)

L Live supply to the thermostat.

1 Timed switch live to room stat from programmer zone 1.

 Earth.

N Neutral supply to the thermostat.

S/L Switch live from the thermostat to the wiring centre.


Note: With thermostat 1, you have one time input.

Thermostats (Zone 2 to Zone 4)

L Live supply to the thermostat.

1 Timed switch live to room stat from programmer zone 1

2 Timed switch live to room stat from programmer zone 2

 Earth.

N Neutral supply to the thermostat.

S/L Switch live from the thermostat to the wiring centre.

Note: With thermostats 2, 3 & 4 you have an option of; one of two time inputs.


Thermostat (Zone 5)

L Live supply to the thermostat.

1 Timed switch live to room stat from programmer zone 1

2 Timed switch live to room stat from programmer zone 2

3 Timed switch live to room stat from programmer zone 3

 Earth.

N Neutral supply to the thermostat.

S/L Switch live from the thermostat to the wiring centre.

Note: With thermostat 5, you have an option of; one of three time inputs.

Heat Enable (Boiler / Heat Pump On)

LS Live supply

 Earth

LR Live return

This is a volt free relay which is switched on when there is a call for heat.
If 230V is applied to terminal LS and there is a call for heat, 230V will come back on terminal LR.

UFH Pump (Underfloor Heating Pump)

L 230Vac Live

 Earth

N Neutral

When an underfloor heating zone calls for heat, 230V is sent to the underfloor heating manifold pump.

Best practice is to wire the underfloor heating manifold pump through a high limit thermostat which is mounted on the manifold.

UFH Valve (Underfloor Heating Valve)

GR Grey Switch Live

OR Orange Permanent Live

L Live

 Earth

N Neutral

When an underfloor heating zone calls for heat, 230V is sent to the Underfloor heating valve.

The valves auxiliary contacts are wired to the GR and OR terminals.

Note: Please refer to factory default settings on page 2.

Actuators (Zone 1 to Zone 3)

L 230V Live supply to the actuator.

N Neutral supply to the actuator.

There are two terminals marked L & N for each zone.

Actuators (Zone 4 and Zone 5)

L 230V Live supply to the actuator.

N Neutral supply to the actuator.

There are two terminals marked L and two terminals marked N for each zone.

Both zones 4 and 5 have a switch associated with each zone.

This allows the installer to use these zones as underfloor heating zones or radiator / hot water zones.

Operation of Zone 4 & 5 UFH – RAD / HW switches

If set to UFH – When the thermostat calls for heat, the actuator, boiler and pump / valve outputs are enabled.

If set to RAD / HW – When the thermostat calls for heat, the actuator is enabled.

To enable the boiler output, the actuator auxiliary contacts (Grey and Orange wires) must be connected to the LS & LR terminals of the Heat Enable.

SWITCH SELECTED	HEAT ENABLE	UFH PUMP	UFH VALVE	ZONE VALVE ACTUATOR
UFH	On	On	On	On
RAD	Off	Off	Off	On

UFH5 - 5 x Underfloor Heating Zones

c/w Mains Operated Programmable Thermostats.

Options:



CDTP2



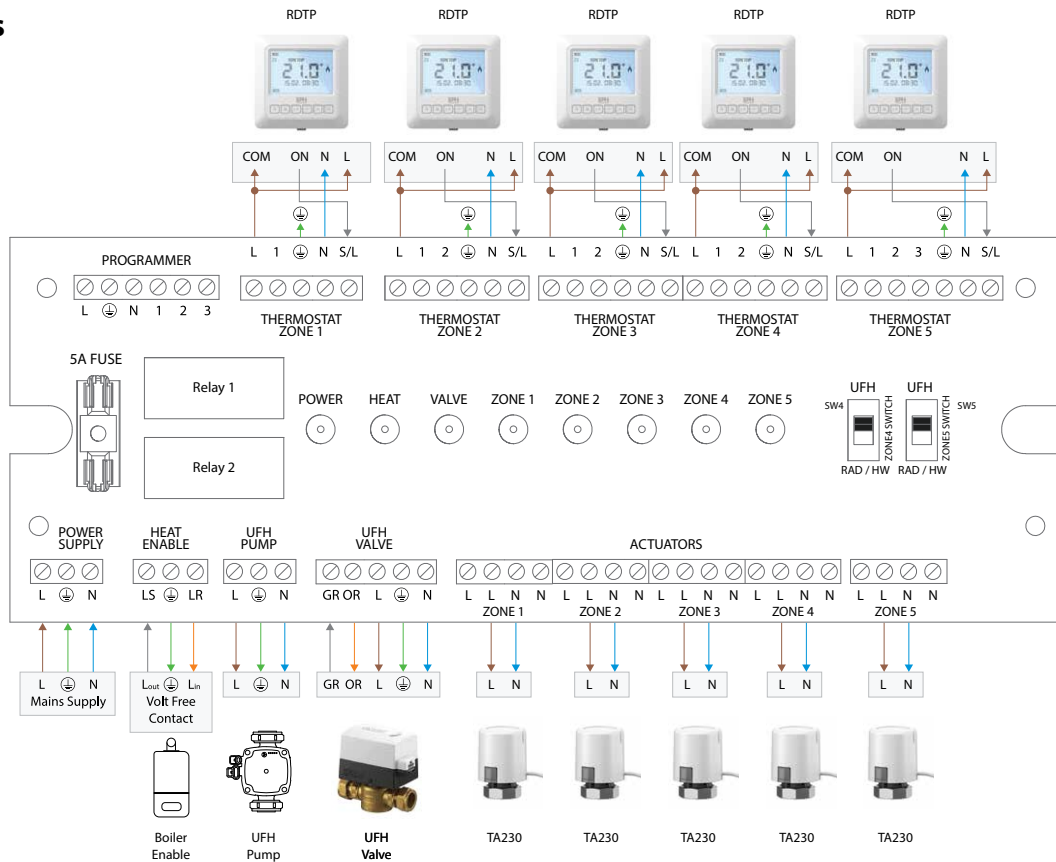
CP4M



RDT

Note: Please refer to individual thermostat wiring diagrams.

CONTROLS	INSTALLED
UFH Pump	Yes
UFH Valve	Yes
UFH Actuators	Yes
Programmer	-
RAD Valve	-
HW Valve	-



230V on OR & L when a UFH zone calls for heat.
If no valve is fitted, GR & OR must be linked out.

c/w Mains Operated Non - Programmable Thermostats.

Options:



RDT

Note: Please refer to individual thermostat wiring diagrams.

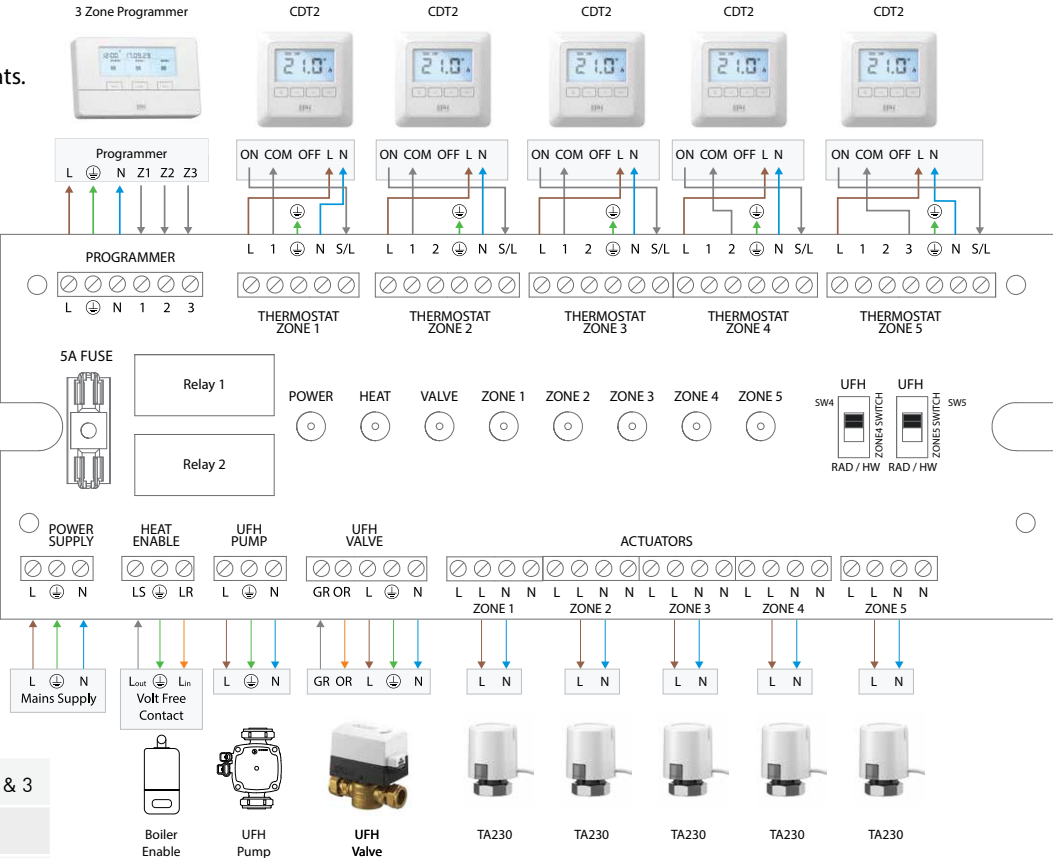
CONTROLS	INSTALLED
UFH Pump	Yes
UFH Valve	Yes
UFH Actuators	Yes
Programmer	R37
RAD Valve	-
HW Valve	-

