

MC6

Heat/Cool



Main Feature

- 3.5" tft color touch screen
- Humidity sensor, Ambient light sensor
- Wi-Fi connective(**Option**)
- Tuya App (**Option**)
- Tuya Zigbee (**Option**)
- LoRaWAN 868mhz/915mhz(**Option**)
- BACnet MSTP/IP (**Option**)
- Modbus485 RTU, TCP(**Option**)
- Customized MQTT(**Option**)
- 7 day, weekday/weekend, 24hours schedule
- History data tracking diagram(Up to 4 weeks)
- Energy consumption statics
- Defrost protection
- Multi language(9 languages)
- C/F temperature display
- 12/24 hours
- Touch screen lockout

Technical Data

Supply Voltage	230 VAC 50/60 HZ
Relay Rating	230VAC @5 Amp per relay; @16 Amp relay in electric heating model
Output Relay	SPST - NO
Display	320x480 pixels TFT, Capacitive touch screen
Communications	Modbus RTU , modbus TCP
Displayed Temperature Resolution	0.1°C
Smart Schedule Type	7days, weekday/weekend, 24hours
Schedule Per Day	Up to seven different 4- or 6-event program
Standby Consumption	≤0.5 W
Wifi(Option)	IEEE 802.11 b/g/n - 2.4ghz
Security	WPA/WPA2
Dimensions (W/H/D)	96 * 86 * 13.8 (mm)
Weight	≤200 g
Alexa(Option)	Available
Google Home(Option)	

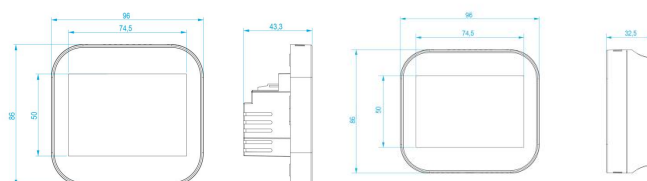
HVAC Product Model

Model	System	Fan	Valve	Input	Modbus
2FA	2 pipes	3 speed	3 ways	Windows/occupy/fire	RTU/TCP
2FC	2 pipes	3 speed	0-10v	Windows/occupy/fire	RTU/TCP
2FGC	2 pipes	0-10v	0-10v	Windows/occupy/fire	RTU/TCP
2FG	2 pipes	0-10v	2 ways	Windows/occupy/fire	RTU/TCP
2FB1	2 pipes	220v fan (0-100%)	2 ways	Windows/occupy/fire	RTU/TCP
4FDE	2 pipes	3 speed	2 ways cool/electric heat	Windows/occupy/fire	RTU/TCP
4FD	4 pipes	3 speed	2 ways	Windows/occupy/fire	RTU/TCP
4FF	4 pipes	3 speed	0-10v	Windows/occupy/fire	RTU/TCP
4FI	4 pipes	0-10v	2 ways	Windows/occupy/fire	RTU/TCP
4FE	4 pipes	220v fan (0-100%)	2 ways	Windows/occupy/fire	RTU/TCP
DX	Direct expansion (dx)	3 speed	2 stage compressor 1 stage Heating	External sensor/ windows/occupy/fire	RTU/TCP

Heating Product Model

Model	System	Power supply	Heating Relay	Hot Water	External sensor
HA	Boiler/Valve/Underfloor Water	230VAC	3 Amp	No	No
HE	Electric heating	230VAC	16 Amp	No	NCT10K/3950
HD (Wireless)	Boiler/Valve/Underfloor Water	5VDC (USB Power)	No	No	No
HW	Boiler/Valve/Underfloor Water	230VAC	3 Amp	Yes	No

Outline Dimension



Falcon

Heat/Cool



Main Feature

- 4.0" tft color touch screen
- Humidity sensor, Ambient light sensor
- Wi-Fi connective(**Option**)
- Tuya App (**Option**)
- Tuya App (**Option**)
- LoRaWAN 868mhz/915mhz(**Option**)
- BACnet MSTP/IP (**Option**)
- Modbus485 RTU, TCP(**Option**)
- Customized MQTT(**Option**)
- 7 day, weekday/weekend, 24hours schedule
- Four or six events per day
- History data tracking diagram(Up to 4 weeks)
- Energy consumption statics
- Defrost protection
- Multi language(9 languages)
- C/F temperature display
- Touch screen lockout

Technical Data

Supply Voltage	230 VAC 50/60 HZ
Relay Rating	230VAC @5 Amp per relay; @16 Amp relay in electric heating model
Output Relay	SPST - NO
Display	320x480 pixels TFT, Capacitive touch screen
Communications	Modbus RTU , modbus TCP
Displayed Temperature Resolution	0.1°C
Smart Schedule Type	7days, weekday/weekend, 24hours
Schedule Per Day	Up to seven different 4- or 6-event program
Standby Consumption	≤0.5 W
Wifi(Option)	IEEE 802.11 b/g/n - 2.4ghz
Security	WPA/WPA2
Dimensions (W/H/D)	106 * 86 * 29.50 (mm)
Weight	≤200 g
Alexa(Option)	Available
Google Home(Option)	

