UFH10

Wiring Centre

Installation and Operation Guide

EPH CONTROLS

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Factory Default Settings

Zone 9 Switch: UFH Zone 10 Switch: UFH

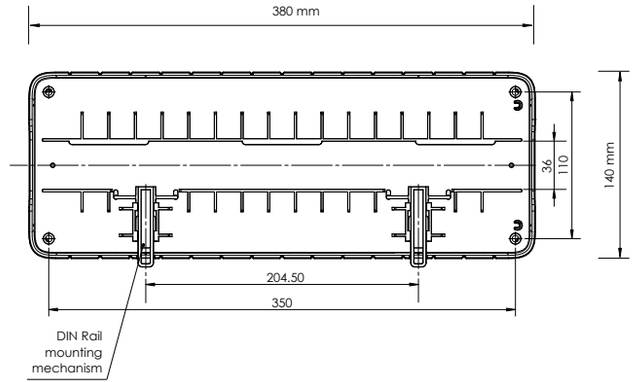
Grey and Orange terminals of the UFH valve are electrically linked. If UFH valve is fitted, remove this link.

Specifications

Power supply:	230Vac 50-60Hz	Admissible ambient humidity:	5-95%RH
Number of Zones:	10	Dimensions:	380 x 140 x 50 mm
Power Supply Indication:	Yes	Heat Enable contact rating:	3A
Heat Enable Indication:	Yes	UFH Pump contact rating:	3A
UFH Valve Indication:	Yes	IP rating:	IP20
Zone 1 to Zone 10 Indication:	Yes	Max. No. of actuators per zone	4
Ambient temperature:	0…45°C	Max. Permissible Load	5A Resistive

Mounting and Installation

1. Remove the UFH10 from its packaging.
2. The UFH10 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
E Earth
N Neutral

Programmer

L 230Vac to the programmer.
E 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.
4 Zone 4 output from programmer to the wiring centre.

Thermostats (Zone 1 to Zone 8)

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.
E Earth.
N Neutral supply to the thermostat.
S/L Switch live from the thermostat to the wiring centre.

Note: With thermostats 1 to 8, you have an option of; one of two time inputs.

Thermostats (Zone 9 and Zone 10)

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
4 Timed switch live to room stat from programmer zone 4
E Earth.
N Neutral supply to the thermostat.
S/L Switch live from the thermostat to the wiring centre.

Note: With thermostats 9 & 10, you have an option of; one of four time inputs.

Heat Enable (Boiler / Heat Pump On)

LS Live supply
E 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
E 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
E 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 1.

Actuators (Zone 1 to Zone 8)

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 9 and Zone 10)

L 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 9 and 10 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 9 & 10 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

UFH10 - 10 x Underfloor Heating Zones

c/w Mains Operated Programmable Thermostats.

Options:

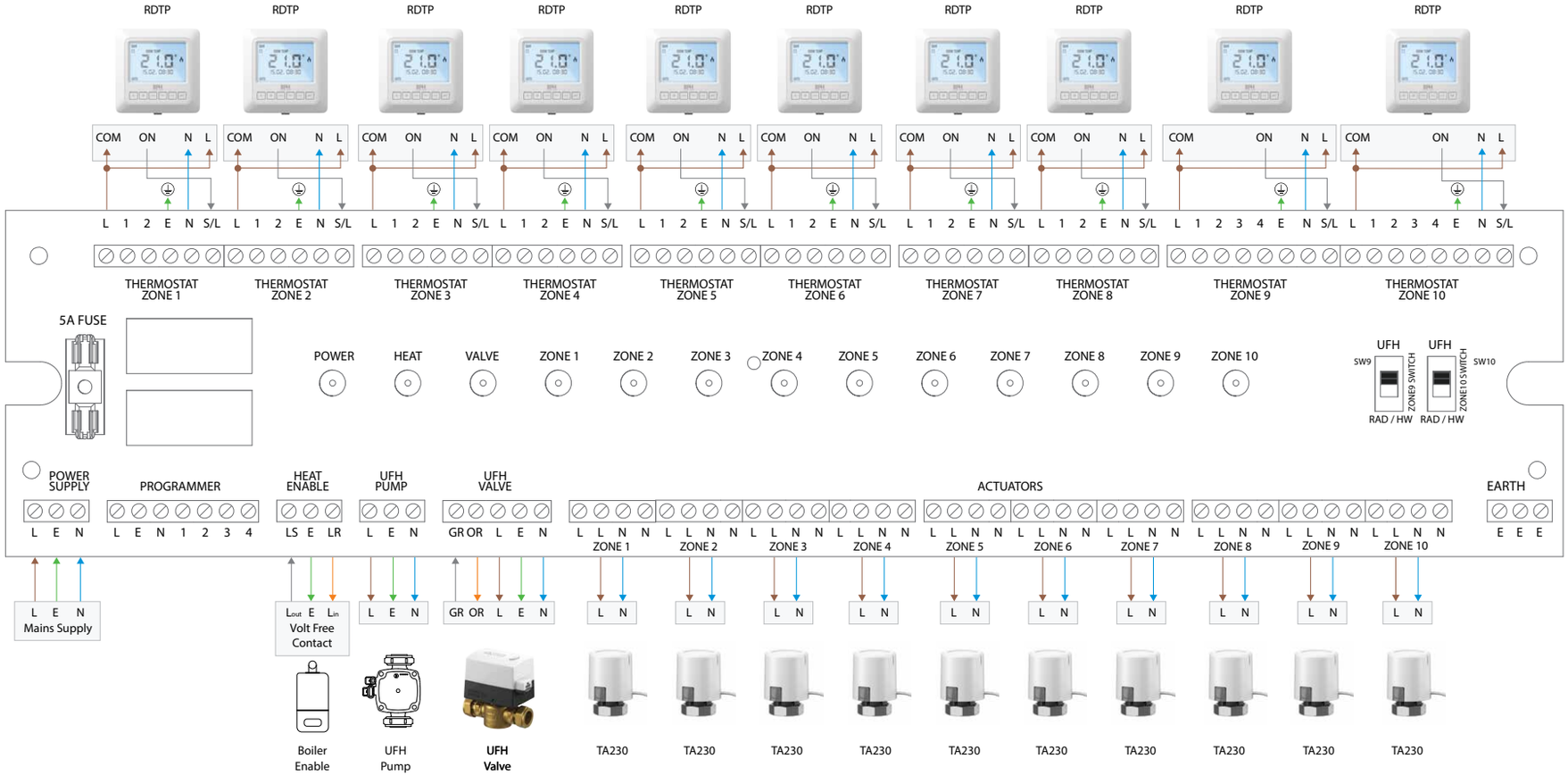
CDTP2

CP4M

RDTP

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.

UFH10 - 10 x Underfloor Heating Zones

c/w Mains Operated Non- Programmable Thermostats.

Options:

CDT2

HDT

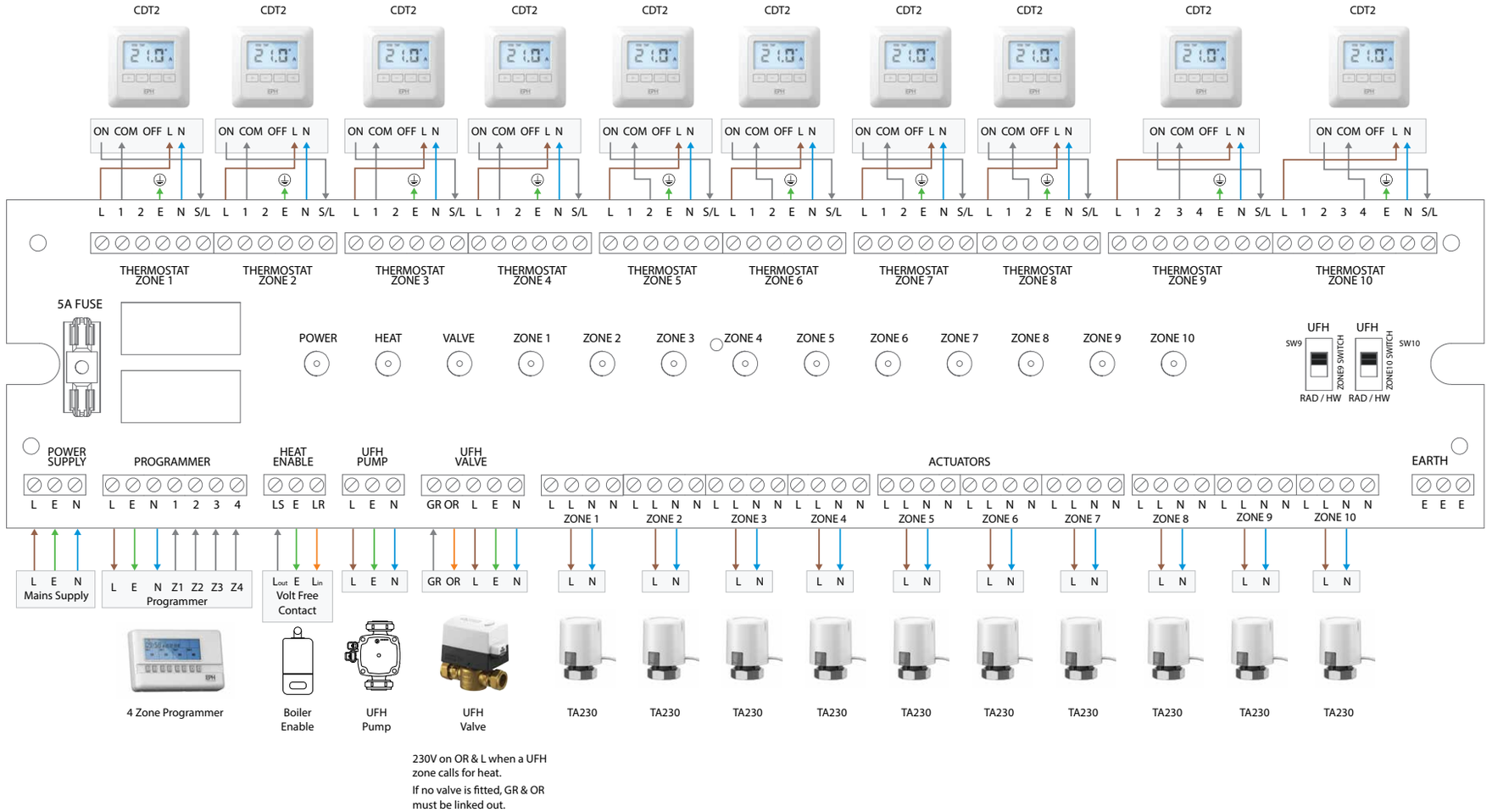
RDT

Note: Please refer to individual thermostat wiring diagrams.

CONTROLS	INSTALLED
UFH Pump	Yes
UFH Valve	Yes
UFH Actuators	Yes
Programmer	R47
RAD Valve	-
HW Valve	-

In this example:

Zone 1 on the programmer is controlling thermostats 1, 2, 3 & 4
Zone 2 on the programmer is controlling thermostats 5, 6, 7 & 8
Zone 3 on the programmer is controlling thermostat 9
Zone 4 on the programmer is controlling thermostat 10



UFH10 - 10 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	R47
RAD Valve	-
HW Valve	-

