

CONTROL4 NRG



M0CZ00007-03 16/04/2024

Dear Customer,

We congratulate you on choosing an ELFOSystem product, the air conditioning system at annual cycle that offers the possibility in a sole system of meeting all the heating, conditioning and domestic hot water needs.

Clivet is being working for years to offer systems able to assure the maximum comfort for long time with high reliability, efficiency, quality and safety. The target of the company is to offer advanced systems, that assure the best comfort, reduce the energy consumption, the installation and maintenance costs for all the life-cycle of the system.

With this manual, we want to give you information that are useful in all the phases: from the reception, to the installation and use until the disposal so that a system so advanced offers the best procedure of installation and use.

Best regards and have a nice reading !

CLIVET Spa



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MAIN FUNCTIONS

Indications for the use

Keep this manual in an accessible place for the operator. In case of breakdown or malfunction:

- immediately deactivate the system.
- contact an assistance service centre authorized by the manifacturer.

• use original spares parts only

- Ask the installer to be prepared on:
- start-up / shutdown;
- set-point and scheduling personalization;
- maintenance;
- what to do / what not to do in case of breakdown.

Main functions of the System.

Management of all ELFOSystem elements through the "touch screen" panel or remotely with the use of the dedicated App, if there is an internet connection module.

Heat pump for:

- hot and cold water for radiators, radiant panels and fan convectors;
- domestic hot water (DHW).

ELFOFresh for:

- renew air by heating or cooling it;
- manage the ambient humidity by controlling the intake air humidity;
- air-condition in seasons when the heat pump, terminals and radiant panels or radiators are not necessary;
- renew and filter air without heating or cooling it (ventilation only).

Production of domestic hot water, for which it is possible to set:

- the maximum temperature of water inside the storage tank;
- time bands where water is taken to storage maximum temperature or kept at a maintenance temperature;
- production only with solar panels;
- production with boiler integrated.

Area Divisions:

- the house can be divided into homogeneous areas depending on the type of use (day or night area, up to a limit of 12 areas);
- a different hour schedule can be combined with each area, either from other areas or from day to day of the week; programs are common to all areas
- in one area, three operation modes can be set, comfort, economic or off;
 for comfort and eco modes, temperature and humidity set points.
- for comfort and eco modes, temperature and humidity set points can be configured together with the type of ventilation;
- an area can be forced in the required operation mode for a certain period, "stopping" temporarily the ongoing program .

Setpoint:

- each area has a comfort setpoint (optimal comfort, greater consumption) and an economic set (medium comfort, minimum consumption); the economic set is calculated adding (in summer) or subtracting (in winter) a set value to the comfort set point;
- the set point can be modified manually, any time.

Programs:

- a program can be selected among 7 available and modified according to the requirements;
- the time schedule sets the operation mode (comfort, economic or off) for each hour of the day and each day of the week;
- new programs can be added.

Domotic systems connection

Connection with the App

DISPLAY

MAIN PAGE

CONTROL4 NRG comfort and energy assistant. The new main screen is split into 3 separate sections that display all the system information.

The sections are displayed according to the system configuration:

1 ELECTRICAL SYSTEM

This section can be found on the main screen if the SINERGY unit is available in the system configuration.

The following information is displayed:

- Photovoltaic system productiontaico
- Energy consumption
- Entry/withdrawal from the network
- Sinergy battery level

Pressing anywhere in the section opens the "Energy report" page.

2 ENERGY

This section can be found on the main screen if at least one energy measuring device is added to the system configuration.

The following information is displayed:

- Heat pump unit efficiency
- Targeted energy tips
- Energy usage statistics of the Sinergy unit connected

3 SYSTEM

This section can always be found on the main screen.

The following information is displayed:

- Heat pump and area status
- Air renewal status
- DHW production status

Pressing anywhere in the section opens the area page.

Caution: If the Sinergy unit and an energy measuring device are not available in the configuration, the main screen is **SYSTEM**.