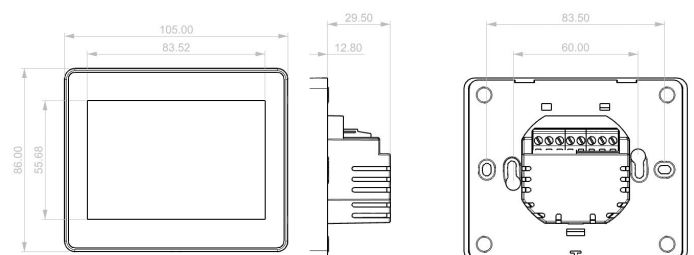
HVAC Product Model

Model	System	Fan	Valve	Input	Modbus
2FA	2 pipes	3 speed	3 ways	Windows/occupy/fire	RTU/TCP
2FC	2 pipes	3 speed	0-10v	Windows/occupy/fire	RTU/TCP
2FGC	2 pipes	0-10v	0-10v	Windows/occupy/fire	RTU/TCP
2FG	2 pipes	0-10v	2 ways	Windows/occupy/fire	RTU/TCP
2FB1	2 pipes	220v fan (0-100%)	2 ways	Windows/occupy/fire	RTU/TCP
4FDE	2 pipes	3 speed	2 ways cool/electric heat	Windows/occupy/fire	RTU/TCP
4FD	4 pipes	3 speed	2 ways	Windows/occupy/fire	RTU/TCP
4FF	4 pipes	3 speed	0-10v	Windows/occupy/fire	RTU/TCP
4FI	4 pipes	0-10v	2 ways	Windows/occupy/fire	RTU/TCP
4FE	4 pipes	220v fan (0-100%)	2 ways	Windows/occupy/fire	RTU/TCP
DX	Direct expansion (dx)	3 speed	2 stage compressor 1 stage Heating	External sensor/ windows/occupy/fire	RTU/TCP

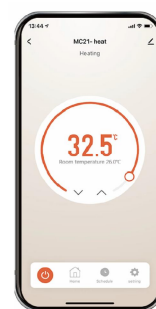
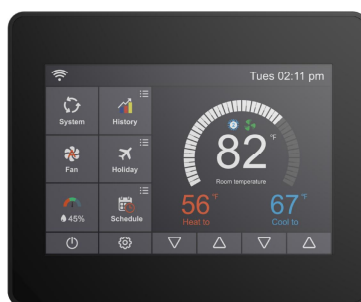
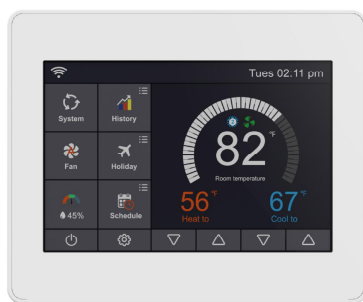
Heating Product Model

Model	System	Power supply	Heating Relay	Hot Water	External sensor
HA	Boiler/Valve/Underfloor Water	230VAC	3 Amp	No	No
HE	Electric heating	230VAC	16 Amp	No	NCT10K/3950
HD (Wireless)	Boiler/Valve/Underfloor Water	5VDC (USB Power)	No	No	No
HW	Boiler/Valve/Underfloor Water	230VAC	3 Amp	Yes	No

Outline Dimension



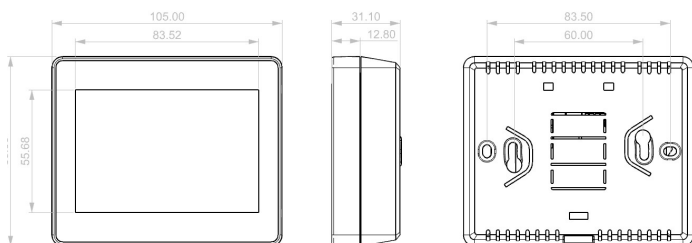
Falcon -HP



Main Feature

- Hardwired , 24VAC or 110vac power supply
- Up to 3H/2C, Gas / Electric / Heat Pump / Fossil Fuel /Conventional system
- 4.0" TFT color display, 480*320 resolution
- Dual transformer system
- Wi-Fi embedded , 2.4G , 802.11bgn(**Option**)
- Tuya App(**Option**)
- LoRaWAN(**Option**)
- BACnet MSTP/IP (**Option**)
- Modbus RS485, Modbus TCP (**Option**)
- Customizd **MQTT** (**Option**)
- Capacitive touch
- With humidity sensor (+/- 3%)
- With ambient light sensor
- Programmable mode, 5/2 , 7days , 24hours
- Four or six events per day
- Open window feature
- Filter reminder
- Manual or auto changeover
- Adjustable heating and cooling set point limits
- Automatically adjusts to daylight saving time
- C/F temperature display
- External sensor(10k 25°C @3950)
- Multi Language(9 languages)
- Touch screen lockout
- Night light option
- Auto time sync to internet

Outline Dimension& Installation



Home Screen Display



1 Wi-Fi indicator	9 Holiday
2 History data diagram	10 Schedule
3 Adjusting the optional settings.	11 Configuration settings
4 Day indicator & clock	12,13, Adjusting the setting temperature
5 System mode: heat, cool ,auto, off	14 Setting temperature display
6 Fan :auto, high, med, low	15 Room temperature display
7 Humidity	16 °C or °F display
8 Power on/off	17 "heating/cooling/vent" symbol

Technical Data

Purpose of control	Up to 3H/2C, Gas / Electric / Heat Pump / Fossil Fuel /Conventional system
Supply voltage	24VAC, 110VAC 50/60 hz
Relay rating	110VAC @5 Amp 24VAC @1 Amp
Output relay	SPST - NO
Display	4.0 inch, 320x480 pixels color TFT - capacitive touch
WiFi	IEEE 802.11 b/g/n - 2.4GHZ
Communications	Modbus RTU, Modbus TCP, BACnet MS/TP, LoRaWAN
Standby consumption	≤0.5 W
Security	WPA/WPA2
Dimensions (w/h/d)	105 * 86 * 31.1 (mm)
Weight	≤200 g
Enclosure rating	IP 20
Product material	PC + ABS plastic
Approval	CE, FCC, RoHS,CA65

HVAC System Compatibility

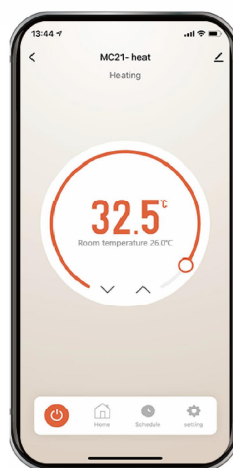
Equipment	Supported?
Gas/Oil/Electric heating (Up to two stages)	YES
Standard electric cooling (Up to two stages)	YES
Traditional AC (up to two stages)	YES
Heat pump with auxiliary heat (Up to three stages)	YES
Dual fuel systems	YES
Boilers	YES
1 remote sensor(10K resistive temperature)	YES
1 dry contact for Occupancy input	YES

