UFH10-24

Wiring Centre



Installation and Operation Guide

EPH CONTROLS

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Factory Default Settings

Zone 9 Switch: UFH Zone 10 Switch: UFH

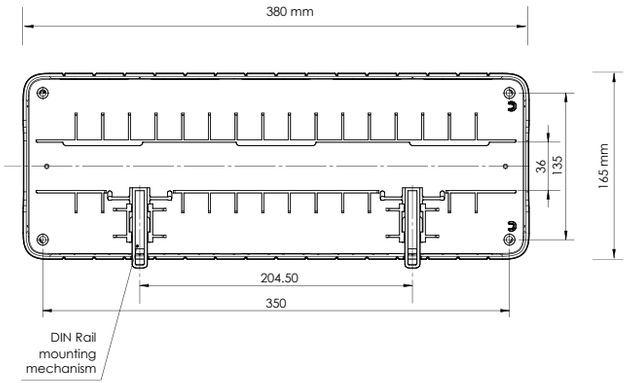
Grey and Orange terminals of the UFH valve are electrically linked. If UFH valve is fitted, remove this link.

Specifications

Power Supply Input 1:	SELV 24Vac 50-60Hz	Zone 1 to Zone 10 Indication:	Yes
Max. Permissible Load:	1A Resistive	Ambient temperature:	0…45°C
Power Supply Input 2:	230Vac 50-60Hz	Admissible ambient humidity:	5-95%RH
Max. Permissible Load:	3.5A Resistive	Dimensions:	380 x 165 x 50 mm
Number of Zones:	10	Heat Enable contact rating:	3(1)A
Power Supply Indication:	Yes	UFH Pump contact rating:	3(1)A
Heat Enable Indication:	Yes	IP rating:	IP20
UFH Valve Indication:	Yes	Max. No. of actuators per zone	4

Mounting and Installation

1. Remove the UFH10-24V from its packaging.
2. The UFH10-24V 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 24V Input

+ 24V Positive
– 24V Negative

Power Supply 230V Input

L 230Vac Live
⏚ Earth
N Neutral

Programmer

1 Zone 1 24V output from programmer to the wiring centre.
2 Zone 2 24V output from programmer to the wiring centre.
3 Zone 3 24V output from programmer to the wiring centre.
4 Zone 4 24V output from programmer to the wiring centre.

Thermostats (Zone 1 to Zone 8)

+ Positive supply to the thermostat.
1 Timed switch positive to room stat from programmer zone 1.
2 Timed switch positive to room stat from programmer zone 2.
3 Timed switch positive to room stat from programmer zone 3.
– Negative supply to the thermostat.
S/L Switch positive 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)

+ Live supply to the thermostat.
1 Timed switch positive to room stat from programmer zone 1
2 Timed switch positive to room stat from programmer zone 2
3 Timed switch positive to room stat from programmer zone 3
4 Timed switch positive to room stat from programmer zone 4
⏚ Earth.
– Negative supply to the thermostat.
S/L Switch positive 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) (Volt Free)

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) (230V)

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) (230V)

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 1.

Actuators (Zone 1 to Zone 8) (230V)

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) (230V)

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

UFH10-24 - 10 x Underfloor Heating Zones

c/w 24V Programmable Thermostat. Options:



RDTP-24



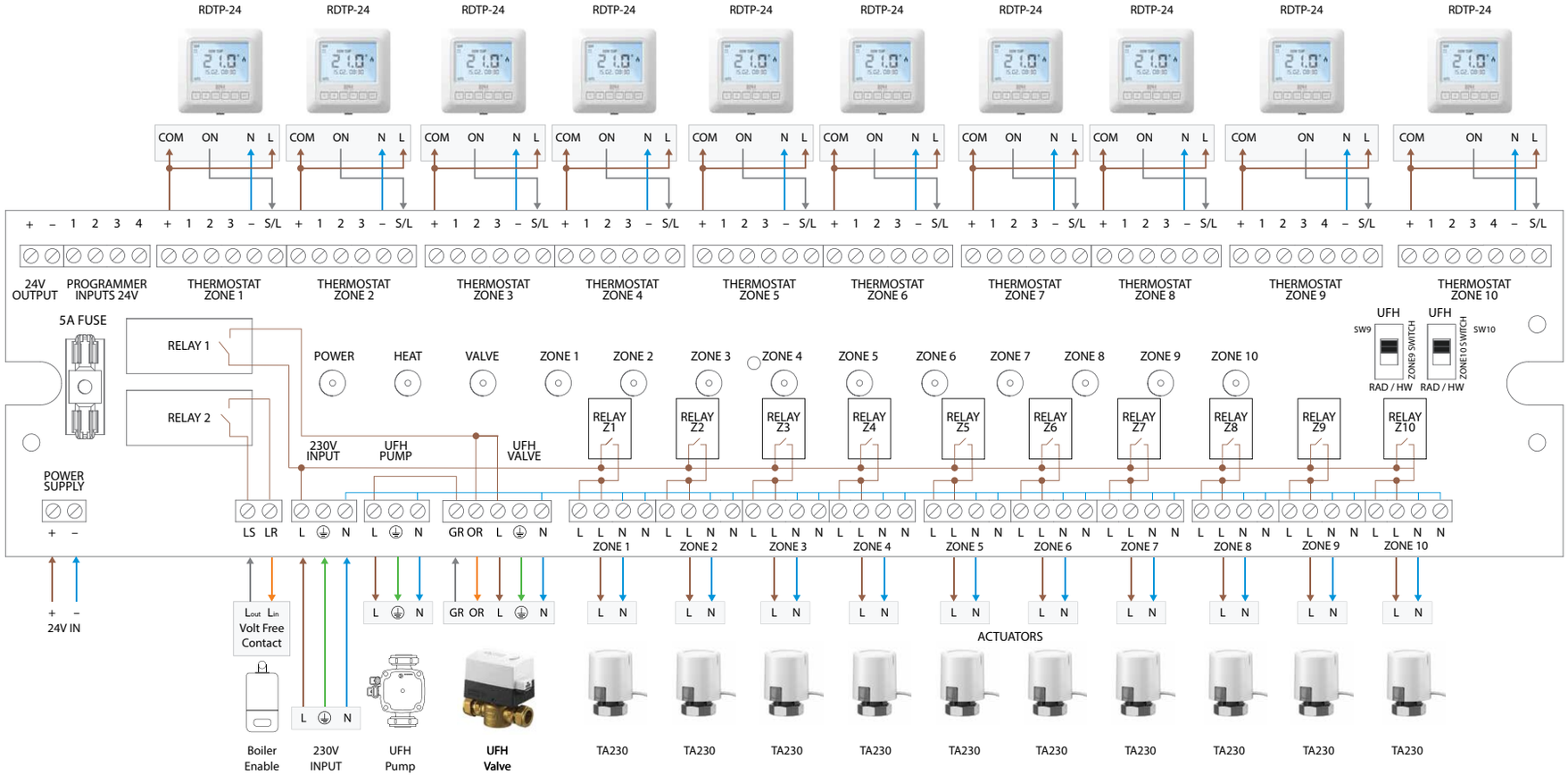
CRTP2



CP4B

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.

UFH10-24 - 8 x Underfloor Heating Zones
- 1 x Radiator Zone
- 1 x Hot Water Zone

c/w 24V Non - Programmable Thermostats. Options:



CDT2-24



WRP



CRT



HRT

Note: Please refer to individual thermostat wiring diagrams.

