

## THISION L PLUS

- Commercial wall-hung boiler
- Single boiler range 60 to 200 kW
- Cascade solution up to 8 boilers
- Cascade solution up to 1600 kW
- Boiler pump(s) and cascade controller integrated
- External controls (accessory) by on/off, 0-10V or eBus to: Modbus, BACnet, KNX, LONworks

## System THISION L Plus with one variable temperature heating circuit, one constant temperature heating circuit control with Clip In 3 Zone.

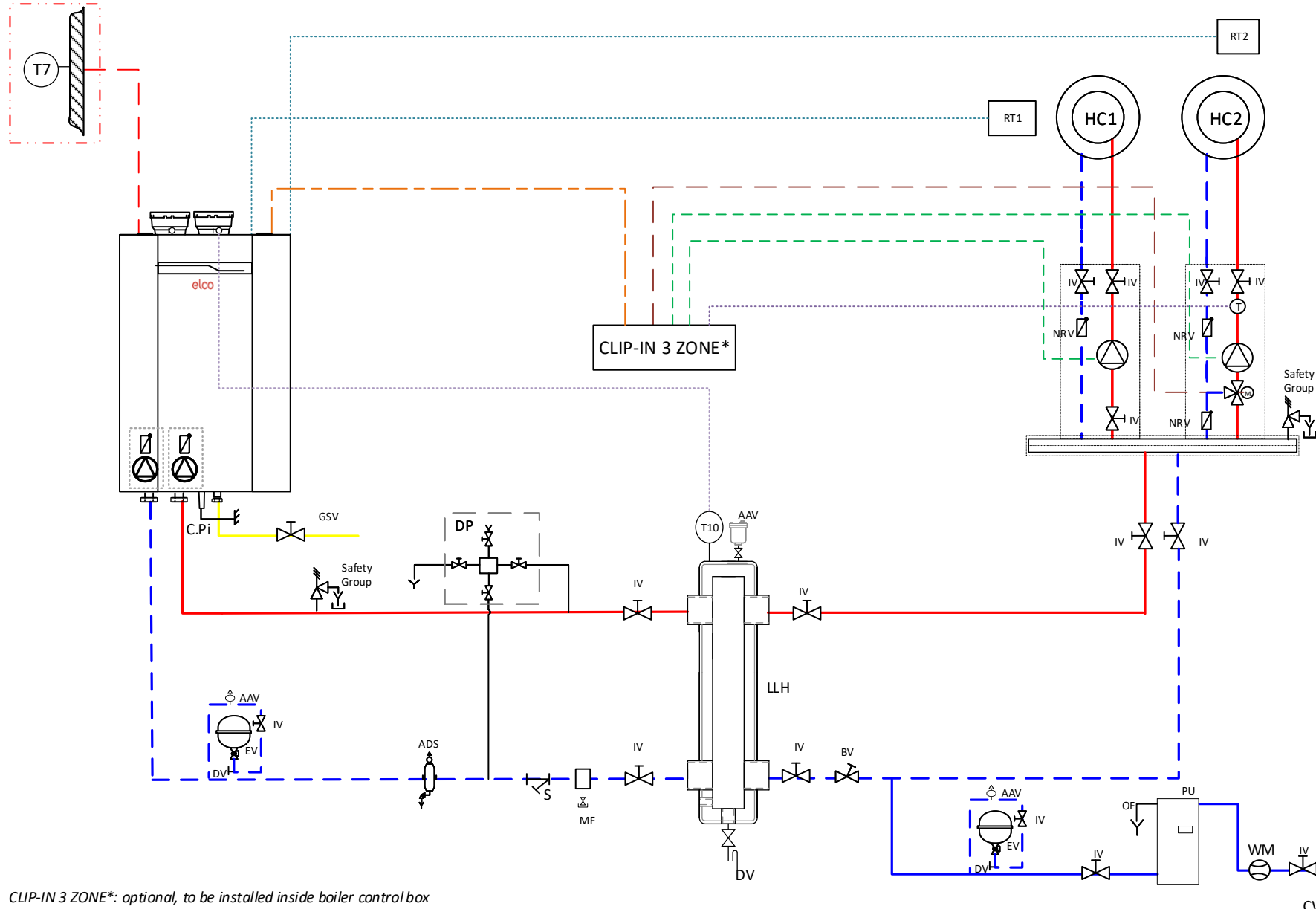
The condensing gas boiler THISION L PLUS operates on the heating circuit with adapted flow temperature corresponding to the outside temperature.