Model Part Number

Model	Explanation	Model	Explanation
-M	With Modbus 485(BACnet MS/TP), (default none)	-L	With LoRaWAN (default none)
-W	With WiFi (MQTT, Modbus TCP, BACnet IP),(default none)	-P	With mounting plate (default none)
-T	With Tuya App (default none)	-S	With a 3m NTC 10 K3950 external sensor(default none)
-B	Black colour (default white colour)		

MC6-HD

RF Wireless



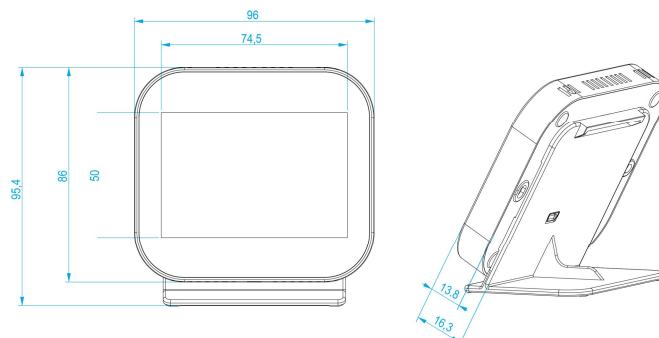
MAIN FEATURE

- USB power supply
- RF Wireless: 433, 868, 915mHZ
- 3.5" tft color touch screen
- Humidity sensor, Ambient light sensor
- Geo-fence
- 7 day, weekday/weekend, 24hours schedule
- Four or six events per day
- Auto sync time and date
- Automatically adjusts to daylight saving time
- Temperature control range 5°C - 45°C
- History data tracking diagram(Up to 4 weeks)
- Energy consumption statics
- Defrost protection
- Modbus TCP(option)
- Work mode: Holiday, Home/Away, Boost(Hold)
- Multi language(9 languages)
- C/F temperature display
- 12/24 hours
- Touch screen lockout
- Works with WB9-RF, RC01,RC02

TECHNICAL DATA

Purpose Of Control	Hvac system
Supply Voltage	DC5V, 50/60 HZ
Display	320x480 pixels TFT, Capacitive touch screen
Communications	Modbus TCP, Tuya App
Displayed Temperature Resolution	0.1°C
Control Temperature Step	0.2°C(default = 0.5°C)
Smart Schedule Type	7days, weekday/weekend, 24hours
Schedule Per Day	Up to seven different 4- or 6-event program
Standby Consumption	≤0.5 W
Wifi(option)	IEEE 802.11 b/g/n - 2.4ghz
Security	WPA/WPA2
Operating Temperature	1°C - 85°C
Dimensions (W/H/D)	96 * 86 * 16.3 (mm)
Build-In Depth	24.5mm
Weight	≤200 g
Enclosure Rating	Ip 21
Enclosure Material	PC + ABS plastic
Alexa(option)	Available
Google Home(option)	

Outline Dimension



MC35

Heating
HVAC
Tuya App



Main Feature

- 3.2 " tft color touch screen
- Wi-Fi connective
- 7 day, weekday/weekend, 24hours schedule
- Four or six events per day
- History data tracking diagram(Up to 4 weeks)
- Energy consumption statics
- Defrost protection
- Modbus RS485 ,modbus TCP
- Multi language(9 languages)
- C/F temperature display
- 12/24 hours
- Touch screen lockout

Technical Data

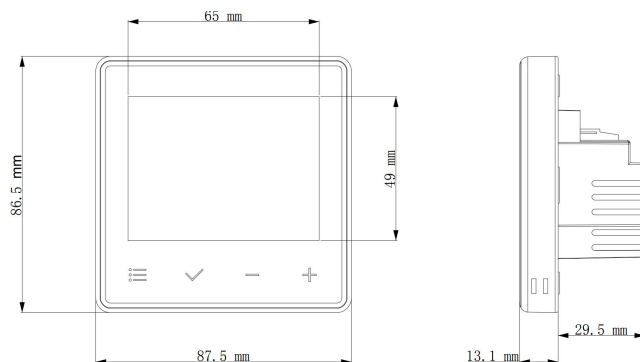
Supply Voltage	230 VAC 50/60 HZ
Relay Rating	230VAC @5 Amp per relay; @16 Amp relay in electric heating model
Output Relay	SPST - NO
Display	320x480 pixels TFT, Capacitive touch screen
Communications	Modbus RTU , modbus TCP
Displayed Temperature Resolution	0.1°C
Smart Schedule Type	7days, weekday/weekend, 24hours
Schedule Per Day	Up to seven different 4- or 6-event program
Standby Consumption	≤0.5 W
Wifi(Optional)	IEEE 802.11 b/g/n - 2.4ghz
Security	WPA/WPA2
Dimensions (W/H/D)	96 * 86 * 13.8 (mm)
Weight	≤200 g
Alexa(Optional)	Available
Google Home(Optional)	

Model	System	Fan	Valve	Input	Modbus
2FA	2 pipes	3 speed	3 ways	Windows/occupy/fire	RTU/TCP
2FC	2 pipes	3 speed	0-10v	Windows/occupy/fire	RTU/TCP
2FGC	2 pipes	0-10v	0-10v	Windows/occupy/fire	RTU/TCP
2FG	2 pipes	0-10v	2 ways	Windows/occupy/fire	RTU/TCP
2FBI	2 pipes	220v fan (0-100%)	2 ways	Windows/occupy/fire	RTU/TCP
4FDE	2 pipes	3 speed	2 ways cool /electric heat	Windows/occupy/fire	RTU/TCP
4FD	4 pipes	3 speed	2 ways	Windows/occupy/fire	RTU/TCP
4FF	4 pipes	3 speed	0-10v	Windows/occupy/fire	RTU/TCP
4FI	4 pipes	0-10v	2 ways	Windows/occupy/fire	RTU/TCP
4FE	4 pipes	220v fan (0-100%)	2 ways	Windows/occupy/fire	RTU/TCP
DX	Direct expansion (dx)	3 speed	2 stage compressor 1 stage Heating	External sensor/ windows/occupy/fire	RTU/TCP