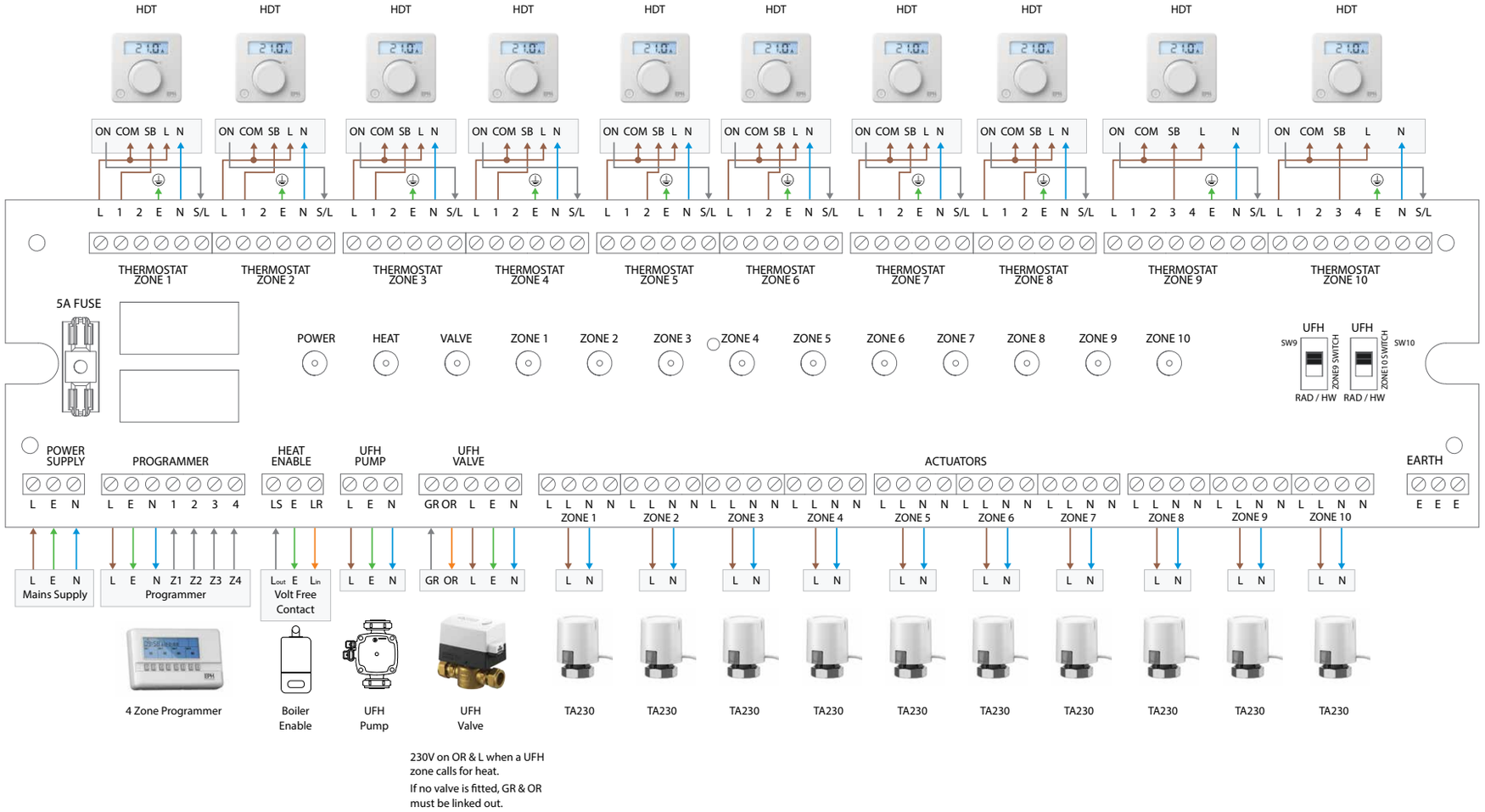
In this example:

Zone 1 on the programmer is controlling thermostats 1, 2, 3 & 4

Zone 2 on the programmer is controlling thermostats 5, 6, 7 & 8

Zone 3 on the programmer is controlling thermostat 9

Zone 4 on the programmer is controlling thermostat 10



UFH10 - 8 x Underfloor Heating Zones
- 1 x Radiator Zone
- 1 x Hot Water Zone

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

CDT2

HDT

RDT

EDBS

Note: Please refer to individual thermostat wiring diagrams.

CONTROLS	INSTALLED
UFH Pump	Yes
UFH Valve	Yes
UFH Actuators	Yes
Programmer	R47
RAD Valve	V22_P
HW Valve	V22_P