A plate heat exchanger or low loss header provide hydraulic separation between the primary and the secondary circuits.

The THISION L PLUS can control the constant temperature heating zone and variable temperature heating zone by the Clip-In 3 zone manager.

# Hydraulic Schematic

Optional



## Legend:

- Gas
- Return
- Flow
- - - Sensor
- - - BUS connection cable
- - - Pump cable
- - - Optional components
- - - Mixing valve cable

- AAV Automatic air vent
- ADS Air dirt separator
- BV Balancing valve
- C.Pi Condensing pipe
- CWS Cold water supply
- DP Dosing pot
- DV Drain valve
- EV Expansion vessel
- GSV Gas shut off valve
- HC Heating Circuit
- IV Isolation valve
- LLH Low loss header
- MF Dirt separator magnetic filter
- NRV Non return valve
- OF Overflow pipe
- PU Pressurization unit
- RT1/RT2 Room thermostat (on/off)
- S Strainer
- T Flow sensor
- T10 Common sensor flow
- T7 Outdoor sensor
- WM Water meter

CLIP-IN 3 ZONE\*: optional, to be installed inside boiler control box

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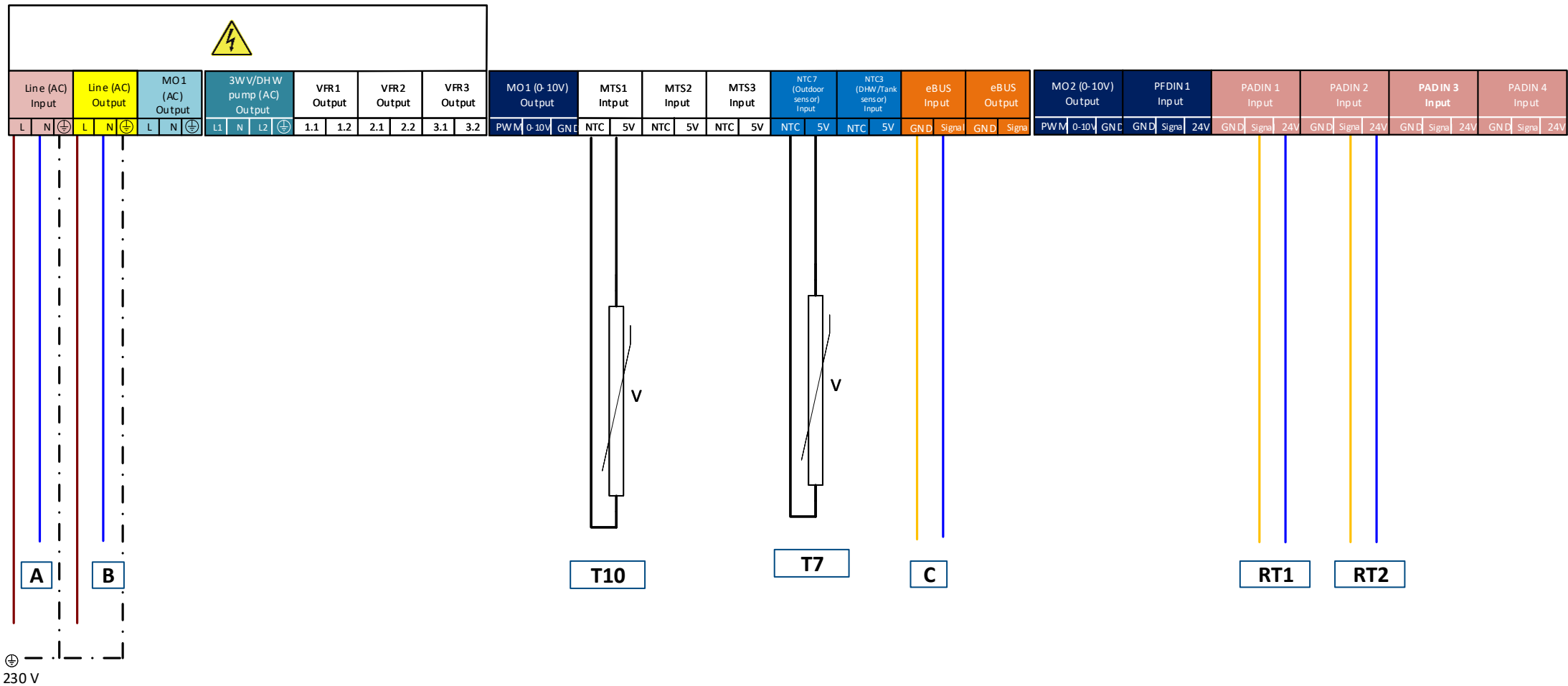
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Elco\_Th\_UK\_EN\_1: Elco Thision L Plus + 1 Mixing circuit +1 Direct circuit + Low loss header

