



### EWC-1 Wiring Centres

A wiring centre range with built in isolating switch allows access to thermostats and actuators safely, without isolating the whole electrical circuit. The status of system zones can be seen immediately, with call for heat LED lights on the front face of the centre. A power, boiler and pump LED light fitted as standard, for ease of management and the facility to connect up to five actuators per zone. Fully integrated earth connection, which will facilitate all earth connections to ensure earth continuity .



### EWC-2 Wiring Centres

A more commercially priced version of the highly successful EWC-1 is now available. The EWC-2 230V wiring centres feature boiler and pump interlock relays, 8 zone and 12 zone models. Includes a fully integrated earth connection, which will facilitate all earth connections to ensure earth continuity. Incorporates boiler/pump on LED to identify when the system is calling for heat. The centre includes connections for an external time switch to allow night set back operation for use with compatible thermostats



### EWC-4 Wiring Centres

The EWC-4 is a compact, 4 way wiring centre designed for small UFH and WHR systems. The unit also allows central connection of all system components and includes connection for up to 4 room thermostats, central timeswitch terminals, manifold circulating pump terminals and boiler volt free terminals. Additional features include electrothermic actuator connection (up to 4 per channel) and LED indication for boiler/pump operation.

## Technical Product Guide

### EWC-1 Hard-wired wiring centres with on-off switch

230V and 24V 8-way wiring centres specially designed for radiant heating and cooling applications



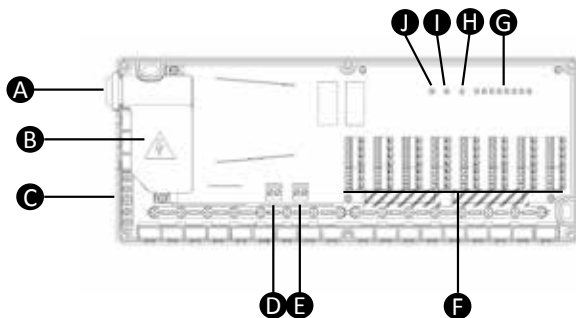
#### Why you should choose Emmeti EWC-1 Wiring Centres

Emmeti EWC-1 wiring centres offer a host of features:

- The built-in on-off switch means that when fault finding, adding new thermostats or electrothermic heads to the centre, work can go ahead safely without the need to isolate the whole electrical system
- The centre allows centralised time control of up to 8 zones with a single time switch
- Night setback using a timeswitch can also be implemented with either live or neutral switching options catered for
- Earth continuity terminals are integrated as standard, to facilitate earthing requirements of system components to be connected to the wiring centre
- Pump live and neutral terminals with a 230V output make it simple to connect a manifold pump to the centre
- Separate boiler interlock terminals enable the boiler to be fired whether it requires a 230V supply or a volt-free connection to the boiler terminals via an internal relay
- With its 50 VA transformer, the 24V version allows up to 16 x 3W electrothermic heads to be controlled
- Eight wiring channels have been provided with clearly marked terminals and ample room for making connections
- Four loose 'cap' terminals have been provided which enables up to five electrothermic heads to be connected to two of the zone channels - more can be ordered
- The EWC-1 wiring centre can be housed inside manifold cabinets due to its specially protected enclosure rated at IP44
- The status of the system can be monitored with the LED's on the front of the casing without the need to open it. They show:
  - Power On
  - Boiler On
  - Pump On
  - 8 individual channel LED's showing a call for heat from the individual thermostats.
- Cable clamping for multiple cables is included with each centre for quicker and easier cable management

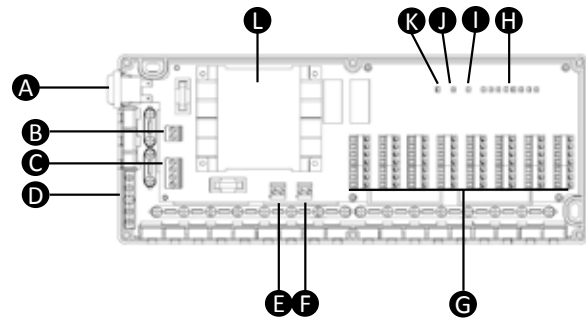
Both versions come in an elegantly styled case and will satisfy almost all hardwired applications for both radiant heating and cooling.