Heating Product Model

Model	System	Power supply	Heating Relay	Hot Water	External sensor
HA	Boiler/Valve/Underfloor Water	230VAC	3 Amp	No	No
HE	Electric heating	230VAC	16 Amp	No	NCT10K/3950
HD (Wireless)	Boiler/Valve/Underfloor Water	5VDC (USB Power)	No	No	No
HW	Boiler/Valve/Underfloor Water	230VAC	3 Amp	Yes	No

Outline Dimension



MC35-HD

RF Wireless

Tuya App



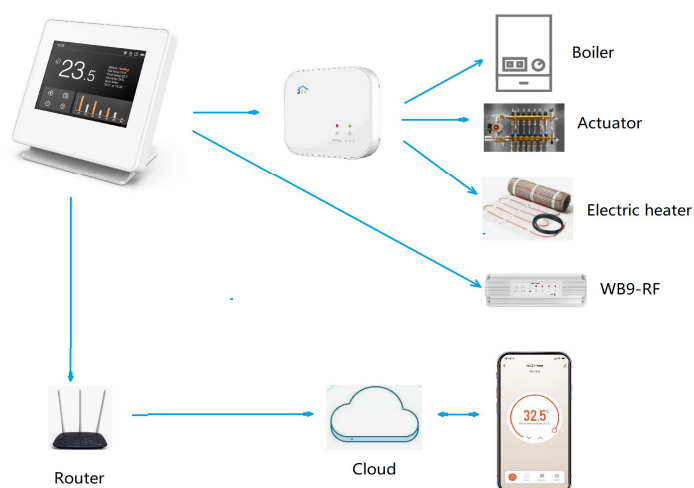
MAIN FEATURE

- USB power supply
- RF Wireless: 433, 868, 915mHZ
- 3.2" tft color touch screen
- Humidity sensor, Ambient light sensor
- Geo-fence
- 7 day, weekday/weekend, 24hours schedule
- Four or six events per day
- Auto sync time and date
- Automatically adjusts to daylight saving time
- Temperature control range 5°C - 45°C
- History data tracking diagram(Up to 4 weeks)
- Energy consumption statics
- Defrost protection
- Modbus TCP(option)
- Work mode: Holiday, Home/Away, Boost(Hold)
- Multi language(9 languages)
- C/F temperature display
- 12/24 hours
- Touch screen lockout
- Works with WB9-RF, RC01,RC02

TECHNICAL DATA

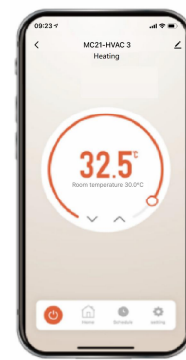
Purpose Of Control	Hvac system
Supply Voltage	DC5V, 50/60 HZ
Display	320x435 pixels TFT, Capacitive touch screen
Communications	Modbus TCP, Tuya App
Displayed Temperature Resolution	0.1°C
Control Temperature Step	0.2°C(default = 0.5°C)
Smart Schedule Type	7days, weekday/weekend, 24hours
Schedule Per Day	Up to seven different 4- or 6-event program
Standby Consumption	≤0.5 W
Wifi(Optional)	IEEE 802.11 b/g/n - 2.4ghz
Security	WPA/WPA2
Operating Temperature	1°C - 85°C
Dimensions (W/H/D)	96 * 86 * 16.3 (mm)
Build-In Depth	24.5mm
Weight	≤200 g
Enclosure Rating	Ip 21
Enclosure Material	PC + ABS plastic
Alexa(Optional)	Available
Google Home(Optional)	

System Diagram



MC21

Heating
HVAC
Tuya App



Product Model

Model	System	Power supply	Heating Relay	Hot Water	External sensor
MC21-HA	Boiler/Valve/Underfloor Water	230VAC	3 Amp	No	NCT10K/3950
MC21-HE	Electric heating	230VAC	16 Amp	No	NCT10K/3950

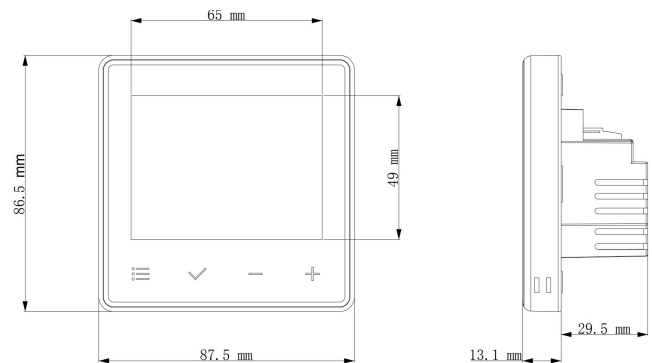
Main Feature

- 3.2" LCD
- 220VAC, 24VAC(Optional) power supply
- WiFi enable+APP (Option)
- Tuya App
- Time and date sync to internet
- White backlight
- Touch keys with backlight
- Smart Touch key
- 7 day, weekday/weekend schedule
- Defrost protection
- Floor temperature limitation
- Home/Away mode
- Holiday function
- Hold temperature function
- Modbus RS485
- C/F temperature display
- Touch key lockout
- DI input(Occupy/Fire/External Sensor)

HVAC Product Model

Model	System	Fan	Valve
2FA	2 pipes	3 speed	3 ways
2FC	2 pipes	3 speed	0-10v
2FGC	2 pipes	0-10v	0-10v
2FG	2 pipes	0-10v	2 ways
4FD	4 pipes	3 speed	2 ways
4FF	4 pipes	3 speed	0-10v
4FI	4 pipes	0-10v	2 ways

