



Customisable mobile application

Bluetooth



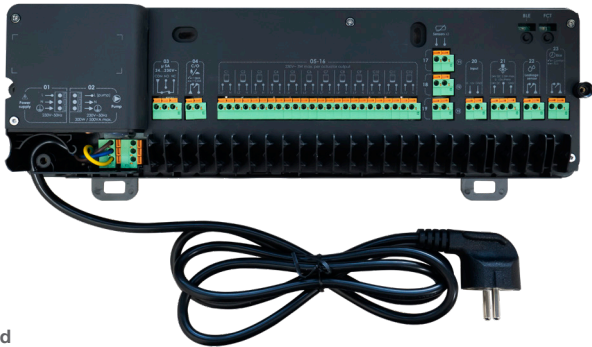
WIRELESS CENTRAL CONTROL UNIT FOR UNDERFLOOR HEATING / COOLING

Local control without internet or remote control (optional) via UFH Ectrl mobile application

Overview



230V version
24V version available



Main features

- Room-by-room or zone temperature control
- Management in heating or cooling mode
- Local (without Internet) or remote (with optional multi-protocol gateway) control via UFH Ectrl mobile application
- Customizable weekly and daily programming (via app)

Application

- Hydraulic underfloor heating/cooling

Benefits

- **Customizable 2-in-1 mobile application** with intuitive interface:
 - **Installer mode:** quick and easy configuration and commissioning
 - **User mode:** system information and management
- **2 LEDs:** display of control unit operating status and pairing with smartphone and diagnostics
- **"Quick connect" terminal blocks without screws**
- **OTA (Over The Air) microprocessor** for remote system updates via the application
- **Compatible with various heat generators:**
 - **Reversible heat pump:** heating/cooling changeover
 - **Boiler:** system management in heating mode only
- **Optional connection of various peripherals:** 3-way valve, up to 3 temperature sensors to optimize your control in heating or cooling mode according to the water ratio
- **Visualization of room information:** evolution of measured temperature over an adjustable period, installation data upload via the app for better management of comfort and savings

Sold separately



Electrothermal actuators Room thermostat Multi-protocol gateway

Ecosystem

The standard installation includes:

- A control unit with 12 thermoelectric actuator outputs:
 - Connection of actuators on manifold to underfloor heating frames
 - 1 to 12 wireless room thermostats (sold separately)
- System management via downloadable mobile application

Optional: remote control via multiprotocol gateway

We offer other products compatible with the standard system. For more information, please contact us.

Functional specifications

Use

Safety	Anti-lock function for thermoelectric actuator and circulation pump
	Anti-pull cable locking system
	Fuse protection in the event of overload or short-circuit
	PIN code lock for installer settings
	Water leak detection sensor can be connected (sold separately)



"Fireplace" room-by-room configuration	In the presence of a fireplace or other external heat source, adapt the control to optimize it
"Bypass" room-by-room configuration	Leaves one channel open to protect the circulation pump if all other channels are closed

Wireless transmission

Frequency	BLE 5.2: 2400-2483 MHz (transmission < 10dbm)	Local configuration and control of the control unit from the mobile application
	LoRa: 869,725-869,975 MHz, bandwidth: 125 kHz (transmission < 14dbm)	Communication: - Between thermostats and control unit - Between control unit and multi-protocol gateway (optional)
Transmission	When change of state, every 5 minutes otherwise	

Installation

2 mounting options: Attachment on a DIN rail or wall mounting
Extended installation: 3 control units can be combined in the same home, i.e. 36 channels that can be controlled by a single application

Settings (via application)

2 setting profiles	Installer and user
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Main settings

Room and/or zone temperature setpoint adjustment, operating mode selection
Weekly and daily programming, energy savings

Advanced and expert settings

Thermoelectric actuator configuration	Selection of NO/NC configuration
Pairing	Pairing room thermostats to the control unit
Temperature sensor configuration	Assign a sensor to one of the dedicated inputs, calibration
Select between heating and cooling mode	
Cooling zone management	Cooling permitted or prohibited to prevent condensation in damp rooms
0-10V or PWM (optional) 3-way valve actuator can be connected and configured	
Return to control unit factory settings	Reset, unpair products
Possibility of setting a minimum or maximum temperature that the floor cannot exceed	

Technical specifications

Dimensional, weight and finish specifications

Height	118 mm
Width	365 mm
Depth	54 mm
Weight	1,0 kg
Color	Black

Control


Control type	Proportional integral derivative (PID)
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Electrical specifications

Operating voltage	230 V AC +/-10% 50Hz
Consumption in standby	0,5W under 230V AC


We offer 2 versions of the control unit depending on the output voltage of the electrothermal actuators, 24V or 230V