#### EWC-1 230V 8 Way Wiring Centre



- A: On/Off Switch  
 B: Protective Shield for Power in and Optional Programmer Terminals  
 C: Earth Bar  
 D: Pump Output (230V)  
 E: Boiler Interlock (Volt free)  
 F: 8 Channels to Accommodate Thermostat and Actuator Wiring  
 G: LED Zone on Indicators  
 H: Boiler On LED  
 I: Pump On LED  
 J: Power On LED

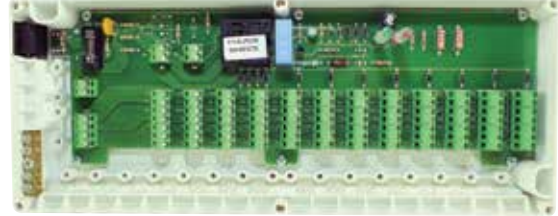
#### EWC-1 24V 8 Way Wiring Centre



- A: On/Off Switch  
 B: Main Live and Neutral Terminals  
 C: Optional External Programmer Terminal  
 D: Earth Bar  
 E: Pump Output (230V)  
 F: Boiler Interlock (Volt free)  
 G: 8 Channels to Accommodate Thermostat and Actuator Wiring  
 H: LED Zone on Indicators  
 I: Boiler On LED  
 J: Pump On LED  
 K: Power On LED  
 L: 230V to 24V Transformer

## EWC-2 Hard-wired wiring centres

230v 8-way & 12-way wiring centres specially designed for radiant heating and cooling applications



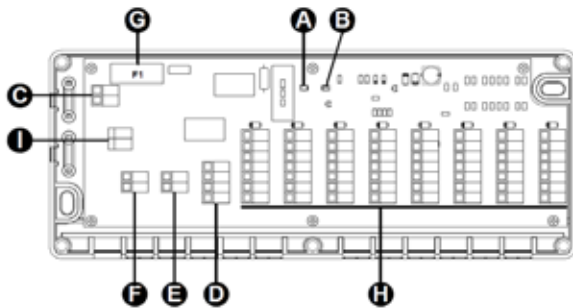
### Why you should choose Emmeti EWC-2 Wiring Centres

This new generation of EWC-2 wiring centres offers a host of features:

- There are two sizes available an 8 way and 12 way. This will allow centralised time control of up to 12 zones with a single timeswitch
- Night setback using a timeswitch can also be implemented with either live or neutral switching options catered for
- Earth continuity terminals are integrated as standard, to facilitate earthing requirements of system components to be connected to the wiring centre
- Pump live and neutral terminals with a 230V output make it simple to connect a manifold pump to the centre
- Separate boiler interlock terminals enable the boiler to be fired whether it requires a 230V supply or a volt-free connection to the boiler terminals via an internal relay
- Both the eight way and twelve way wiring channels have been provided with clearly marked terminals and ample room for making connections
- The LED's on the front of the wiring centre show:
  - Power On
  - Boiler / Pump On

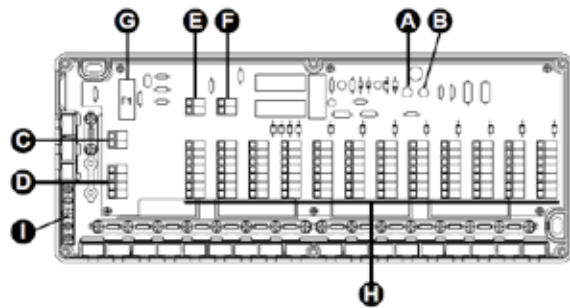
Both versions come in an elegantly styled case and will satisfy almost all hardwired applications for both radiant heating and cooling.

### EWC- 2 230V 8-way wiring centre



- A: Power On LED
- B: Boiler/Pump LED
- C: Power Supply Terminal L and N
- D: Optional External Control Terminals
- E: Pump Output Terminals
- F: Boiler Interlock Terminals
- G: Fuse (8A)
- H: 8 Thermostat and Actuator Channels
- I: Earth Terminals

### EWC- 2 230v 12-way wiring centre



- A: Power On LED
- B: Boiler/Pump LED
- C: Power Supply Terminal L and N
- D: Optional External Control Terminals
- E: Pump Output Terminals
- F: Boiler Interlock Terminals
- G: Fuse (8A)
- H: 12 Thermostat and Actuator Channels
- I: Earth Terminals

## Technical Product Guide

### EWC-4 Hard-wired wiring centres

230v 4 way wiring centres specially designed for radiant heating and cooling applications