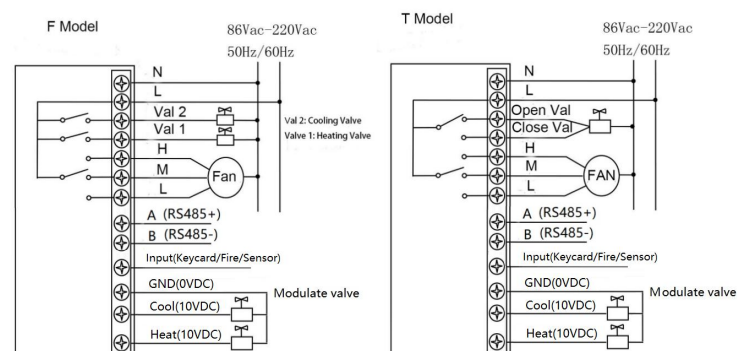
Outline Dimension



Technical Data

Supply Voltage	230 VAC 50/60 HZ
Relay Rating	230VAC @5 Amp per relay; @16 Amp relay in electric heating model
Output Relay	SPST - NO
Display	3.2" LCD , VA . Capacitive touch screen
Communications(Optional)	Modbus RTU , modbus TCP
Displayed Temperature Resolution	0.5°C
Smart Schedule Type	7days, weekday/weekend, 24hours
Schedule Per Day	Up to seven different 4- or 6-event program
Standby Consumption	≤0.5 W
Wifi(Optional)	IEEE 802.11 b/g/n - 2.4ghz
Security	WPA/WPA2
Dimensions (W/H/D)	87 * 87 * 12.6 (mm)
Weight	≤200 g

WIRING DIAGRAM



MC21

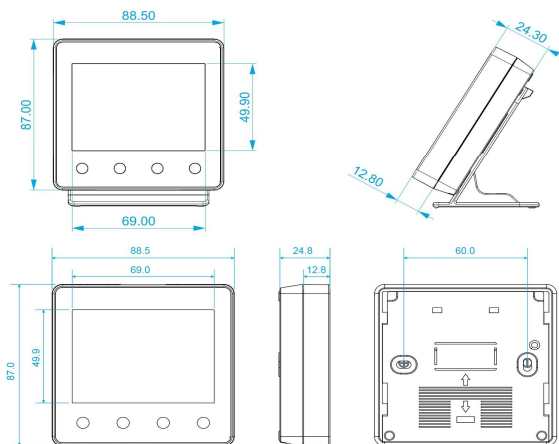
Zigbee-RF



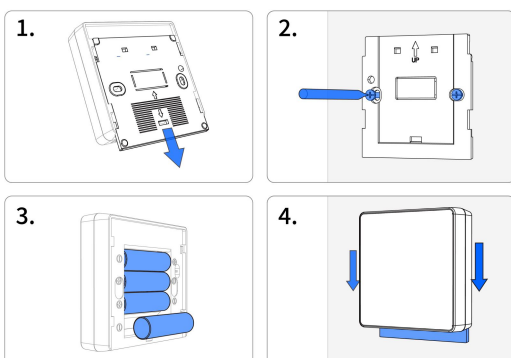
Main Feature

- Boiler/Valve/Underfloor Water/electric heating system
- 2 or 4 * AA battery power supply
- 3.2" LCD display
- **Zigbee(2.4G)(comms to hub)**
- **RF wireless (comms to WB9-RF or RC02)**
- With floor probe and external air sensor(Optional)
- 24 hour programmable or non programmable
- Four events per day
- Time and Week
- Auto time sync to internet
- Lowest and Highest setpoint
- Multi work mode-holiday, home/away,sleeping, hold .
- Open window detection
- Optimum start function
- C/F temperature display
- Touch key lockout

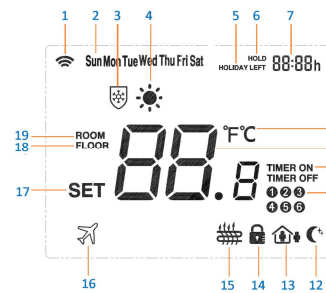
Outline Dimensions



Install Thermostat On The Wall



LCD Display



1. wifi icon	11. Timer number
2. Week	12. Sleep mode
3. Defrost function	13. Away mode
4. Heat on	14. Key lock
5. Holiday	15. Floor temp
6. Hold function	16. holiday function
7. Time	17. Set Temperature
8. F,C indication	18. Floor temp indication
9. Room Temperature	19. Room temp indication
10. Timer on/off	

Technical Data

Purpose of control	Boiler/valve/underfloor water/electric heating system
Supply voltage	2 or 4 * AA battery
Display	3.2" LCD display
Communications	Zigbee(option) , RF
Zigbee frequency	2.4g
RF frequency	868mhz
Displayed temperature resolution	0.1°C
Control temperature step	0.5°C
Smart schedule type	24 hour
Schedule per day	4 event program
Standby consumption	≤0.5 W
Operating temperature	1° c- 85° c
Dimensions (W/H/D)	88 * 87 * 24.5 (mm)
Weight	≤200 g
Enclosure rating	IP 20
Enclosure material	PC + ABS

Model Part Number

Model	Wireless	Model	External Sensor
-Z	Zigbee +RF	-TF	Floor sensor (default none)
-RF	RF only	-TA	Remote air sensor (default none)
-B	Black colour (default white)	-TFA	Floor + Remote air (default none)
-S	With Stand(default none)		

System Diagram



RC01/02

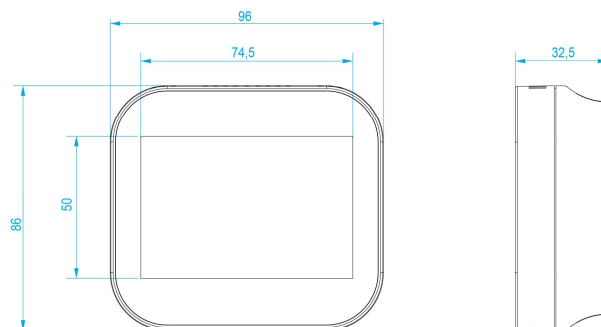
1/2 channels
wireless receiver



MAIN FEATURE

- AC230 power supply
- Works with **MC6-HD**
- RF Wireless: 868,mHz
- 1/2 channels outputs
- Boiler/ valve/electric heating

