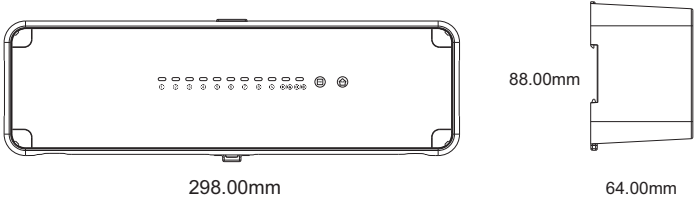


H128-CC | Zoneregeling

Installatievoorschriften

Specificaties:

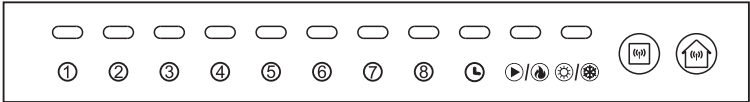
Voedingsbron: 150-250VAC 50/60Hz
Maximale stroom: 10A
Belastingsstroom uitgang: 250VAC 8(5)A
Bedrijfstemperatuur: 0°C~50°C, 0-80%RH
Opslagtemperatuur: -10°C~60°C, 0-90%RH
Afmetingen: 298mm x 88mm x 64mm



Kenmerken:

- Deze Centrale Controller (CC) kan maximaal 8 zones bedienen.
- Ondersteunt tot maximaal 64 actuatoren, met een maximum van 10 actuatoren per zone.
- Bevat uitgangen voor het schakelen van thermische actuator, boiler, pomp en zone-actuatoren.
- Indicatie LEDs geven de status van de uitgangen aan.
- Geschikt voor koelen en verwarmen
- Cascade-link bedraad of draadloos tot max. 7 slave-CC's (draadloos is optie)
- Let op RF-antenne vrij hangen van opstakels.

LED weergave:



- ①~⑧ Geeft de zonestatus aan. Rood is verwarmen, Blauw is koelen.
- ⌚ Geeft warmwaterafgifte aan.
- ▶/⬅ Geeft de zonestatus aan. Rood is verwarmen, Blauw is koelen. Blauw betekent dat de pompuitgang actief is magenta betekent dat beide uitgangen actief zijn
- ⊕/⊖ Geeft de Koel/warmtemodus aan. Rood is verwarmen, Blauw is koelen
- Ⓜ Drukknop
- Ⓢ Drukknop

Dipschakelaar instellingen:

- Zone 1-Zone 8:** Zones die niet gekoeld mogen worden, zoals badkamer, kunnen hier worden uitgezet. ON betekent koelen toestaan, OFF betekent koelen niet toestaan.
- Adres Toewijzen:** Deze Functie is bedoeld voor het Cascade-systeem. in totaal kunnen er 7 CC's als slave CC's worden gekoppeld. Als uw slave-cc het adres 1 is dan zet u de dipschakelaar op positie 1. Heeft de slave-cc het adres 5, zet de dipschakelaar dan op posities 1 en 4. Als de slave-cc het adres 7 heeft, zet de dipschakelaar dan op positie 1,2 en 4. *De Master CC heeft altijd adres 0.
- Pump control:** In een cascadesysteem, waarbij meerdere CC's samenwerken, kan de regeling voor het aansturen van pompen op verschillende manieren worden ingericht. Alleen in te stellen op slave-cc's! "M" betekent een pomp voor hele systeem, pomp sturing aansluiten op master-CC. deze instelling wordt gebruikt bij open verdeler met warmtepomp. "S" betekent verschillende pompen. Deze instelling wordt gebruikt bij verdeler met pomp.
- Boiler & pump delay:** Ketel en pomp vertraagd inschakelen. "0" betekent dat de ketel, pomp en actuatoren tegelijkertijd worden aangestuurd. "3" betekent dat eerst de actuator wordt geopend en de ketel en pomp pas na 3 minuten worden ingeschakeld.
- Cascade verbinding:** Hier kunt u instellen of huidige CC master of slave-cc is. "M" betekent master-cc, "S" betekent slave-cc. Er kan maar 1 CC master-cc zijn.
- Thermostaat controle:** Changeover tussen koelen en verwarmen kan worden geregeld door de H128-T thermostaat of een extern apparaat. "ON" betekent dat de warmte- of koelmodus wordt aangestuurd door de H128-T thermostaat, waarbij de 1ste thermostaat op de 1ste CC de masterthermostaat wordt. "OFF" betekent dat de warmte- of koelmodus wordt aangestuurd door een extern apparaat, bijv. door een warmtepomp.
- Systeem:** Kies "H" bij alleen verwarmen. Kies "H/C" bij verwarmen en koelen.

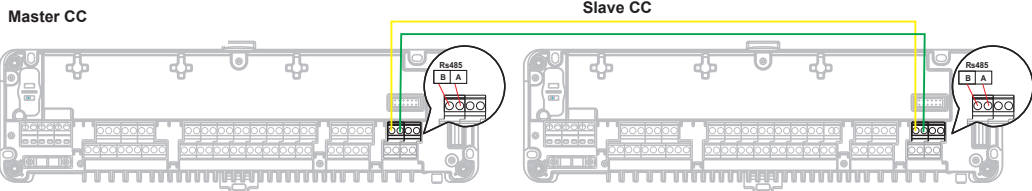
Dipschakelaar instellingen:		
= fabrieksinstelling		
Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

Cascade-systeem (1 master-cc en 7 slave-cc's):

Wanneer U meerdere CC's gebruikt, moeten ze onderling bedraad of draadloos worden verbonden.