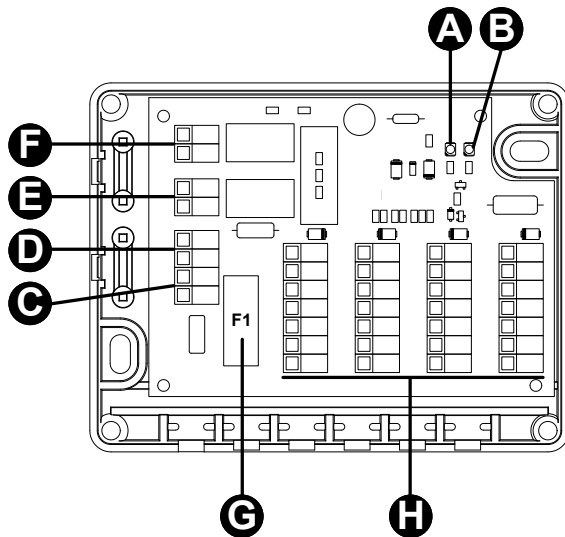


#### Why you should choose Emmeti EWC-4 Wiring Centres

The new generation EWC-4 is a more compact wiring centre designed for small UFH and WHR systems:

- Centralised time control over up to 4 room thermostat
  - Night setback using a time switch can also be implemented with either live or neutral switching options catered for.
  - Pump live and neutral terminals with a 230V output make it simple to connect a manifold pump to the centre.
  - Separate boiler interlock terminals enable the boiler to be fired whether it requires a 230V supply or a volt free connection to the boiler terminals via an internal relay.
  - Clearly marked terminals
- Visible LED's on the front of the wiring centre show:
    - Power On
    - Boiler / Pump On

#### EWC-4 230v 4 way wiring centre



- A: Power On LED
- B: Boiler/Pump LED
- C: Power Supply Terminals
- D: Terminals for connection of the external time switch (Optional)
- E: Pump Terminals (230V output)
- F Terminals for burner wiring (Volt free)
- G Fuse F1
- H 4 thermostats + actuators outputs (output 230V~)

## EWC-1 Hard-wired wiring centres with on-off switch (continued)

### EWC-1 Hard-wired wiring centres with on-off switch



Size	Pcs./Pack	Code
230V 8-way wiring centre with on-off switch	1	U9360010
24V 8-way wiring centre with on-off switch	1	U9360020

Wiring centres feature independent boiler and pump interlock relays, 8 zone connections (with loose terminal connections to enable up to five actuators to connect to each zone), on-off switch to enable safe working inside the wiring centre and to thermostat and actuator connections. Each circuit has an LED call for heat indicator. The centre includes connections for an external timeswitch to allow night set back operation for suitable thermostats, and includes a fully integrated earth connection.

The 24V version incorporates a 50VA transformer with capacity for up to 15 x 3W actuators. Both versions offer IP44 protection to enable siting inside a manifold cabinet.

\* Additional loose cap terminals can be obtained, code U9360030.

### Technical Data

Model:	230V EWC-1 Wiring Centre	24V EWC-1 Wiring Centre
Emmeti Code:	U9360010	U9360020
Dimension H x W x D (mm):	125 x 320 x 67	125 x 320 x 67
Weight	1000g	2047g
Power supply:	230VAC ±10% 50Hz	230VAC ±10% 50Hz
Fuse rating:	8A, load protection	8A, load protection; 4A, transformer protection
Ambient temperature range:	0 °C to 40 °C	0 °C to 40 °C
Storage temperature range:	-10 °C to 50 °C	-10 °C to 50 °C
Humidity limits	20% to 80% RH (non condensing)	20% to 80% RH (non condensing)
Enclosure rating	IP44	IP44
Thermostat and actuator connection channels:	8	8
Maximum number of actuators per channel	5	5
<b>Wiring Centre Outputs :</b>		
- Thermostats and actuators	230VAC	24VAC
- Pump**	230VAC	230VAC
- Boiler	Volt free	Volt free
- Timeswitch	230VAC	230VAC* or 24VAC
- Night setback	Volt free (live or neutral switching)	Volt free (live or neutral switching)
<b>Maximum electrical load:</b>		
- Total (thermostats and actuators)	2A	2A
- Each channel	1.25A	1.25A
- Pump	5A @250VAC	5A @250VAC
- Boiler	5A @250VAC	5A @250VAC
Compliant with EMC and LV directives:	EEC 2004/108 (EMC); 2006/95 (LVD); 2011/65 (RoHS2)	EEC 2004/108 (EMC); 2006/95 (LVD); 2011/65 (RoHS2)

\* On 24V models, note that when a 230V timeswitch is connected to the wiring centre, the wiring centre switch will not isolate the 230V supply to the timeswitch, but will isolate the 24V supply. The main isolator will therefore need to be switched off when working on the timeswitch.