UfH Ectrl free application available on stores



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+

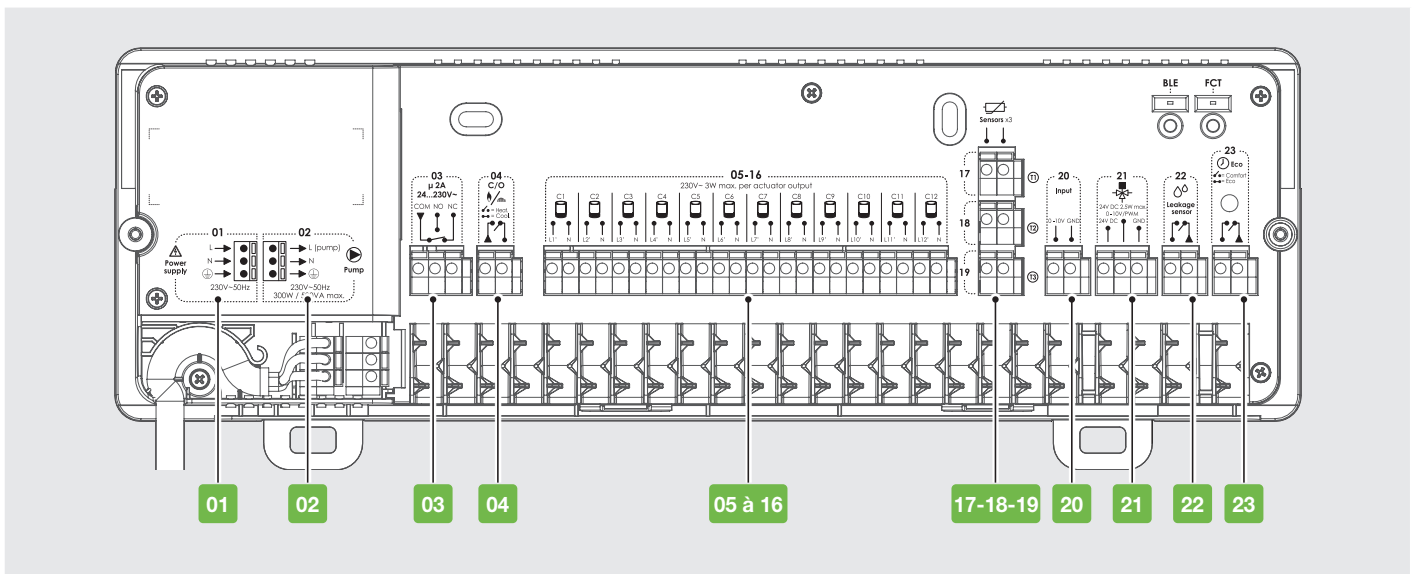
Remote control possible using the multi-protocol gateway

Sold separately

Environment

Protection rating	IP20 construction with functional earth connection
Insulation class	Class II
Operating temperature	0°C to +45°C
Max. humidity level	80% at +25°C (without condensation)
Storage temperature	-20°C to +70°C

Peripherals



Outputs	02	Circulation pump output.	Pump switching phase: 2A / 230VAC max 300W-500VA max
	03	3-terminal changeover contact Heating/Cooling (H/C - C/O) changeover contact	3 terminals: common (COM), 1 contact closed at rest (R), 1 contact open at rest (T) Potential-free contact: 3.3A 230V AC
	05...16	12 control channels	Electrothermal actuators 230V AC, 3W (per channel) or 24V AC/DC, 3W (per channel) depending on version Important : Actuators and cables must be Class II.
	21	Terminals for 0-10V actuator like a 3-way valve (V3V) 0-10V or PWM	Power supply output 24VDC, 2.5W max. Control signal DC 0-10V or 10V PWM, load 500 Ω max.
Inputs	04	Heating / cooling C/O (Change Over) input	External switch input (internal 24VDC, 5 mA)
	17...19	Temperature sensors	For ground, ambient and outdoor temperature measurements NTC 100kΩ at 25°C
	20	Additional universal input 0-10V	Input impedance 0-10V DC > 100 kΩ
	22	Terminals for water leakage sensor	External switch input (internal 24VDC, 5 mA)
	23	ECO input : Lowering the temperature connection terminals for automatic control by an external modular clock	External switch input (internal 24VDC, 5 mA)

Applicable directives

RED	2014/53/EU
RoHS	2011/65/EU

Applicable standards

RED	2014/53/EU
Safety	EN 60730-1; EN 60730-2-9 ; EN 50385
EMC	ETSI EN 301489-1; ETSI EN 301489-3; ETSI EN 301489-17
Radio	ETSI EN 300 328 ; ETSI EN300220-2
RoHS	EN IEC 63000

Product codes

Codes	Descriptions
UFHRF230EIMHBA	Wireless control unit for hydraulic underfloor heating / cooling system, 12 channels, 230V electrothermal actuators
UFHRF24EIMHBA	Wireless control unit for hydraulic underfloor heating / cooling system, 12 channels, 24V electrothermal actuators

Compatible product(s) (sold separately)

Codes	Descriptions
Thermoelectric actuator	
MTC0230IMHA	230V output electrothermal actuator, low power consumption NC voltage-free for central control unit UFHRF230EIMHBA
MTC0024IMHA	24V output electrothermal actuator, low power consumption NC voltage-free for central control unit UFHRF24EIMHBA
Thermostat	
RSLRFIMHA	Wireless room thermostat, white version
RSLRFIMHBA	Wireless room thermostat, black version
Gateway	
BRI4PIMHA	Multi-protocol LoRa/Wifi/Bluetooth/Zigbee gateway, black
Temperature sensor	
ACAEXSEA	NTC 100kΩ temperature sensor, length 5m

Product customization (design features) possible. Please contact us.