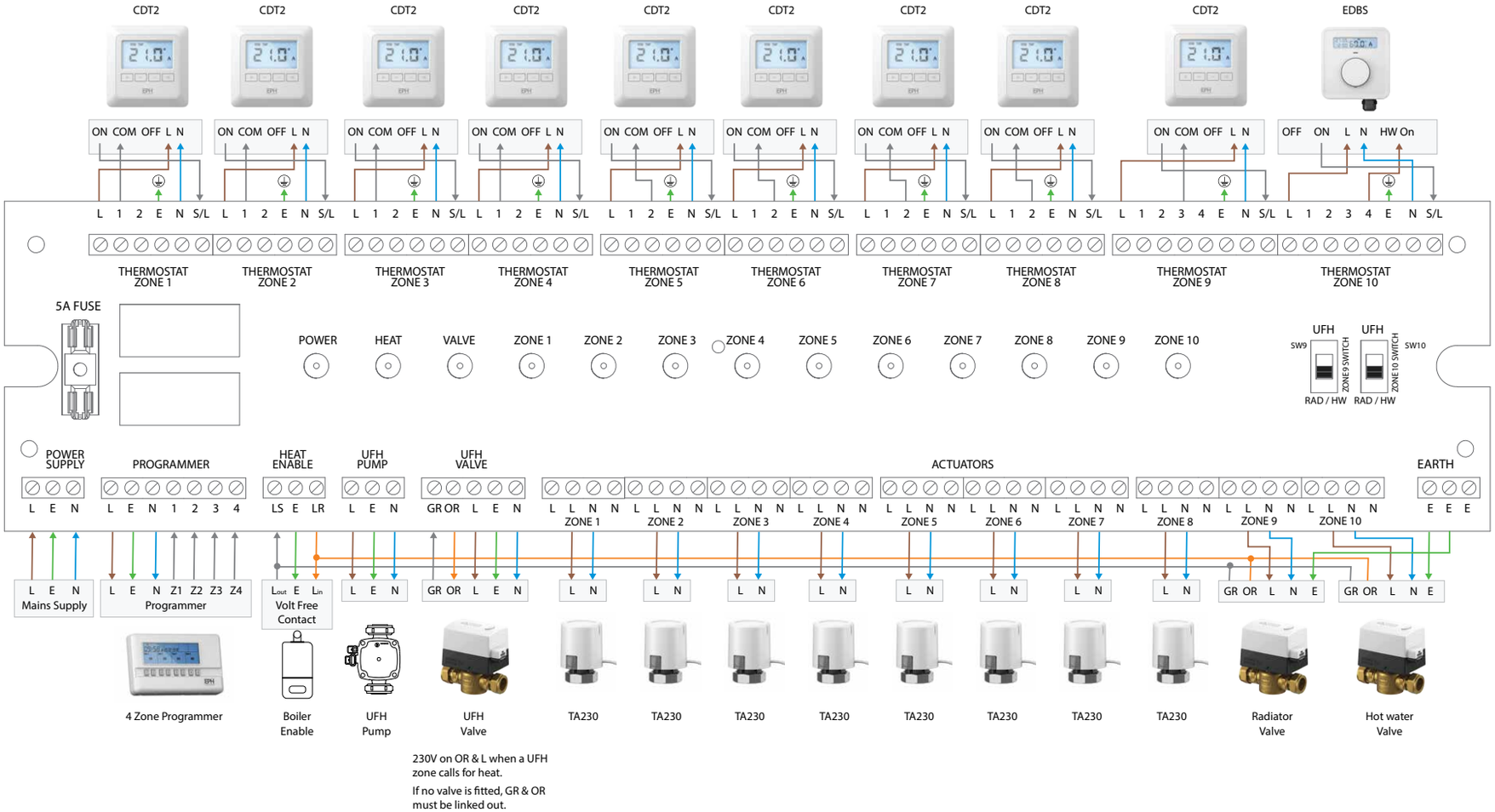
In this example:

Zone 1 on the programmer is controlling thermostats 1, 2, 3 & 4

Zone 2 on the programmer is controlling thermostats 5, 6, 7 & 8

Zone 3 on the programmer is controlling thermostat 9

Zone 4 on the programmer is controlling thermostat 10



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UFH10 is compatible with the following EPH thermostats

Electro - Mechanical Thermostats

CM2

CM3

CMT

CM2S

CM3S

Programmable Digital Thermostats

CDTP2

CRTP2

RDTP

CP4B

CP4M

Non Programmable Digital Thermostats

CDT2

CRT2

RDT

HDT

HRT

Cylinder Thermostats

EDBS

WRP

WRP-TP

WRP-IM

WRP-IM-TP

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