\*\* There is a 2.5 minute time delay following a call for heat before the pump is energised

## Technical Product Guide

### EWC-2 Hard-wired wiring centres (continued)

#### EWC-2 Hard-wired wiring centres



Size	Pcs./Pack	Code
230V 8-way wiring centre	1	U9370001
230V 12-way wiring centre	1	U9370002

A more commercially priced option, the EWC-2 230v Wiring centres feature boiler and pump interlock relays, 8 zone and 12 zone connections. Includes a fully integrated earth connection, for fast and easy installation of pump or other earthed equipment. Incorporates a single interlock LED call for heat indicator for both the boiler and pump and also a power on LED.

The centre includes connections for an external time switch to allow night set back operation for suitable thermostats.

#### Technical Data

Model:	230V EWC-2 8 Way	230V EWC-2 12 Way
Emmeti Code:	U9370001	U9370002
Dimension H x W x D (mm):	100 x 245 x 60	125 x 320 x 67
Weight	520g	790g
Power supply:	230VAC ~ ±10% 50Hz	230VAC ~ ±10% 50Hz
Fuse rating:	8A, load protection	8A, load protection;
Ambient temperature range:	0 °C to 40 °C	0 °C to 40 °C
Storage temperature range:	-10 °C to 50 °C	-10 °C to 50 °C
Humidity limits	20% to 80% RH (non condensing)	20% to 80% RH (non condensing)
Enclosure rating	IP30	IP20
Thermostat and actuator connection channels:	8	12
Maximum number of actuators per channel	5*	5*
<b>Wiring Centre Outputs :</b>		
- Thermostats and actuators	230VAC	230VAC
- Pump*	230VAC, pre-wired	230VAC, pre-wired
- Boiler	Volt free	Volt free
- Timeswitch	230VAC	230VAC
- Night setback	Volt free (live or neutral switching)	Volt free (live or neutral switching)
<b>Maximum electrical load:</b>		
- Total (thermostats and actuators)	2.5A	3A
- Each channel	1A	1A
- Pump	5A @250VAC	5A @250VAC
- Boiler	1A @250VAC	1A @250VAC
Compliant with EMC and LV directives:	EEC 2004/108 (EMC); 2006/95 (LVD); 2011/65 (RoHS2)	EEC 2004/108 (EMC); 2006/95 (LVD); 2011/65 (RoHS2)

\* Loose cap terminals can be obtained to facilitate the connections of up to 5 actuators per channel; code U9360030

## EWC-4 Hard-wired wiring centres (continued)

### EWC-4 Hard-wired wiring centres



Size	Pcs./Pack	Code
230V 4-way wiring centre	1	U9380001

A compact wiring centre designed for connection to up to four heating zones. Up to four actuators can be wired to an individual zone. The EWC-4 wiring centre features boiler and pump interlock relays with on LEDs to identify when the system is calling for heat. The centre includes connections for an external time switch and is compatible with night setback thermostats.

Additional loose cap terminals can be obtained, code U9360030.

### Technical Data

<b>Model:</b>	<b>230V EWC-4 Wiring Centre</b>
Emmeti Code	U9380001
Dimension H x W x D (mm)	130 x 100 x 60
Weight	390g
Power Supply	230VAC +/- 10% 50Hz
Fuse Rating	4A Time delayed
Ambient temperature range	0C - 40°C
Storage temperature range	-10C - 50°C
Humidity Limits	20% - 80% RH (non condensing)
Enclosure rating	IP 30
Thermostat and actuator connection channels	4
Maximum number of actuators per channel	4
<b>Wiring Centre Outputs :</b>	
- Thermostats and actuators	230VAC
- Pump*	230VAC
- Boiler	Volt Free
- Timeswitch	230VAC
- Night setback	Volt free (live or neutral switching)
<b>Maximum electrical load:</b>	
- Total (thermostats and actuators)	3A
- Each channel	1A
- Pump*	5A@250VAC SPDT
- Boiler	1A@250VAC SPDT
Compliant with EMC and LV directives	EEC 2004/108 (EMC); 2006/95 (LVD); EN61000-6-1 (2007) EN61000-6-3 (2007); EN60335-1 (2012)

\* Loose cap terminals can be obtained to facilitate the connections of up to 4 actuators per channel; code U9360030