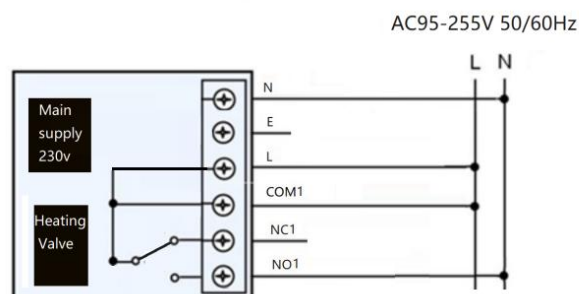
Outline Dimension



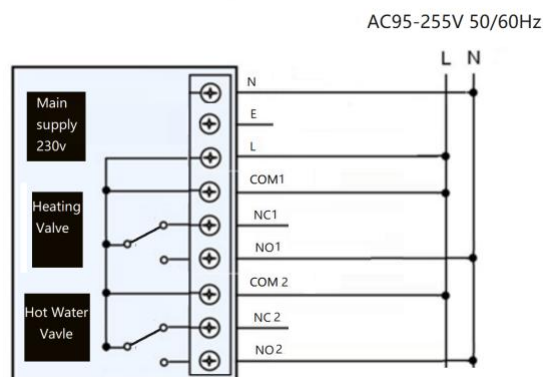
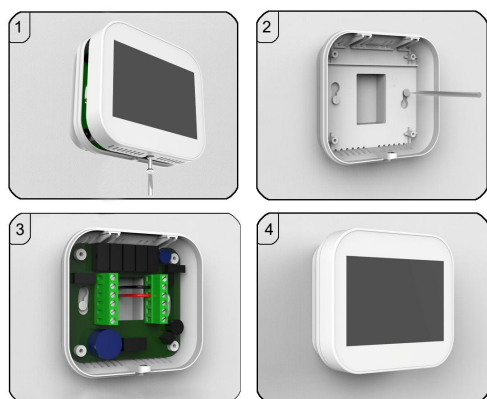
TECHNICAL DATA

Purpose Of Control	Underfloor heating system
Supply Voltage	, 230 VAC 50/60 HZ
Communications	Wireless RF 868mHz
Output relay	5A/16A
Operating Temperature	1° c- 85° C
Dimensions (W/H/D)	96 * 86 * 32.5 (mm)
Weight	≤200 g
Enclosure Rating	Ip 21
Enclosure Material	PC + ABS plastic

Wiring diagram



Installation



WB6/8/10

6/8/10 Ways Wired Wiring centre



Introduction

The WB10 is an 10 Zone wiring centre for use with 230v thermostats .the WB10 can be used to control any actuator or valve which requires a 230v AC signal to open. For mid position valves and those requiring a closing signal, a changeover relay is required. At the same time the WB10 offers the ability to operate a boiler or other heat source through a volt free output. Additional outputs designed for use with under-floor heating systems are also included as standard. These are the pump and valve outputs which would normally operate a manifold pump or a manifold valve.

The pump delay time is 3 mins.

WB10 has a feature of pump delay , user could set it 3mins or 1min by adjusting the switch on the pcb , the pump output delay time is 3 minutes if switch is set to "1" ; the pump output delay time is 3 minutes if switch is set to "ON" ; the pump delay switch is close to the fuse on the pcb board.

Connections

Mains Supply

Power supply into the WB10, which should be fused at 5 amps, these connections are;

L = Live or phase 230v AC 50/60Hz E = Earth N = Neutral

Heat Enable

This is the main call for heat for the system, there are 3 connections;

LS = Live Supply E = Earth LR = Live Return

UFH Valve

Used for an underfloor heating manifold valve.

Zones 1...10 (Inputs)

Zone inputs are clearly marked at the top of the circuit board;

L = Live supply to thermostat.

E = Earth

N = Neutral supply to thermostat.

S/L = 230v switch live from thermostat, this activates the corresponding zone output.

Zones 1...10 (Outputs)

Zones outputs are clearly marked

L = live out to actuator or valve

N = neutral to actuator or valve

There are two connections live (L) and neutral (N), both terminals marked L are the same and both terminals marked N are the same.

Each zone output corresponds to the thermostat wired in at the top of the pcb.

UFH Pump

Used for an underfloor heating manifold pump, connections are;

L = Live E = Earth N = Neutral

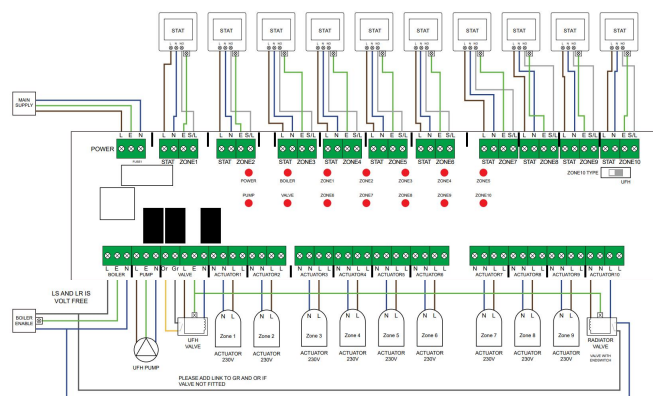
When an under-floor heating zone sends a call for heat to the WB10, the live & neutral output will supply 230v to the manifold pump .

Fuses

15amp, 30mm anti-surge fuse, this fuse supplies power to all 230v outputs from the board it protects the zone, pump/valve outputs.

Outline dimension

32cm x 14cm x 5.5cm



UNDER FLOOR MANIFOLD

LIVE
SWITCH LIVE
NEUTRAL
EARTH
END SWITCH
AND BOILER ENABLE

WB9-RF

9 Ways Wireless Wiring centre



Introduction

The WB9-RF is an 9 Zone **wireless** wiring centre for use with 230v thermostats ,works with **MC6-HD, RF01**,the outline dimension is 32cm x 14cm x 5.5cm .the WB9-RFcan be used to control any actuator or valve which requires a 230v AC signal to open. For mid position valves and those requiring a closing signal, a changeover relay is required. At the same time the WB9-RF offers the ability to operate a boiler or other heat source through a volt free output. Additional outputs designed for use with under-floor heating systems are also included as standard. These are the pump and valve outputs which would normally operate a manifold pump or a manifold valve.