3

select

DISPLAY

Information displayed:

- 1 Main control
- 2 System areas
- 3 System status

1 Main control

Switching on and off the system, away from home

Return to the main display

Return to the main display (displayed in the subsequent menus)

New software update availability notification

Date / Hour

Internet/Cloud connection status

Multi-status icon displays CONTROL4 NRG connectivity status

Not connected = There is no Internet, Wireless or wired connection

Connected = CONTROL4 NRG is connected to the Internet via Wi-Fi or wired Ethernet

Not connected to the Cloud = CONTROL4 NRG is connected to the Internet but not connected to the Cloud

Connected to the Cloud = CONTROL4 NRG is connected to the Internet and to the Cloud

Domotic control

Green = connected domotics

Red = disconnected domotics

Connected domotics, but not in communication (disabled)

Alarms

Reports an alarm

USB inserted Signals that a USB device is connected to the panel

Settings

Provides access to the system/user settings panel

Press to access user settings





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DISPLAY



• schedule



3. System status

System settings

Heat pump

- 1 operating status automatic: red = heating, blue = cooling off : gray with x at the top DWH only : drop
- 2 status
- 3 components found in the system: Radiators, Fan coils, Radiant panels,

Production of domestic hot water

1 operating status automatic / Off

ELFOFresh: (max. four units installed)

operating status 1 on / off / automatic / heating / cooling / ventilation off



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Heating

ELFOFresh on

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SYSTEM

START-UP AND SWITCH-OFF

- 1 The system can be:
 - on
 - off
 - away from home

2 - Start up the system

3 - Switch off the system

Switch off the system until day / hour: at the due time, the system returns to the status previously set.

Move cursor "5"

Press edit "6"

Set the SYSTEM START-UP date

Set the SYSTEM START-UP date

4 - Away from home See management away from home







SYSTEM

Select:

4 - Automatic

CHANGE MODE

1 - Operation of the system.



Summer/Winter change Image: Cooling only Image: Cooling only

ADJUSTING DATE AND HOUR

2 - Heating only (red background)

3 - Cooling only (blue background)

switches from heating to

temperature detected

Set date and hour to synchronise the system operation.

cooling automatically, depending on the outdoor and indoor

mode enabled only if ELFOFresh EVO, is present

Settings:

- Set date
- Set hour







SYSTEM

After the date has been changed, press OK "3" to exit

After the time has been changed, press OK "4" to exit

After the time has been changed, press SAVE AND RESTART "5" to save the changes made



select 3



select







SET HEAT PUMP OPERATION

Information displayed:

- supply water temperature
- supply water setpoint
- return water temperature
- operation status (heating/cooling/off)
- compressor (% capacity)
- signal power
- components found in the system (radiators, fan coils and radiant panels) and relative status (enabled / excluded).
- 2 Automatic operation:

The heat pump is used to produce both air-conditioning system water and domestic hot water.

- **3 For domestic hot water only:** The heat pump is used only to produce domestic hot water.
- 4 Deactivate the heat pump: The heat pump is switched off
- 5 Distribution:

Displays the components in the system.

The operation of single components of the system can be enabled or excluded:

select 6, 7 or 8 to Exclude / Enable

Example

- 6 Radiators: Enabled
- 7 Radiant panels: Excluded
- 8 Terminals: Enabled











CHANGE OF SET POINT, FROM FIXED

- 1 Select the single circuit to customise the set point
- 2 Press + o to change the setpoint









MODIFY THE OUTDOOR TEMPERATURE:

5 - select

6 - Set the required values:

Max 30°C Min. 15°C

7 - Modify the correction



The correction can be used to modify the climatic curve rapidly.

Example:

Outdoor air = 30° C supply water set point = 7° C Outdoor air = 15° C supply water set point = 12° C Correction + 1.2° C in Summer

Values after the correction:

Outdoor air = 30° C supply water set point = $7+1.2 = 8.2^{\circ}$ C Outdoor air = 15° C supply water set point = $12+1.2 = 13.2^{\circ}$ C

For the winter correction, follow the same procedure.





select





limatic settings	Not mixed		
- %≅ Not mixed	Setpoint seasonality	Summe	<i>r</i> ~
	Water setpoint in supply	41.0°C External compensation	~
	Supply setpoint limits	Supply set	>
	Outside temperature limits	Outside temp.	>
	Correction	0.0 °C Correction	>
	Maximum correction of ambient ai	r set point - 2.0 °C	+
	Enabling room air set point correct	ion in cooling	~



AIR SET POINT COMPENSATION BASED ON THE OUTSIDE TEMPERATURE

The air temperature set point correction function is enabled in **COOLING ONLY** mode.

The function applies a correction to the zone set point based on the outside temperature value.

The same outside temperature limits set for the climate curve of the PDC are used.

The function is only combined with the not mixed circuit.