## Technical Product Guide

### EWC-1, EWC-2 and EWC-4 Hard-wired wiring centres

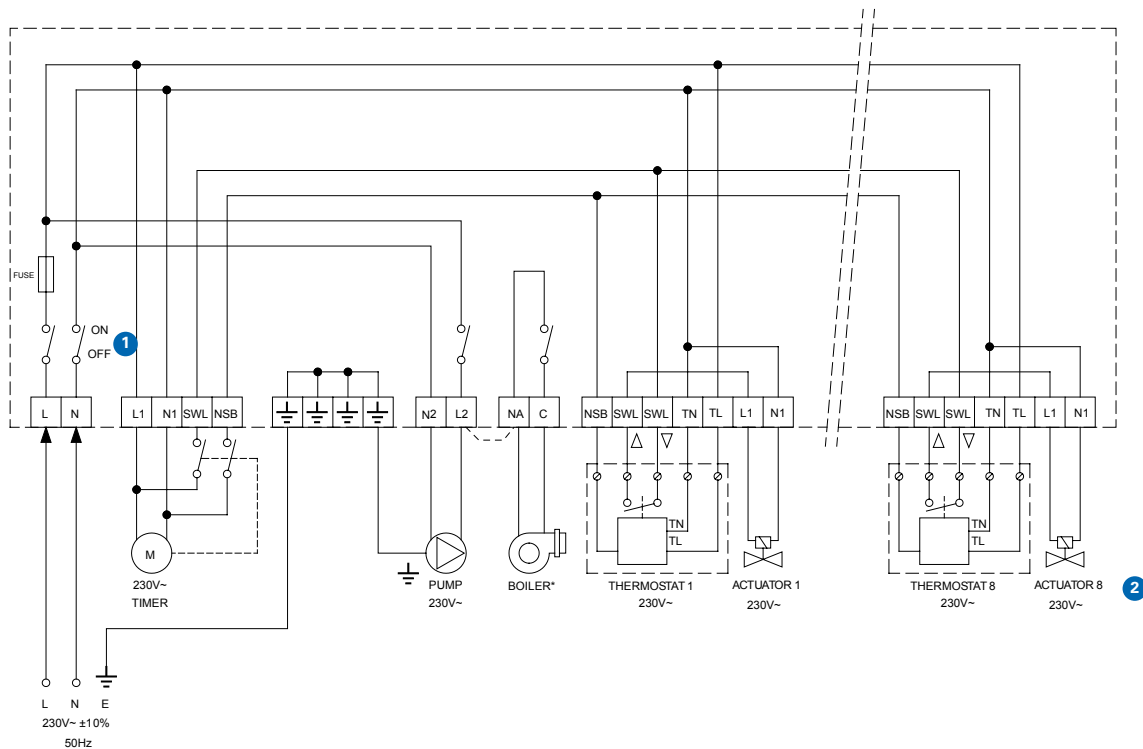
#### Zone terminal identification

1. NSB = Night Set Back Connection (if required) →
2. SWL > = Switched Live back from stat →
3. SWL < = Switched Live to external control (if required) →
4. TN = Neutral to thermostat →
5. TL = Live to thermostat →
6. L1 = Live to Electro-thermic actuator head →
7. N1 = Neutral to Electro-thermic actuator head →



Connections to the wiring centre should be made in accordance with the wiring diagrams shown below:

#### Wiring diagram to suit EWC-1, EWC-2 and EWC-4 230v versions



Note - where the boiler requires a 230V supply, connect terminal NA to pump terminal L2 - shown dotted - and remove connection between boiler and terminal NA (terminal NO on EWC-2 models).