In this example:

Zone 1 on the programmer is controlling thermostats 1, 2 & 3

Zone 2 on the programmer is controlling thermostat 4

Zone 3 on the programmer is controlling thermostat 5



230V on OR & L when a UFH zone calls for heat.

If no valve is fitted, GR & OR must be linked out.

UFH5 - 5 x Underfloor Heating Zones

c/w Mains Operated Non - Programmable Setback Thermostats.

Options:



HDT



RDT

Note: Please refer to individual thermostat wiring diagrams.

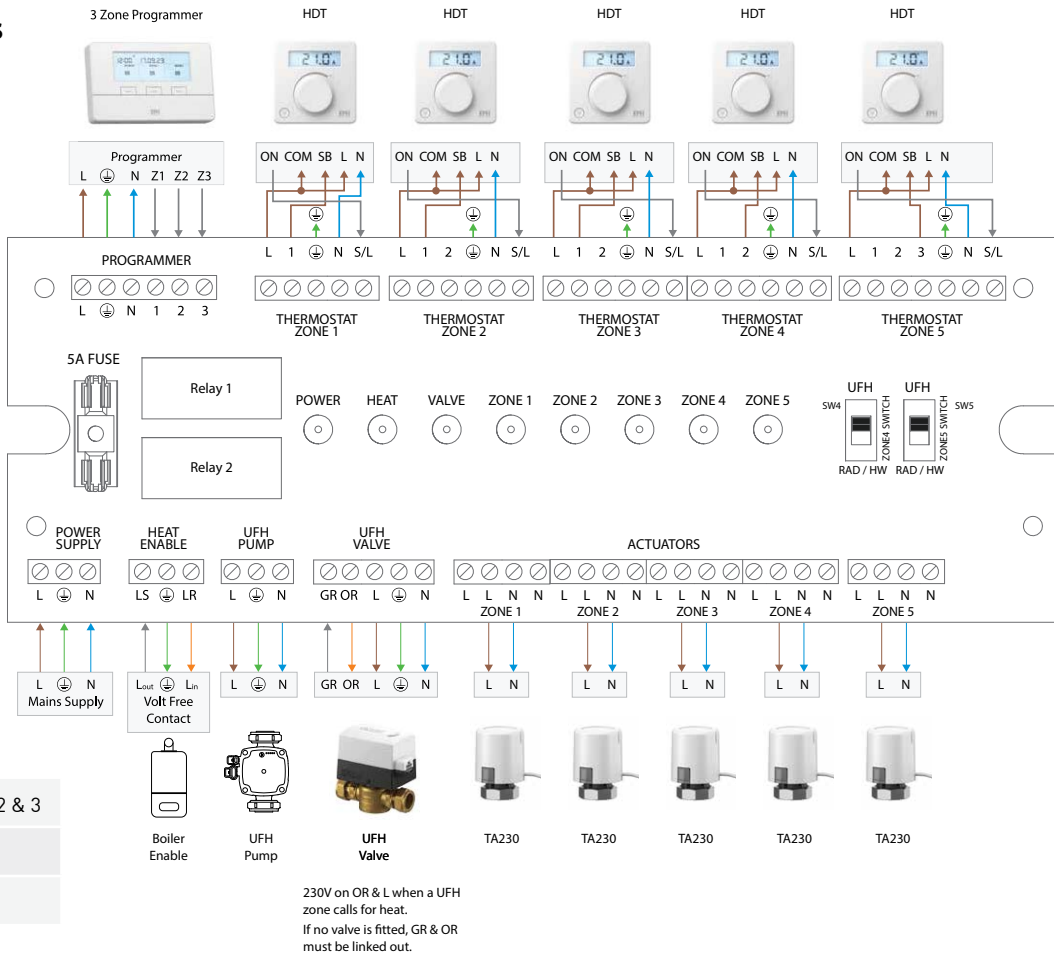
CONTROLS	INSTALLED
UFH Pump	Yes
UFH Valve	Yes
UFH Actuators	Yes
Programmer	R37
RAD Valve	-
HW Valve	-

In this example:

Zone 1 on the programmer is controlling thermostats 1, 2 & 3

Zone 2 on the programmer is controlling thermostat 4

Zone 3 on the programmer is controlling thermostat 5



230V on OR & L when a UFH zone calls for heat.
If no valve is fitted, GR & OR must be linked out.