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

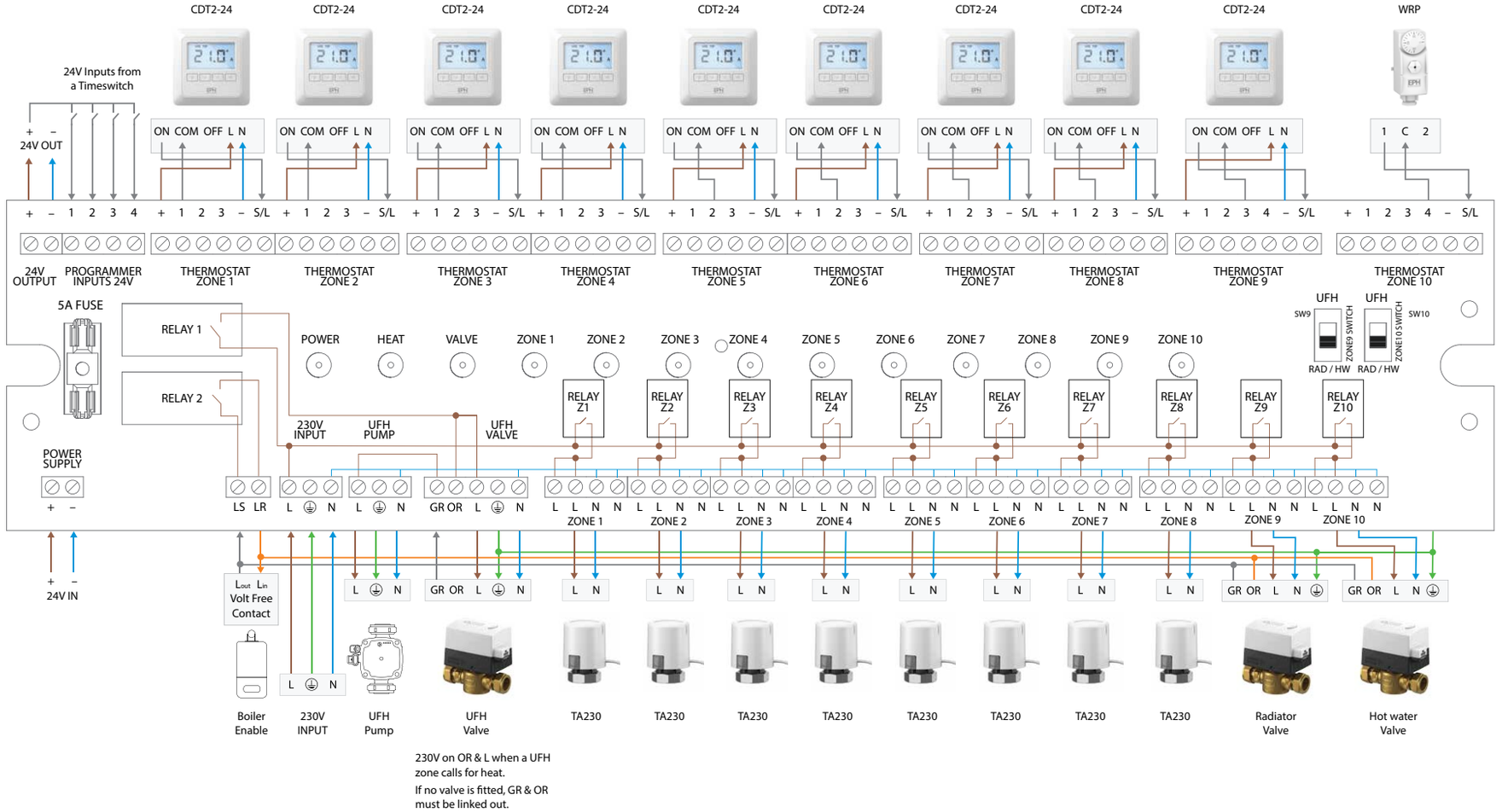
In this example:

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



Notes

Notes

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UFH10-24 is compatible with the following EPH thermostats

Electro - Mechanical Thermostats


CM2


CM3-24


CMT


CM2S

Programmable Thermostats


CRTP2


RDTP-24


CP4B

Non Programmable Thermostats


CDT2-24


CRT2


HRT

Cylinder Thermostats


WRP


WRP-TP


WRP-IM


WRP-IM-TP

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