- 2 Set on Summer
- 3 Maximum correction of ambient air set point (0°C max 2°C)
- 4 Enabling room air set point correction
- 5 Outside temperature limits setting

3 - Modify the correction example: + 1.0°C

5 - Set the required values: Max 30°C Min. 15°C





Example of zone programming

The air set point is corrected by applying an offset to the slider of the individual thermostats

8 - Press "Comfort" for 2 seconds

Scheduled zone set point = 20°C





Set point corrected by air climate = 20° C



< 18:10-4/8/	4	
Advanced settings		
1.Outside temperature reading	Hei	at pump \vee
2.Interval for sending the heat pump setpoint and air compensatio	- 1	min +
4.Assistance center contacts		
5. Force screen switching on in presence of alarms		\sim
9. Periodic of functional sanitary recirculation activation	— 3	min +
9.Periodic of functional sanitary recirculation deactivation	- 30	min +
22.Resources used in heating		All \sim
(7/1 Other parameters	Save parameters	

The calculation interval of the air set point correction is set in Parameter 2

Default 1 minuto

The parameter is the same one used to calculate the water set point climate.

DOMESTIC HOT WATER

DOMESTIC HOT WATER OPERATION

Information displayed:

• storage temperature

2 - Automatic operation:

domestic hot water is produced automatically, according to the requirement, using all the resources available.

3 - With thermal solar system only:

the storage tank temperature is ensured only using solar collectors, even with a greater set point.

4 - With auxiliary heating only:

the storage tank temperature is maintained only using the auxiliary heater (heater or integrated boiler).

5 - Deactivates the production:

excludes the production of domestic hot water.

In this mode, the temperature of the storage tank is not controlled.

6 - Boost:

Production of domestic hot water in the shortest time, in this way the heat pump (and any electrical resistance) will work simultaneously to reach the temperature set for domestic hot water as quickly as possible.

DOMESTIC HOT WATER SETTINGS

- 8 Water set point with heat pump is indicated as **RELOAD** in the programming
- 9 Water set point with heat pump is indicated as **MAINTENANCE** in the programming
- 10 Maximum temperature allowed with solar collector
- 11 Minimum temperature difference to activate the solar collector: the solar collector activates when the temperature is 5.0°C higher than the storage tank
- 12 Activates the circulation for 3 minutes every 30 minutes

The recirculation function prevents the stratification in the ACS accumulation.

Is active only at the times foreseen by the scheduler (Maintenance + recirculation, Recharge + recirculation).

DOMESTIC HOT WATER PROGRAMMING

Elfocontrol³ EVO is equipped with 3 preset time schedules. Up to 7 programs can be saved in the memory.

All programs can be modified.







× ۱۵	19:06-4/8/24	
Domestic hot water settings		Advanced settings
Water setpoint with heat pump	- 45.	.0°C + Scheduling 12
Maintenance temperature with heat pump	— 38.	.0°C +
Max. admitted temperature with thermal solar	- 80.	.0°C +
Min. temperature difference for the thermal solar activation	- 5.0	0°C +
select 12		



DOMESTIC HOT WATER

Programming example: Day: Thursday Program: Circulation program 1 Operation Profile:

start time	end time	mode	set point (previous page)
1	4	Maintenance	ref. 8
5	8	Recharge and recirculation	ref. 7 + ref. 11
9	19	Maintenance and recirculation	ref. 8 + ref. 11
17	20	Recharge and recirculation	ref. 7 + ref. 11
21	22	Maintenance	ref. 8
23	0	Recharge	ref. 7

A different program can be combined to each day of the week

- select the day of the week to be programmed: the selected day is highlighted in "red".
- select a program among the 7 available; the saved program can be removed; a new program can be created
- modify the program using buttons









ELFOFRESH

FRESH AIR

1- Information displayed:

- Elfofresh on / off •
- operation status:
- heating / cooling / ventilation off

If 4 units are available, data of unit 1,2,3 and 4 are displayed alternatively.

The display shows the unit number to which the data is combined with

- 1 = unit 1 data
- 2 = unit 2 data
- 3 = unit 3 data
- 4 = unit 4 data

2- Select the unit of which the operation must be set

Information displayed:

•

.

- Ventilation .
- Outdoor air temperature
- Unit status .
- Supply air temperature Ambient air temperature •
- Ambient set poin •
- Ambient humidity % (not available with ElfoFresh EVO)
- Compressor status •
- 3 Continuous automatic operation: the fresh air unit operates without interruptions
- 4 Ventilation only: forces the "ventilation only" mode
- 5 Scheduled automatic operation: operation according to the programming
- 6 Exclude: ELFOFresh off

CONFIGURE THE SET POINTS:

- 8 Ambient air setpoint in the summer
- 9 Ambient air setpoint in the winter
- 10 Ambient humidity set point in the summer (not available with ElfoFresh EVO)
- 11 Ambient humidity set point in the winter (not available with ElfoFresh EVO)
- 12 Ambient air setpoint increasing in summer with zones in economic mode
- 13 Ambient air setpoint decreasing in winter with zones in economic mode

If four units are installed inside the system, settings must be performed on all units.