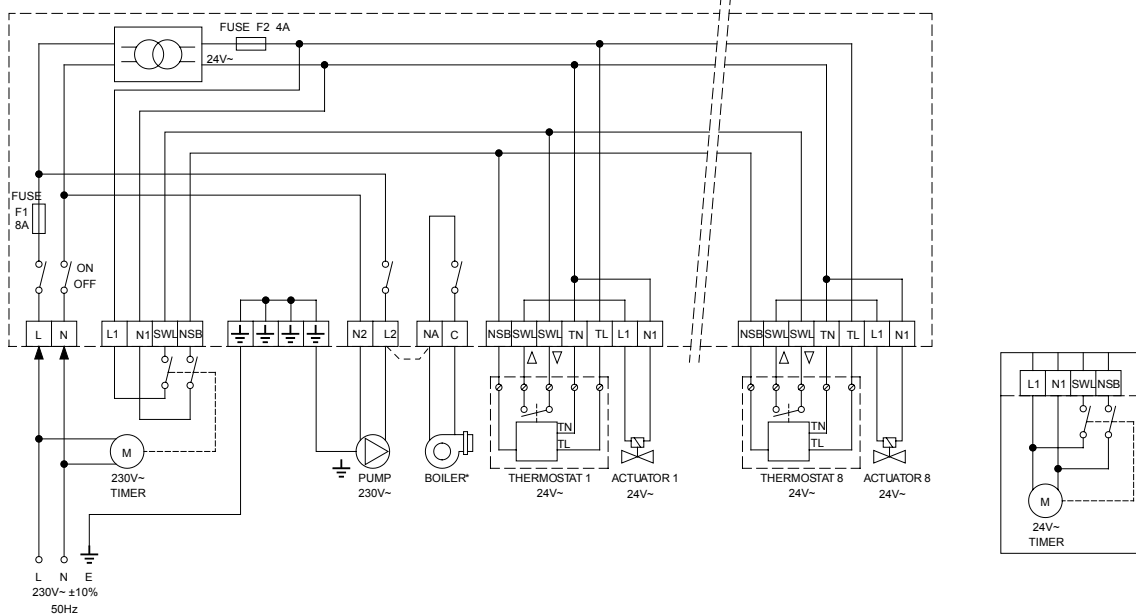
- 1 NB. The EWC-2 does not have an on off switch.
- 2 NB. The EWC-4 has 4 channels



## EWC-1, EWC-2 and EWC-4 Hard-wired wiring centres

Connections to the wiring centre should be made in accordance with the wiring diagrams shown below:

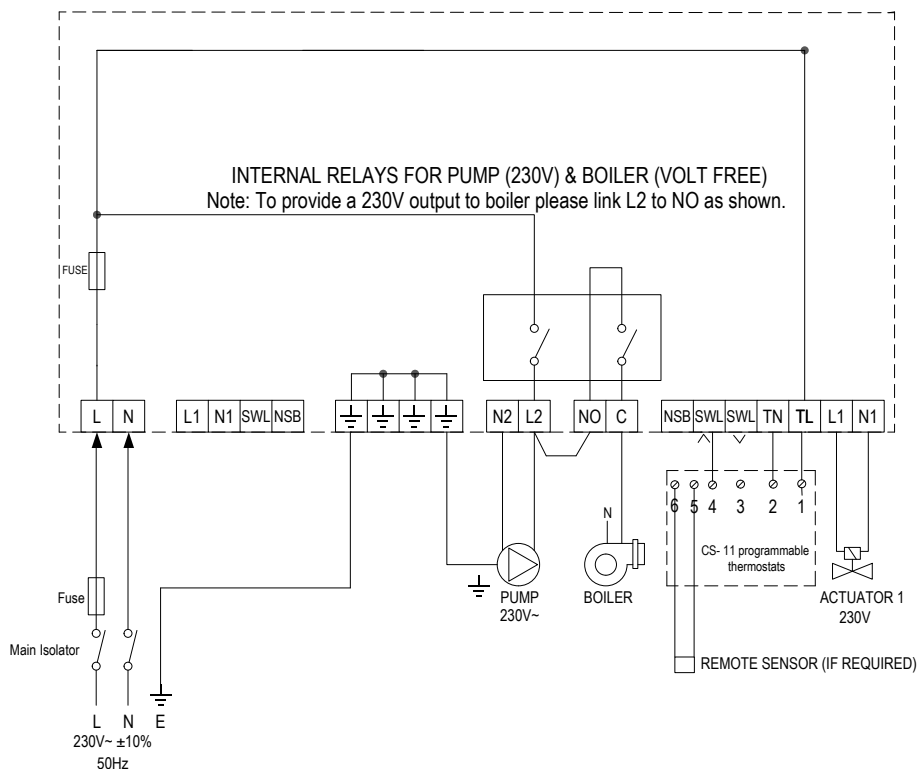
### Wiring Diagram to suit U9360020 EWC-1 24v 8-way wiring centre.



\* - where the boiler requires a 230V supply, connect terminal NA to pump terminal L2 -and remove connection between boiler and terminal NA.

Note: When working with a 230V timeswitch on the 24V wiring centre, the wiring centre switch will not isolate the power supply to the timeswitch. Switch off the main isolator before working on the timeswitch.

### Wiring diagram to suit EWC-1, EWC-2 and EWC-4 230v versions showing connections to Emmeti's CS-11 range of programmable thermostats



NB. EWC-1 has an on off switch