Connections

Mains Supply

Power supply into the WB10, which should be fused at 5 amps, these connections are;

L = Live or phase 230v AC 50/60Hz
E = Earth
N = Neutral

Boiler

This is the main call for heat for the system, there are 3 connections;

C = common
NO = normally open
NC = normally closed

Boiler

This is the main call for heat for the system, there are 3 connections;

C = common
NO = normally open
NC = normally closed

H/W

This output is used to control a hot water cylinder thermostat

C = common
NO = normally open

N = Neutral to actuator or valve

There are two connections live (L) and neutral (N), both terminals marked L are the same and both terminals marked N are the same. Each zone output is numbered, Zone 1 will respond to radio signals from the thermostat paired to zone 1, Zone 2 output will respond to thermostat numbered 2 etc.

Pump

Used for an underfloor heating manifold pump. Connections are clearly marked

L = live or phase 230v ac 50/60Hz

N = Neutral

E = Earth

Fuses

WB9-RF is protected by 2 fuses

Fuse 1. 5amp, 20mm anti-surge fuse, this fuse supplies and protects the internal electronics.

Fuse 2. 5amp, 20mm anti-surge fuse, this fuse supplies power to all 230v outputs from the board it protects the zone, pump and valve outputs.

Outline dimension

32cm x 14cm x 5.5cm

Specification

Power Supply	AC230V,50-60HZ.
Power consumption	7W.
Max load on boiler output	3A, AC230V ,resistive.
Max load on H/W output	3A, AC230V, resistive.
Max load for zone outputs	3A, AC230V, resistive.
Max load	5AMP

CH3

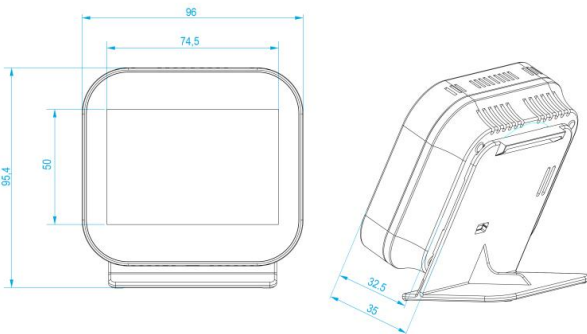
CO2/RH/TEMP Monitor



MAIN FEATURE

- USB power supply, DC5V;
- 3.5" TFT color display, 480*320 resolution
- Capacitive touch
- Dual Channel NDIR CO2 sensor
- NDIR life time 15 years
- 7 days CO2 history data diagram
- 7 days temperature history data diagram
- 7 days humidity history data diagram
- With humidity sensor (+/- 3%)
- With ambient light sensor
- CO2 high, low alert message reminder
- Auto ON/OFF via ambient light
- C/F temperature display
- Children touch-lock
- Auto change daylight savings (DST)
- Multi language
- Night light option(Auto On/Off with ambient sensor)
- Auto backlight dim with ambient light sensor

OUTLINE DIMENSION



TECHNICAL DATA

Power Supply voltage	USB Supply, DC5V;
Display	320x480 pixels color TFT - capacitive touch
Operating temperature	1° C- 85° C
CO2 sensor type	Dual Channel NDIR
CO2 accuracy	@22 °C (72 °F)±40ppm + Display*2%
CO2 detective range	0-9999 ppm
NDIR life time	15 Years
Displayed temperature resolution	0.1°C
CO2 High/Low alert settings interval	50 ppm
CO2 High/Low alert settings range	400 – 5000 ppm
Displayed CO2 resolution	1 ppm
Standby power consumption	≤0.5 W
Display dimensions	76.5 X 52 mm(W/H)
Dimensions (W/H/D)	96 * 86 * 32.5 (mm)
Weight	≤200 g
Enclosure rating	IP 21
Product material	PC + ABS plastic

ITEM PACKAGE



MCH3-Pro

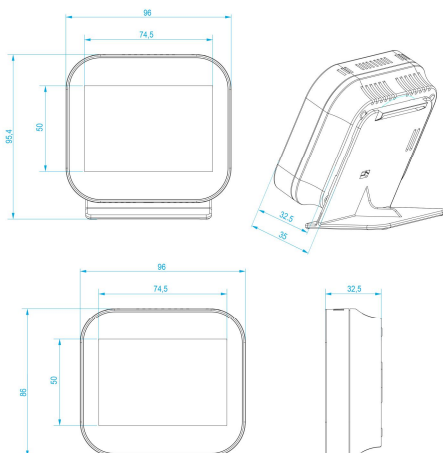


TECHNICAL DATA

MAIN FEATURE

- USB power supply, DC5V;
- Wi-Fi connective (2.4G)
- LoRaWAN (868mHz)
- 3.5" TFT color display, 480*320 resolution
- Capacitive touch
- NDIR CO2 sensor, 15 years life time
- 7 days CO2 history data diagram
- 7 days temperature history data diagram
- 7 days humidity history data diagram
- With humidity sensor (+/- 3%)
- With ambient light sensor
- CO2 high, low alert message reminder
- Auto ON/OFF via ambient light
- C/F temperature display
- Children touch-lock
- Auto change daylight savings (DST)
- Multi language(Optional)
- Night light option(Auto On/Off with ambient sensor)
- Auto backlight dim with ambient light sensor