Cascade-systeem Bedraad

Sluit verschillende CC's aan via een kabel en configureer CC adressen met behulp van de dipschakelaar.



Dipschakelaar instellingen Master-CC

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

Dipschakelaar instellingen Slave-CC

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

Dipschakelaarinstellingen voor Slave-CC:

Adres 1: Zet de dipschakelaar op positie 1.

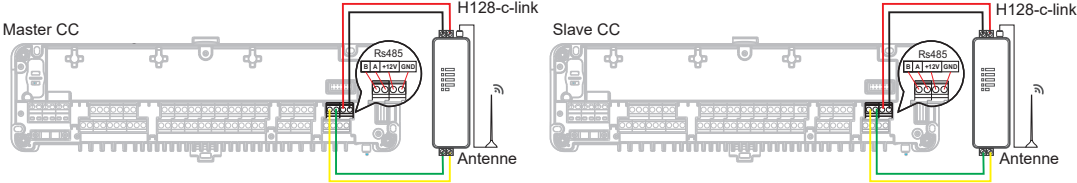
Adres 2: Zet de dipschakelaar op positie 2

Adres 3: zet de dipschakelaar op positie 1 en 2

Master is altijd adres 0

Cascade-systeem draadloos (optie H128-C-Link is los te bestellen):

Verbind verschillende CC's via draadloos met elkaar. Sluit de draden aan op de H128-c-link volgens het voorbeeld dat wordt aangegeven en configureer CC adressen met behulp van de dipschakelaar.



Dipschakelaar instellingen Master-CC

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

Dipschakelaar instellingen Slave-CC

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

Dipschakelaarinstellingen voor Slave-CC:

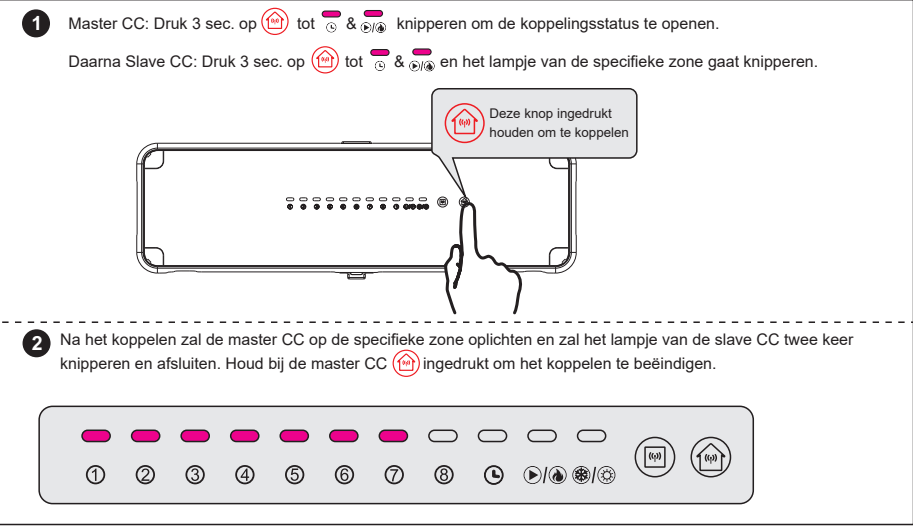
Adres 1: Zet de dipschakelaar op positie 1.

Adres 2: Zet de dipschakelaar op positie 2

Adres 3: zet de dipschakelaar op positie 1 en 2

Master is altijd adres 0

Koppelen met H128-C-Link:



Foutmeldingen:

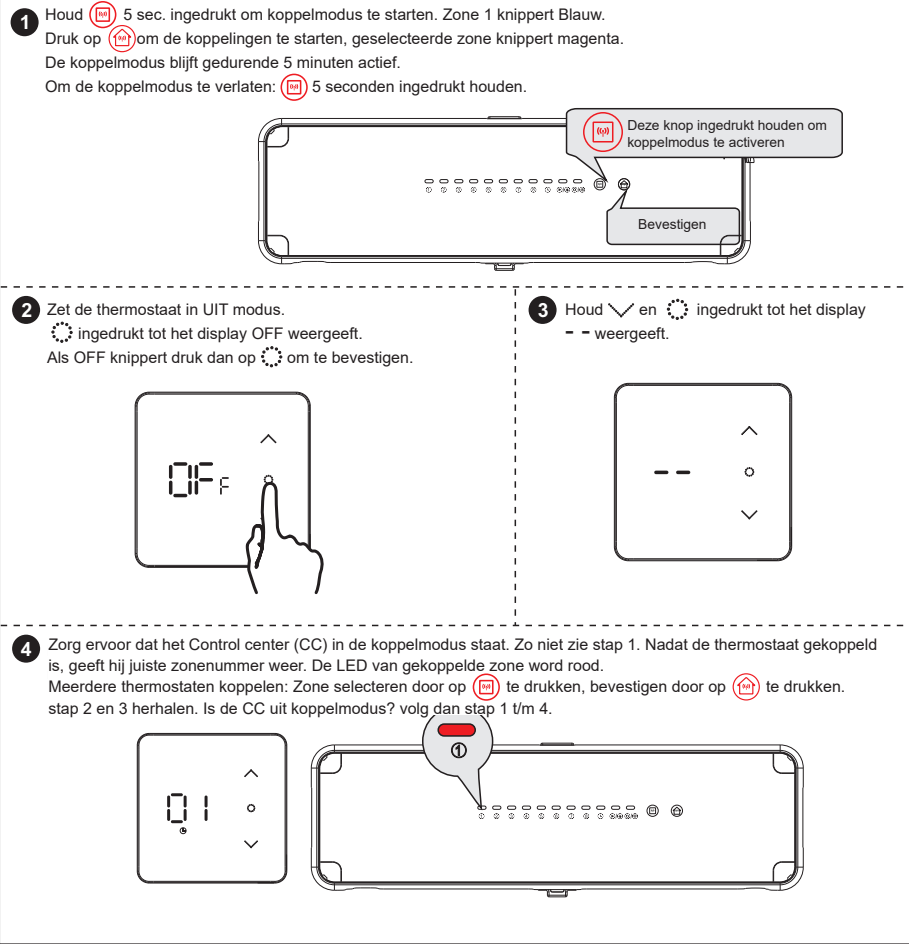
Alarm	Omschrijving:	Actie:
	Dit alarm betekent dat de systeemselectie verschillend is. Dit gebeurt alleen bij gebruik van de Cascade link functie om verschillende zoneregelingen te koppelen.	Dipschakelaar H/C en H moeten ervoor zorgen dat alle bedrading in dezelfde stand staan.
	Als je koppelt met een H128-c-link, blijft het lampje knipperen, dit betekent dat de adresselectie niet goed is.	Als deze CC de master is, moet het adres 0 zijn. Als dit bedradingscentrum slave is, kan het adres niet op 0 worden ingesteld.
	Geen verbinding tussen Thermostaat en CC, de specifieke zone zal rood oplichten.	Controleer en koppel de thermostaat opnieuw.

Fabrieksreset: Druk 5 keer snel achter elkaar op tot zone 1-8 afwisselend rood en blauw knipperen.

Na het voltooien van de fabrieksreset keert de CC terug naar de stand-bymodus.

Koppelen met thermostaat:

TIP: Alle thermostaten verzamelen en dichtbij CC houden voor eenvoudig en snelle te koppeling.



MODBUS universele interfaceprotocollen

Bediening:

UFH Pump

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

UFH Pump

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

1

Alle bedradingscentra moeten worden ingesteld op "S" in de optie Cascade link.

2

Het adres van het bedradingscentrum is gebaseerd op de instelling:

• Als uw controller adres 1 is, zet dan de dipschakelaar in stand 1.

• Als de controller adres 5 heeft, zet u de dipschakelaar in de stand 1 en 4.

• Als de controller adres 7 heeft, zet de dipschakelaar dan op positie 1, 2 en 4.

Basic description

Number	Parameter	Protocol provision
1	Operating mode	RS-485, master-slave, wiring center is the slave
2	Physical interface	A(+), B(-) two-wire system
3	Baud rate	9600
4	Byte format	10 format (1 start bit+8 data bits +1 stop bit)
5	Transmission mode	RTU format (consult MODBUS standard)
6	Wiring center address	1-7
7	Command code	3, 6,16 (3—read data, 6—set data,16-set multiple data)
8	CRC check code	CRC-16 (consult MODBUS standard)
9	CRC verification	CRC-16 (consult MODBUS standard)
10	Data frame interval	2 seconds

Thermostat 1

Number	Parameter	Read/Write	Instruction
0000	Thermostat and wiring center communication states	R	0: Non-paired 1:Paired
0001	RF communication states	R	0: Loss communication 1: communication
0002	Thermostat control	R	0: Wiring center control 1: External devices
0003	System selection	R	0: Heating only 1: Heating/Cooling
0004	ON/OFF	R/W	0: OFF 1: ON
0005	Mode	R/W	0 : Heat 1 : Cool
0006	Set temperature	R/W	5~35°C
0007	Room temperature	R	
0008	Output	R	0: Stop 1: cooling output 2: heating output
0009	Sensor alarm	R	0: Non 1: Internal sensor alarm 2: external sensor alarm
0010	Low battery alarm	R	0: Non 1: Low battery alarm

Thermostat 2

Number	Parameter	Read/Write	Instruction
0016	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0017	RF communication states	R	0: Loss communication 1: communication
0018	Thermostat control	R	0 : Wiring center control 1 : External devices
0019	System selection	R	0 : Heating only 1 : Heating/Cooling
0020	ON/OFF	R/W	0 : OFF 1 : ON
0021	Mode	R/W	0 : Heat 1 : Cool
0022	Set temperature	R/W	5~35°C
0023	Room temperature	R	0: Loss communication 1: communication
0024	Output	R	0 : Stop 1 : cooling output 2 : heating output
0025	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm
0026	Low battery alarm	R	0 : Non 1 : Low battery alarm

