5.2.3 Double zone control

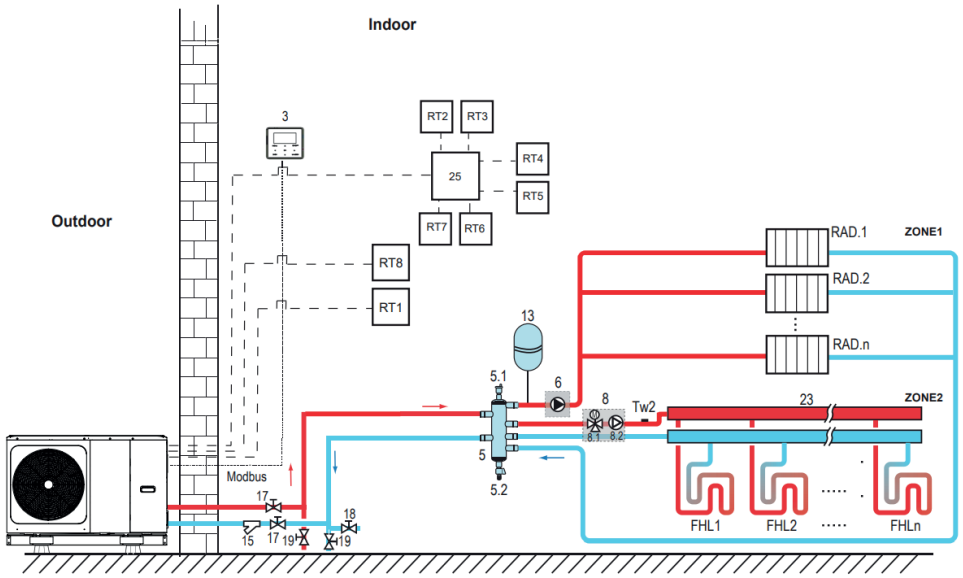

Figure 1-5.4: Application 2-Double zone control

Legend			
1	Outdoor unit	17	Shut-off valve (Field supply)
3	User interface	17	Shut-off valve (Field supply)
5	Balance tank (Field supply)	18	Filling valve (Field supply)
5.1	Automatic bleed valve	19	Drainage valve (Field supply)
5.2	Drainage valve	23	Collector/distributor (Field supply)
6	P_o: Zone A circulation pump (Field supply)	25	Hydraulic adapter box (Optional)
8	Mixing station (Field supply)	RT 1...7	Low voltage room thermostat (Field supply)
8.1	SV3: Mixing valve (Field supply)	RT8	High voltage room thermostat (Field supply)
8.2	P_c: zone 2 circulation	FHL1...n	Floor heating loop (Field supply)
13	Expansion vessel (Field supply)	Tw2	Zone 2 water flow temperature sensor (Optional)
15	Filter (Accessory)	RAD.1...n	Radiator (Field supply)

Notes:

1. The example is just for application illustration; please confirm the exact installation method according to the installation manual.

Space heating

Zone1 can operate in cooling mode or heating mode, while zone2 can only operate in heating mode; While installation, for all thermostats in zone1, only “H、L” terminals need to be connected. For all thermostats in zone2, only “C、L” terminals need to be connected.

1) The ON/OFF of zone1 is controlled by the room thermostats in zone1. When any “HL” of all thermostats in zone1 closes, zone1 turns ON. When all “HL” turn OFF, zone1 turns OFF; Target temperature and operation mode are set on the user interface;

2) In heating mode, the ON/OFF of zone2 is controlled by the room thermostats in zone2. When any ”CL” of all thermostats in zone2 closes, zone2 turns ON. When all “CL” open, zone2 turns OFF. Target

temperature is set on the user interface; Zone 2 can only operate in heating mode. When cooling mode is set on the user interface, zone2 keeps in OFF status.

The circulation pump operation

When zone 1 is ON, P_o(6) starts running; When zone 1 is OFF, P_o(6) stops running;

When zone 2 is ON, SV3(8.1) is ON, P_c(8.2) starts running; When zone 2 is OFF, SV3(8.1) is OFF, P_c(8.2) stops running .

The floor heating loops require a lower water temperature in heating mode compared to radiators. To achieve these two set points, a mixing station is used to adapt the water temperature according to requirements of the floor heating loops. The radiators are directly connected to the unit water circuit and the floor heating loops are after the mixing station. The mixing station is controlled by the unit.