OUTLINE DIMENSION



Power Supply	USB Supply, DC5V; 110-230VAC(Optional);
Display	320x480 pixels color TFT Capacitive touch
LoRaWAN	868mHz/923mHz/915mHz
WiFi	IEEE 802.11 b/g/n - 2.4ghz
Security	WPA/WPA2
Operating temperature	1° C- 85° C
Sensors	CO2: 0-10000 ppm (±30ppm + 3%MV) Temperature: -10°C – 70°C,±(0.4 C 25 C) Humidity: 0 – 100%, ±3 %
Communication	WiFi LoRaWan
Data protocols	MQTT Device Configuration Using HTTP Download OTA Updates Via HTTP
NDIR life time	15 Years
Standby power consumption	≤0.5 W
Display dimensions	76.5 X 52 mm(W/H)
Dimensions (W/H/D)	96 * 86 * 32.5 (mm)
Weight	≤200 g
Enclosure rating	IP 21
Product material	PC + ABS plastic

LoRaWAN (Customized)



CH60



LoRaWAN

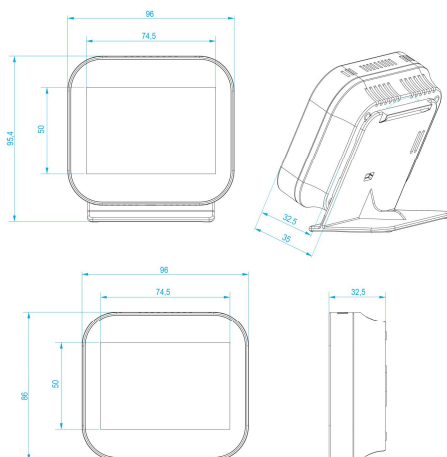
WiFi

MODBUS RTU/TCP

MAIN FEATURE

- USB power supply, DC5V;
- **Wi-Fi connective (2.4G)**
- **LoRaWAN (Option)**
- **Modbus RTU/TCP (Option)**
- **USB data export(.txt)**
- 3.5" TFT color display, 480*320 resolution
- Capacitive touch
- NDIR CO2 sensor, 15 years life time
- External CO/RH/Temp sensor(**Option**)
- With CO2, Temp, Humidity calibration
- Data record interval time- 1,5,15,30,60 mins
- History data qty - 7000 records
- 7 days CO2 history data diagram
- 7 days temperature history data diagram
- 7 days humidity history data diagram
- With humidity sensor (+/- 3%)
- With ambient light sensor
- CO2 high, low alert message reminder and buzzer
- C/F temperature display
- Children touch-lock
- Auto change daylight savings (DST)
- Multi language(**Option**)
- Auto backlight dim with ambient light sensor

OUTLINE DIMENSION



TECHNICAL DATA

Power Supply	USB Supply, DC5V; 110-230VAC, 24VAC(Option);
Display	320x480 pixels color TFT Capacitive touch
LoRaWAN	868mHz/923mHz/915mHz
WiFi	IEEE 802.11 b/g/n - 2.4ghz
http	Customized
MQTT	Customized
Data encryption	AES256
Operating temperature	1° C- 85° C
Sensors	CO2: 0-5000 ppm (±30ppm + 3%MV) Temperature: -10°C – 70°C,±(0.5 C 25 C) Humidity: 0 – 100%, ±3 % VOC: 0-60.000 ppb Particulate Matter (PM1.5, PM2.5, PM4, PM10): 4 KB0-100 µg/m3 (±10 µg/m3), 100 – 1.000 (±10 %) Pressure: 50 to 115 kPa, ±1 kPa accuracy
Communication	WiFi -MQTT,HTTP LoRaWan (Option)
Data protocols	MQTT Device Configuration Using HTTP Download OTA Updates Via HTTP
NDIR life time	15 Years
Standby power consumption	≤0.5 W
Display dimensions	76.5 X 52 mm(W/H)
Dimensions (W/H/D)	96 * 86 * 32.5 (mm)
Weight	≤200 g
Enclosure rating	IP 21
Product material	PC + ABS plastic

TRV

- B :Bluetooth
- W:WiFi
- Z: Zigbee



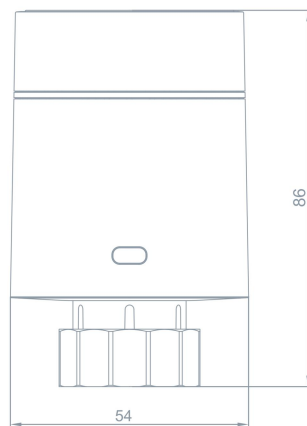
MAIN FEATURE

- LED digital display
- Set temperature and function through mobile APP (Tuya)
- Knob to adjust TRV setting temperature
- Can choose to use Wifi, Zigbee, Bluetooth, RF433, LoraWan and other wireless programs
- Stepper motor, precise temperature control, low noise
- Top mounting battery (2xAA/LR6 1.5V)
- Window detection, anti-freeze protection
- Quick home function, with the gateway, all TRV one-click synchronization away from home
- Provide compatible M30, CRL (Caleffi), GLA (Giacomini) standard transfer

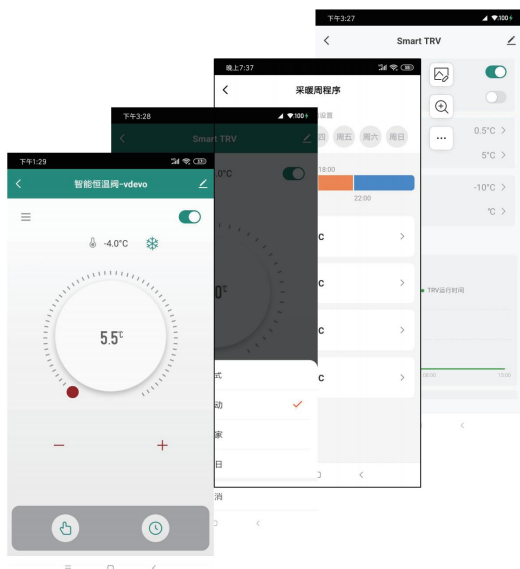
TECHNICAL DATA

Wireless	Zigbee3.0
Input	3V(2x1.5V AA)
Threaded connection	M30x1.5mm
Product dimension	Ø 54x86mm
Net weight	135g
Temp setting range	4°-35
Wireless	Zigbee3.0

OUTLINE DIMENSIONS:



APP(iOS and Android)



OEM/ODM