Thermostat 3

Number	Parameter	Read/Write	Instruction
0032	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0033	RF communication states	R	0: Loss communication 1: communication
0034	Thermostat control	R	0 : Wiring center control 1 : External devices
0035	System selection	R	0 : Heating only 1 : Heating/Cooling
0036	ON/OFF	R/W	0 : OFF 1 : ON
0037	Mode	R/W	0 : Heat 1 : Cool
0038	Set temperature	R/W	5~35°C
0039	Room temperature	R	
0040	Output	R	0 : Stop 1 : cooling output 2 : heating output
0041	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm
0042	Low battery alarm	R	0 : Non 1 : Low battery alarm

Thermostat 4

Number	Parameter	Read/Write	Instruction
0048	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0049	RF communication states	R	0: Loss communication 1: communication
0050	Thermostat control	R	0 : Wiring center control 1 : External devices
0051	System selection	R	0 : Heating only 1 : Heating/Cooling
0052	ON/OFF	R/W	0 : OFF 1 : ON
0053	Mode	R/W	0 : Heat 1 : Cool
0054	Set temperature	R/W	5~35°C
0055	Room temperature	R	
0056	Output	R	0 : Stop 1 : cooling output 2 : heating output
0057	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm
0058	Low battery alarm	R	0 : Non 1 : Low battery alarm

Thermostat 5

Number	Parameter	Read/Write	Instruction
0064	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0065	RF communication states	R	0: Loss communication 1: communication
0066	Thermostat control	R	0 : Wiring center control 1 : External devices
0067	System selection	R	0 : Heating only 1 : Heating/Cooling
0068	ON/OFF	R/W	0 : OFF 1 : ON
0069	Mode	R/W	0 : Heat 1 : Cool
0070	Set temperature	R/W	5~35°C
0071	Room temperature	R	
0072	Output	R	0 : Stop 1 : cooling output 2 : heating output
0073	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm
0074	Low battery alarm	R	0 : Non 1 : Low battery alarm

Thermostat 6

Number	Parameter	Read/Write	Instruction
0080	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0081	RF communication states	R	0: Loss communication 1: communication
0082	Thermostat control	R	0 : Wiring center control 1 : External devices
0083	System selection	R	0 : Heating only 1 : Heating/Cooling
0084	ON/OFF	R/W	0 : OFF 1 : ON
0085	Mode	R/W	0 : Heat 1 : Cool
0086	Set temperature	R/W	5~35°C
0087	Room temperature	R	
0088	Output	R	0 : Stop 1 : cooling output 2 : heating output
0089	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm
0090	Low battery alarm	R	0 : Non 1 : Low battery alarm

Thermostat 7

Number	Parameter	Read/Write	Instruction
0096	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0097	RF communication states	R	0: Loss communication 1: communication
0098	Thermostat control	R	0 : Wiring center control 1 : External devices
0099	System selection	R	0 : Heating only 1 : Heating/Cooling
0100	ON/OFF	R/W	0 : OFF 1 : ON
0101	Mode	R/W	0 : Heat 1 : Cool
0102	Set temperature	R/W	5~35°C
0103	Room temperature	R	
0104	Output	R	0 : Stop 1 : cooling output 2 : heating output
0105	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm

*There is 5 minutes communication delay between controller and Modbus

*The Max. Wiring center when connected Modbus would be 7 pcs

*Mode (cool/heat) set by Modbus only

*Cascade link and Modbus is optional

*Read/Write data should be one by one.

Installatie:

1 Schakel de groep uit in de meterkast

2 Verwijder de behuizing

3 a. Bevestigen aan de muur

b. Bevestigen op een DIN rail

4 a. Schroefklemmen

b. Trekontlasting voor kabel

5 Trekontlasting voor kabel

6 Zekeringhouder (5x20mm, 250V 10A)

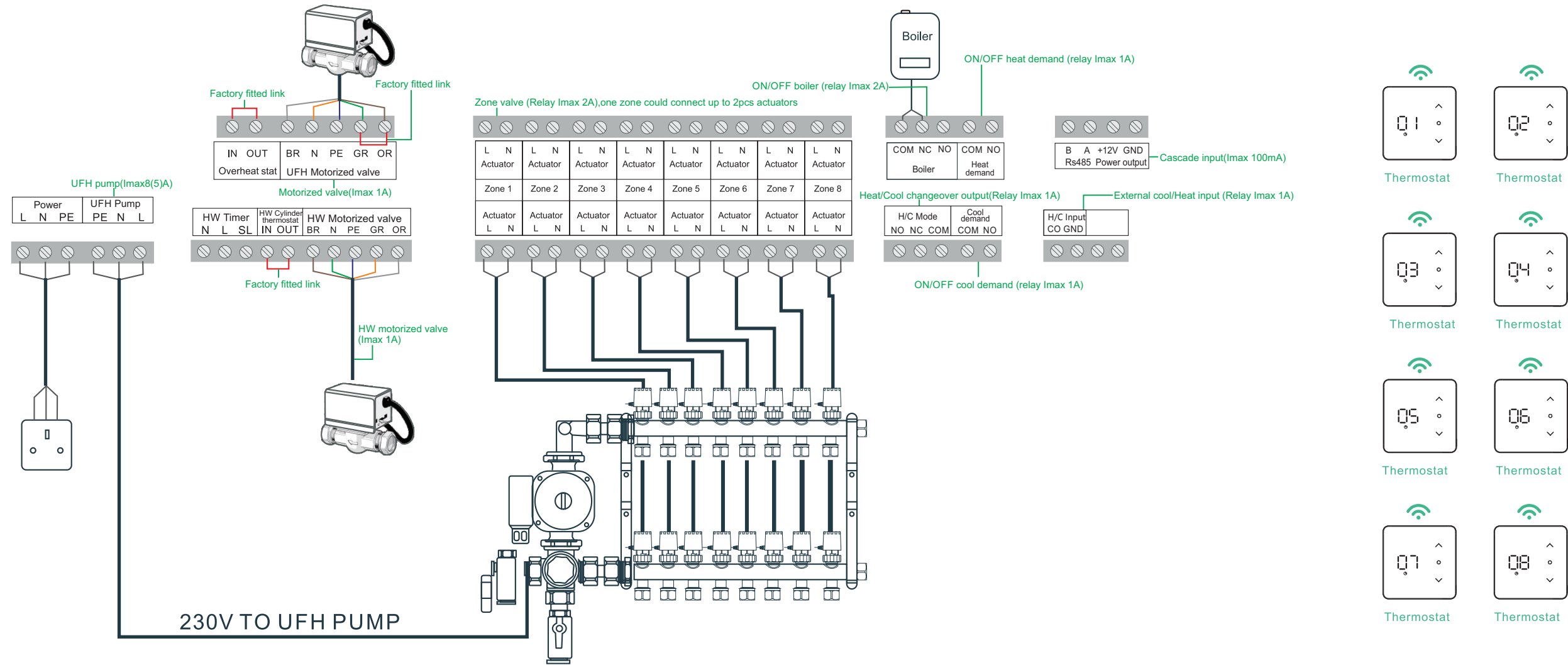
7 a. Aansluiting antenne

b. Plaatsing antenne

8 Plaats behuizing terug

9 Groep inschakelen

Aansluitschema:

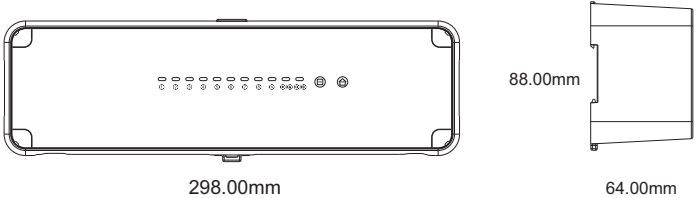


H128-CC | Zone control

Installation instructions

Specifications:

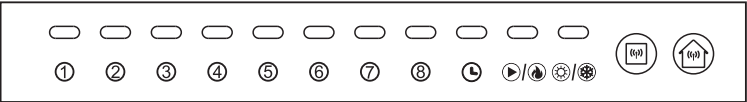
Power source: 150-250VAC 50/60Hz
Maximum current: 10A
Load current output: 250VAC 8(5)A
Operating temperature: 0oC~50oC, 0-80%RH
Storage temperature: -10oC~60oC, 0-90%RH
Dimensions: 298mm x 88mm x 64mm



Kenmerken:

- This Central Controller (CC) can control up to 8 zones.
- Supports up to 64 actuators, with a maximum of 10 actuators per zone.
- Contains outputs for switching thermal actuator, boiler, pump and zone actuators.
- Indication LEDs show the status of the outputs.
- Suitable for cooling and heating
- Cascade-link wired or wireless up to 7 slave CCs max (wireless is optional)
- Note RF antenna hang clear of obstructions.

LED display:



- 1、①~⑧ Indicates zone status. Red is heating, Blue is cooling.
- 2、⌚ Indicates hot water output.
- 3、▶/⚡ Red means heating or cooling output is active
Blue means pump output is active
Magenta means both outputs are active
- 4、⊕/⊗ Indicates Cool/Warm mode. Red is heating, Blue is cooling
- 5、[M] Push button
- 6、[S] Push button

Dip switch settings:

- Zone 1-Zone 8:** Zones that should not be cooled, such as bathroom, can be turned off here.
ON means allow cooling ,
OFF means do not allow cooling.
- Assign address:** This Function is intended for the Cascade system. a total of 7 CCs can be linked as slave CCs.
If your slave CC is address 1 then set the dip switch to position 1.
If the slave CC is address 5, set the dip switch to positions 1 and 4.
If the slave-cc has the address 7, set the dip switch to positions 1,2 and 4.
*The master CC always has address 0.
- Pump control:** In a cascade system, where several CCs work together, the control of pumps can be set up in different ways. Only to be set up on slave CCs!
'M' means one pump for entire system, pump control connect to master CC. this setting is used for open manifold with heat pump.
'S' means several pumps. This setting is used for distributor with pump.
- Boiler & pump delay:** Boiler and pump delayed activation.
'0' means that the boiler, pump and actuators are switched on at the same time.
'3' means that the actuator is opened first and the boiler and pump are only switched on after 3 minutes.
- Cascade link:** Here you can set whether current CC is master or slave-cc.
'M' means master-cc,
'S' means slave-cc.
Only 1 CC can be master-cc.
- Thermostat control:** Changeover between cooling and heating can be controlled by the H128-T thermostat or an external device.
'ON' means that the heat or cooling mode is controlled by the H128-T thermostat, with the 1st thermostat on the 1st CC becoming the master thermostat.
OFF' means that the heat or cooling mode is controlled by an external device, e.g. by a heat pump.
- System:** Select 'H' when heating only. Select 'H/C' when heating and cooling.