UFH5 - 3 x Underfloor Heating Zones

- 1 x Radiator Zone

- 1 x Hot Water Zone

c/w Mains Operated Non - Programmable
Thermostats. Options:



CDT2



HDT



RDT



CDC2

Note: Please refer to individual thermostat wiring diagrams.

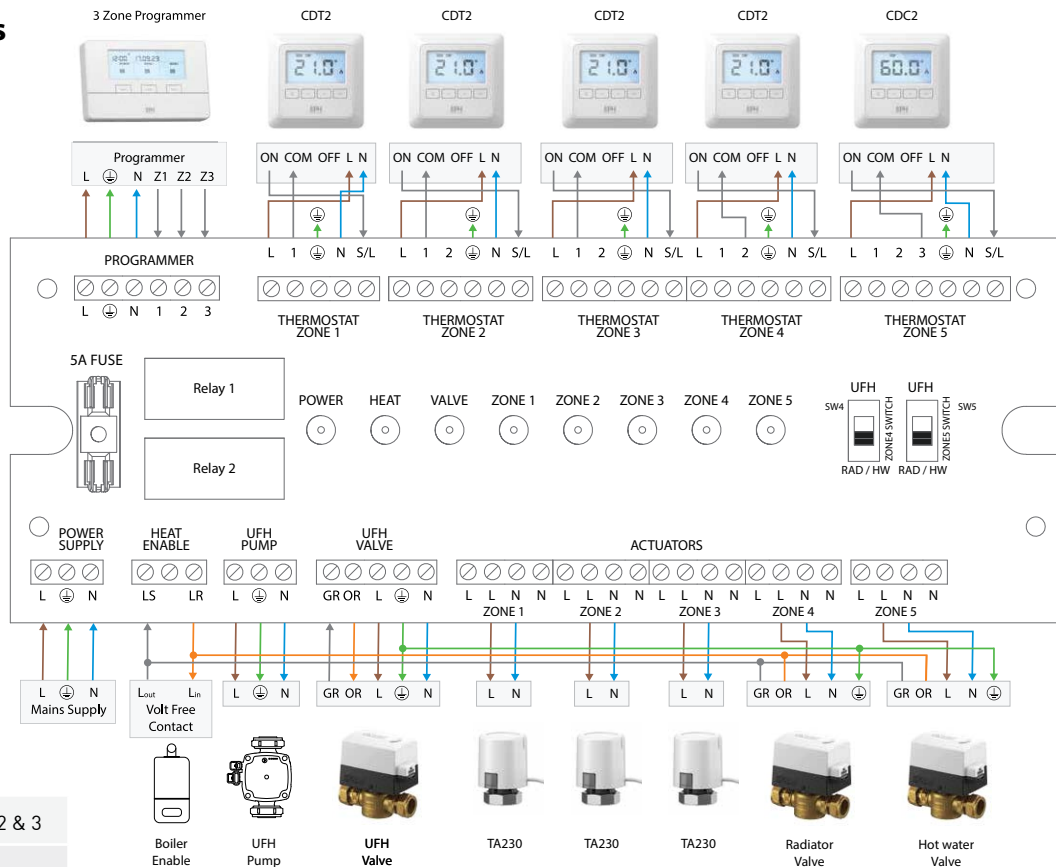
CONTROLS	INSTALLED
UFH Pump	Yes
UFH Valve	Yes
UFH Actuators	Yes
Programmer	R37
RAD Valve	V22_P
HW Valve	V22_P

In this example:

Zone 1 on the programmer is controlling thermostats 1, 2 & 3

Zone 2 on the programmer is controlling thermostat 4

Zone 3 on the programmer is controlling thermostat 5



230V on OR & L when a UFH zone calls for heat.
If no valve is fitted, GR & OR must be linked out.

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UFH5 is compatible with the following EPH thermostats

Electro - Mechanical Thermostats



CM2



CM3



CMT



CM2S



CM3S

Programmable Thermostats



CDT2



CRT2



RDTP



CP4B



CP4M

Non Programmable Thermostats



CDT2



CRT2



RDT



HDT



HRT

Cylinder Thermostats



EDBS



CDC2



WRP



WRP-IM



WRP-IM-TP