This schematic is designed to be used for general guidance and not to be considered as a design drawing.



# Electrical connections



## Legend:

**A :** Main power supply (230V @ 50Hz)

**B :** Clip In power (230V @ 50Hz)

**T10:** Common flow temperature sensor (10KΩ)

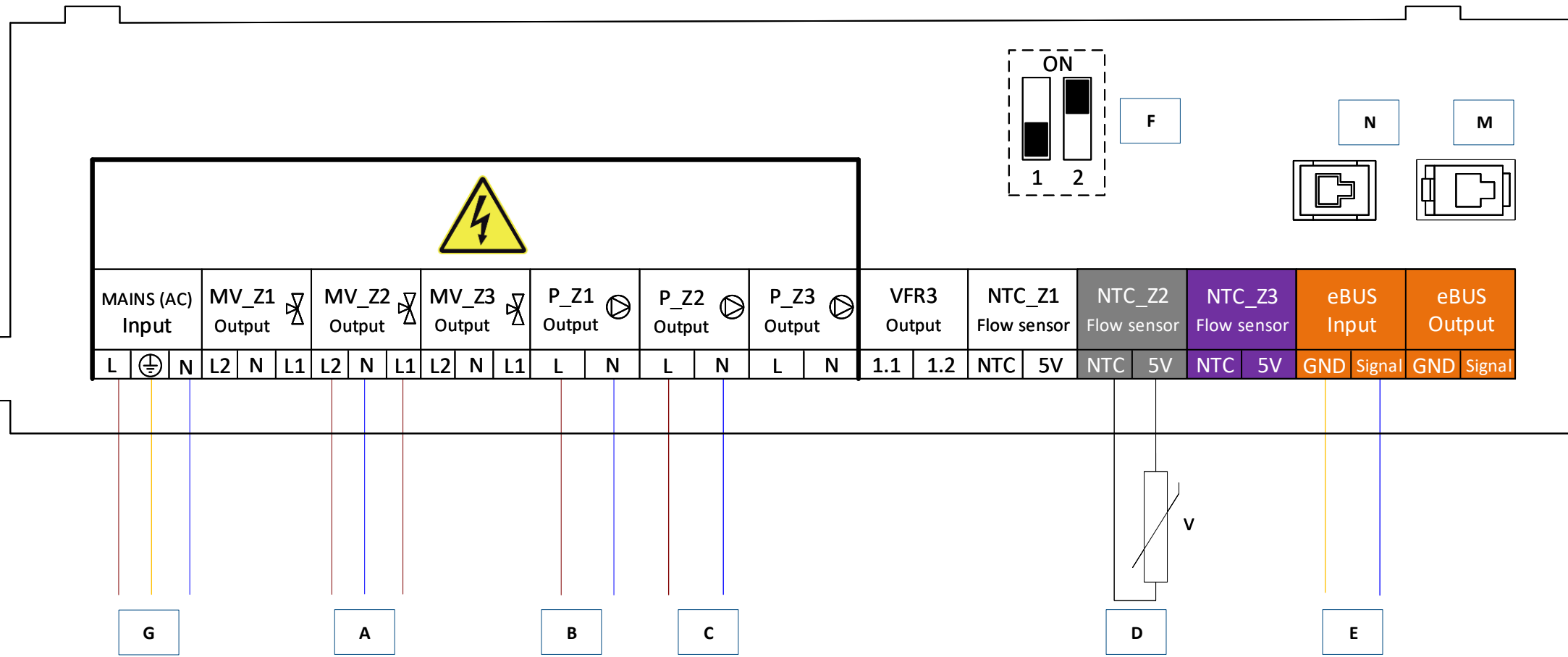
**C :** Clip-In 3 zone

**RT1:** Room thermostat (On/Off )

**RT2:** Room thermostat (On/Off )

**T7 :** Outdoor sensor (optional)(1KΩ )

# Clip-in 3 zone manager connection



## Legend:

- A** : Mixing Valve HC2
- B** : Heating circuit pump HC1
- C** : Heating circuit pump HC2
- D** : Flow sensor HC2
- E** : Clip In connection to boiler Ebus Input
- F** : DIP-switch 2 must be set in ON position
- G** : Main power connection to boiler board
- MV** : Mixing valves
- P\_Z** : Heating Circuit Pumps
- NTC** : Zone flow sensor
- M** : Main PCB Servicetool (only for Service)
- N** : Connection Clip-in (only for Service)

# Parameter list

	Menu	Parameter	Description	To be adjusted	Range	Factory setting
Boiler Parameter	Boiler configuration	0.2.0	Undefined Single boiler Master boiler + cascade Slave boiler 1 Slave boiler 2 Slave boiler 3 Slave boiler 4 Slave boiler 5 Slave boiler 6 Slave boiler 7	Single boiler	0-10	0
	MTS1 input	24.6.0	Common flow sensor (T10)	1	0-8	1
	PADIN1 input	24.6.4	Room thermostat HC1	1	0-9	0
	PADIN2 input	24.6.5	Room thermostat HC2	2	0-9	0
	Thermoregulation	24.4.0	0 = OFF, 1 = ON	up to user	0-1	1
Zone 1 Parameter	Hydraulic scheme	7.2.0	20= Undefined 21= 1 mix zone 22= 2 direct zone 23= 1 direct zone + 1 mix 24= 2 mix zone 25= 3 direct zone 26= 2 direct zone + 1 mix zone 27= 1 direct zone + 2 mix zone 28= 3 mix zone	23	20-28	20