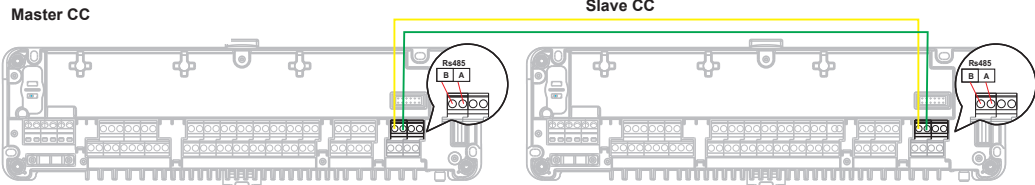
Dip switch settings:		
		= factory setting
Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

Cascade-system (1 master-cc and max. 7 slave-cc's):

When using multiple CCs, they should be interconnected either wired or wirelessly.

Cascade system Wired

Connect several CCs via a cable and configure CC addresses using the dip switch.



Dip switch settings Master-CC

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

Dip switch settings Slave-CC

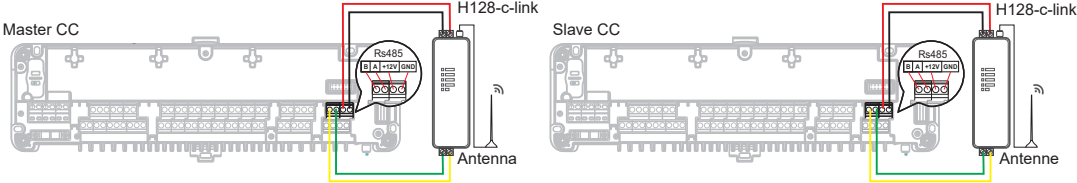
Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

Dip switch settings for Slave-CC:

Address 1: Set the dip switch to position 1.
Address 2: Set the dip switch to position 2
Address 3: Set the dip switch to position 1 and 2
Master is always address 0

Cascade system wireless (option H128-C-Link can be ordered separately):

Connect several CCs via wireless. Connect the wires to the H128-c-link according to the example shown and configure CC addresses using the dip switch.



Dip switch settings Master-CC

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

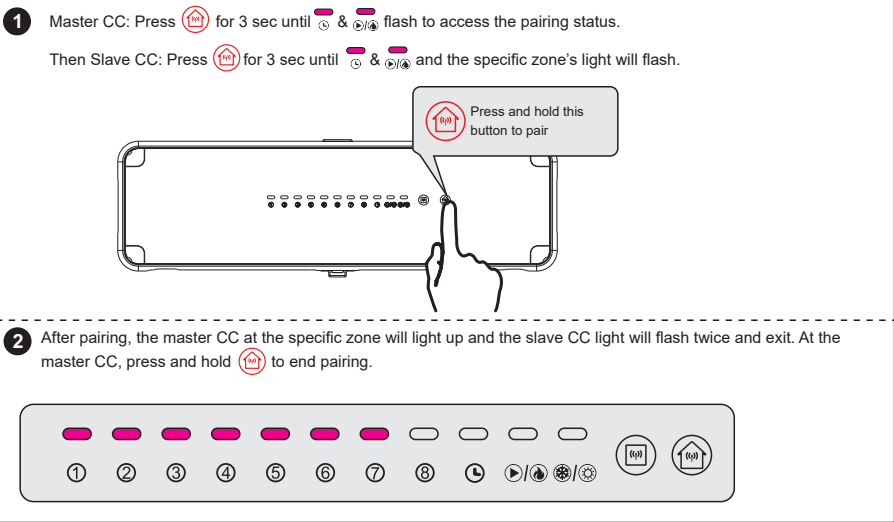
Dip switch settings Slave-CC

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

Dip switch settings for Slave-CC:

Address 1: Set the dip switch to position 1.
Address 2: Set the dip switch to position 2
Address 3: Set the dip switch to position 1 and 2
Master is always address 0

Pairing with H128-C-Link:



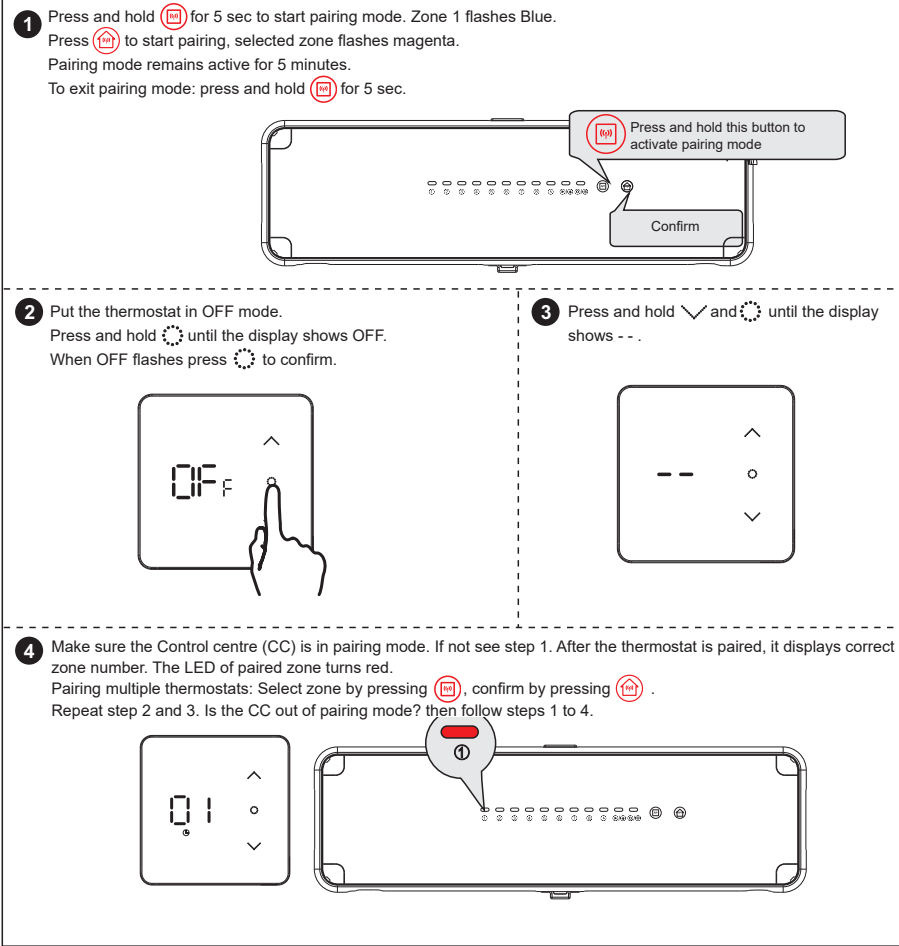
Error messages:

Alarm	Description:	Action:
	This alarm means that the system selection is different. This happens only when using the Cascade link function to link different zone controls.	Dip switches H/C and H should ensure that all wiring is in the same position.
	When you pair with an H128-C-Link, the light keeps flashing, this means the address selection is incorrect.	If this CC is the master, the address must be 0. If this wiring centre is slave, the address cannot be set to 0.
	No connection between Thermostat and CC, the specific zone will light up red.	Check and reconnect the thermostat.

Factory reset: Press [M] 5 times in quick succession until zones 1-8 flash red and blue alternately. After completing the factory reset, the CC returns to standby mode.

Pairing with thermostat:

TIP: Collect all thermostats and keep them close to CC for easy and quick pairing.



H128-CC | Zone control

Installation instructions

MODBUS Universal Interface Protocols

Operation:

UFH Pump

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

UFH Pump

Zone 1	OFF	ON
Zone 2	OFF	ON
Zone 3	OFF	ON
Zone 4	OFF	ON
Zone 5	OFF	ON
Zone 6	OFF	ON
Zone 7	OFF	ON
Zone 8	OFF	ON
Address	0	1
Address	0	2
Address	0	4
Pump control	S	M
Boiler&pump delay	3	0
Cascade link	M	S
Thermostat control	ON	OFF
System	H/C	H

1

All wiring center should be dial to “S” in Cascade link option.

2

Wiring center’s address is based on setting:

• If your controller is address 1 then dip switch to 1 position.

• If the controller is address 5 that switch to 1 and 4 position.

• If the controller is address 7 that switch to 1 ,2 and 4 position.

Basic description

Number	Parameter	Protocol provision
1	Operating mode	RS-485, master-slave, wiring center is the slave
2	Physical interface	A(+), B(-) two-wire system
3	Baud rate	9600
4	Byte format	10 format (1 start bit+8 data bits +1 stop bit)
5	Transmission mode	RTU format (consult MODBUS standard)
6	Wiring center address	1-7
7	Command code	3, 6,16 (3—read data, 6—set data,16-set multiple data)
8	CRC check code	CRC-16 (consult MODBUS standard)
9	CRC verification	CRC-16 (consult MODBUS standard)
10	Data frame interval	2 seconds

Thermostat 1

Number	Parameter	Read/Write	Instruction
0000	Thermostat and wiring center communication states	R	0: Non-paired 1:Paired
0001	RF communication states	R	0: Loss communication 1: communication
0002	Thermostat control	R	0: Wiring center control 1: External devices
0003	System selection	R	0: Heating only 1: Heating/Cooling
0004	ON/OFF	R/W	0: OFF 1: ON
0005	Mode	R/W	0 : Heat 1 : Cool
0006	Set temperature	R/W	5~35℃
0007	Room temperature	R	
0008	Output	R	0: Stop 1: cooling output 2: heating output
0009	Sensor alarm	R	0: Non 1: Internal sensor alarm 2: external sensor alarm
0010	Low battery alarm	R	0: Non 1: Low battery alarm

Thermostat 2

Number	Parameter	Read/Write	Instruction
0016	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0017	RF communication states	R	0: Loss communication 1: communication
0018	Thermostat control	R	0 : Wiring center control 1 : External devices
0019	System selection	R	0 : Heating only 1 : Heating/Cooling
0020	ON/OFF	R/W	0 : OFF 1 : ON
0021	Mode	R/W	0 : Heat 1 : Cool
0022	Set temperature	R/W	5~35℃
0023	Room temperature	R	0: Loss communication 1: communication
0024	Output	R	0 : Stop 1 : cooling output 2 : heating output
0025	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm
0026	Low battery alarm	R	0 : Non 1 : Low battery alarm

Thermostat 3

Number	Parameter	Read/Write	Instruction
0032	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0033	RF communication states	R	0: Loss communication 1: communication
0034	Thermostat control	R	0 : Wiring center control 1 : External devices
0035	System selection	R	0 : Heating only 1 : Heating/Cooling
0036	ON/OFF	R/W	0 : OFF 1 : ON
0037	Mode	R/W	0 : Heat 1 : Cool
0038	Set temperature	R/W	5~35℃
0039	Room temperature	R	
0040	Output	R	0 : Stop 1 : cooling output 2 : heating output
0041	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm
0042	Low battery alarm	R	0 : Non 1 : Low battery alarm

Thermostat 4

Number	Parameter	Read/Write	Instruction
0048	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0049	RF communication states	R	0: Loss communication 1: communication
0050	Thermostat control	R	0 : Wiring center control 1 : External devices
0051	System selection	R	0 : Heating only 1 : Heating/Cooling
0052	ON/OFF	R/W	0 : OFF 1 : ON
0053	Mode	R/W	0 : Heat 1 : Cool
0054	Set temperature	R/W	5~35℃
0055	Room temperature	R	
0056	Output	R	0 : Stop 1 : cooling output 2 : heating output
0057	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm
0058	Low battery alarm	R	0 : Non 1 : Low battery alarm

Thermostat 5

Number	Parameter	Read/Write	Instruction
0064	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0065	RF communication states	R	0: Loss communication 1: communication
0066	Thermostat control	R	0 : Wiring center control 1 : External devices
0067	System selection	R	0 : Heating only 1 : Heating/Cooling
0068	ON/OFF	R/W	0 : OFF 1 : ON
0069	Mode	R/W	0 : Heat 1 : Cool
0070	Set temperature	R/W	5~35℃
0071	Room temperature	R	
0072	Output	R	0 : Stop 1 : cooling output 2 : heating output
0073	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm
0074	Low battery alarm	R	0 : Non 1 : Low battery alarm

Thermostat 6

Number	Parameter	Read/Write	Instruction
0080	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0081	RF communication states	R	0: Loss communication 1: communication
0082	Thermostat control	R	0 : Wiring center control 1 : External devices
0083	System selection	R	0 : Heating only 1 : Heating/Cooling
0084	ON/OFF	R/W	0 : OFF 1 : ON
0085	Mode	R/W	0 : Heat 1 : Cool
0086	Set temperature	R/W	5~35℃
0087	Room temperature	R	
0088	Output	R	0 : Stop 1 : cooling output 2 : heating output
0089	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm
0090	Low battery alarm	R	0 : Non 1 : Low battery alarm

Thermostat 7

Number	Parameter	Read/Write	Instruction
0096	Thermostat and wiring center communication states	R	0: Non-paired 1: Paired
0097	RF communication states	R	0: Loss communication 1: communication
0098	Thermostat control	R	0 : Wiring center control 1 : External devices
0099	System selection	R	0 : Heating only 1 : Heating/Cooling
0100	ON/OFF	R/W	0 : OFF 1 : ON
0101	Mode	R/W	0 : Heat 1 : Cool
0102	Set temperature	R/W	5~35℃
0103	Room temperature	R	
0104	Output	R	0 : Stop 1 : cooling output 2 : heating output
0105	Sensor alarm	R	0 : Non 1 : Internal sensor alarm 2 : external sensor alarm

*There is 5 minutes communication delay between controller and Modbus

*The Max. Wiring center when connected Modbus would be 7 pcs

*Mode (cool/heat) set by Modbus only

*Cascade link and Modbus is optional

*Read/Write data should be one by one.

The diagram illustrates the wiring for a smart heating system, showing the connection between a central control unit, a boiler, a UFH pump, and multiple thermostats.

Central Control Unit Terminals:

- Power Section:** L, N, PE (for 230V TO UFH PUMP); L, N, PE (for UFH Pump).
- UFH Pump (Imax 8(5)A):** PE, N, L.
- Motorized valve (Imax 1A):** BR, N, PE, GR, OR.
- Zone Actuators (Zone 1 to Zone 8):** L, N, Actuator.
- Boiler Control Section:** COM, NC, NO (Boiler); COM, NO (Heat demand); H/C Mode (NO, NC, COM); Cool demand (COM, NO); H/C Input (CO, GND).

Connections:

- 230V TO UFH PUMP:** Connected to the power supply.
- UFH Pump (Imax 8(5)A):** Connected to the power supply.
- Motorized valve (Imax 1A):** Connected to the central unit.
- Zone Actuators (Zone 1 to Zone 8):** Connected to the central unit.
- Boiler Control Section:** Connected to the boiler and heat/cool changeover output (Relay Imax 1A).
- Heat/Cool changeover output (Relay Imax 1A):** Connected to the boiler.
- Cool demand (Relay Imax 1A):** Connected to the boiler.
- Thermostats (01 to 08):** Each thermostat is connected to the central unit via a wireless signal.