	T Day	4.0.0	Room temperature set point for day period	up to user	10- 30 °C	21
	T Night	4.0.1	Room temperature set point for night period	up to user	10- 30 °C	16
	T set Z1	4.0.2	Temperature setpoint zone 1	up to user	40°C to 90°C 20°C to 45°C	85 20
	Zone temperature range	4.2.0	0 = Low Temp (LT) 1 = High Temp (HT)	1	0-1	1
	Thermoregulation	4.2.1	0 = Fix Flow T 1 = Basic Thermoregulation 2 = Room T Only 3 = Outdoor T Only 4 = Room+Outdoor T	3	0-4	0
	Slope	4.2.2		up to user	LT: From 0.2 - 1.0 HT: From 1.0 - 3.5	0.6LT 1.3HT
	Max T	4.2.5	Zone 1 Maximum Flow Temperature	up to user	LT: From 20°C to 45°C HT: From 20°C to 90°C	45°C 85°C
	Min T	4.2.6	Zone 1 Minimum Flow Temperature	up to user	LT: From 20°C to 45°C HT: From 40°C to 90°C	25°C 40°C
	Quick night setback	4.2.8	0 = OFF, 1 = ON	up to user	0-1	0
	T Day	5.0.0	Room temperature set point for day period	up to user	10- 30 °C	21
	T Night	5.0.1	Room temperature set point for night period	up to user	10- 30 °C	16
	T set Z2	5.0.2	Temperature setpoint zone 2	up to user	40°C to 90°C 20°C to 45°C	85 20
	Zone temperature range	5.2.0	0 = Low Temp (LT) 1 = High Temp (HT)	1	0-1	1
Thermoregulation	5.2.1	0 = Fix Flow T 1 = Basic Thermoregulation 2 = Room T Only 3 = Outdoor T Only 4 = Room+Outdoor T	3	0-4	0	
Slope	5.2.2		up to user	LT: From 0.2 - 1.0 HT: From 1.0 - 3.5	0.6LT 1.3HT	
Max T	5.2.5	Zone 2 Maximum Flow Temperature	up to user	LT: From 20°C to 45°C HT: From 20°C to 90°C	45°C 85°C	
Min T	5.2.6	Zone 2 minimum Flow Temperature	up to user	LT: From 20°C to 45°C HT: From 40°C to 90°C	25°C 40°C	