14 - select unit and repeat the procedure



11:30 AM-2/26/24

±

Settings Unit 2			
Ambient air setpoint in cooling	-	26.0°C	8
Ambient air setpoint in heating	-	22.0°C	9
Ambient humidity setpoint in cooling	-	55%	- 10
Ambient humidity setpoint in heating	-	45%	-11
Ambient air setpoint increasing in cooling with zones in economic	-	2.0°C	12
Ambient air setpoint reduction in heating with zones in economic	-	2.0°C	13
Ventilation type in reduced mode		Siler	nt 🗸





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ELFOFRESH

PROGRAMMING

Provide fresh air depending on a daily time schedule.			
5 preset daily p	rograms are available (max 14 programs).		
All programs ca	an be modified.		
A different prog	ram can be combined to each unit.		
Operation mod	e:		
Normal:	optimal fresh air.		
	To be used in case rooms are occupied.		
Reduced:	reduced ventilation flow rate. The volume of fresh air is reduced for greater saving and silence. To be used in case it is not necessary to provide fresh air continuously.		
Switched Off:	the unit is switched off.		
Select 1			
Select $2 \rightarrow$	3 appears		

Programming example:

Day: Wednesday

Program: Fresh air program 1

Operation Profile:

exsample Cooling

start time	end time	end time mode set point (previous page)		
0	8	Normal	ref. 8 + ref. 10	
9	12	Reduced	ref. 8 + ref. 10 + ref. 12	
13	16	Switched Off	-	
17	23	Normal	ref. 8 + ref. 10	

A different program can be combined to each day of the week

- select the day of the week to be programmed: the selected day is highlighted in "red".
- select a program among the 14 available; the saved program can be removed; a new program can be created
- modify the program using buttons











"AWAY FROM HOME" CONTROL

The "away from home" control mode can be activated when the room is not occupied.

The "Away fom home" control allows setting the operation of:

- climatic zones
- fresh air unit
- domestic hot water

"AWAY FROM HOME" SETTINGS

It is possible

3 - Climatic Zones

All zones can be set in the following modes:

- Normal: follows the scheduled programming
- Economic: follows the scheduled programming, but it is forced in Eco
- Off

4 - Fresh air unit

Fresh air units can be set in the following modes:

- Normal: automatic ventilation
- Reduced: reduced ventilation
- Off: ventilation off

5 - Domestic hot water

DHW can be set in the following modes:

- Normal: follows the scheduled programming
- Reduced: is maintained at a lower temperature for an higher energy savings
- Off

7 - If "AWAY FROM HOME" function is enabled :

• the word "AWAY FROM HOME" is displayed













REPORT ENERGETICO

The electric energy is displayed on the CONTROL4 NRG panel and provides a weekly profile of the energy used by the air conditioning system and by the photovoltaic system (when present).

To access the energy report, press anywhere in the ELECTRICAL SYSTEM section on the main page.

Note:

The function is active if the following is configured in the system:

at least one single-phase or three-phase electric energy measuring _ device

(see system component configuration)

Clivet Sinergy unit

Consultation of weekly electric energy consumption.

Depending on the composition of the system, the following information is available:

Air conditioning system consumption	Electrical measuring device 1
Consumption of all electric utilities	Electrical measuring device 2
Photovoltaic production	Clivet Sinergy

Clivet Sinergy

· Electrical measuring device 3 (for third party PV systems)

A. Energy consumption

B. Energy production

Select a line to access the daily details.

The Consumption tab shows the electric energy consumption curves on an hourly basis, broken down into:

- Domestic water
- Cooling

Select 3 - Production

The Production tab shows the electric energy consumption curves on an hourly basis, broken down into

CAUTION

The electric energy measuring device can be connected ONLY to a single-phase unit.









3 Select





Scheduled zone in temperature (gray)

Scheduled zone in call (red = heat; blue = cool)

The operation of every zone can be SCHEDULED or MANUAL.

Zone off

Manual zone in temperature (gray)

Manual zone in call (red = heat; blue = cool)

In the time scheduling of the zones, for the slave terminals it is not possible to do an off-set using the cursor

2 - Scheduled zone :

uses one of the 7 preset programs.

3 - Zone managed in manual mode:

The programming can be ignored and the zone forced for a determined period of time in comfort, normal or off mode.

4 - Modification of a single component temperature

PROGRAMMED MODE

Comfort:

Ideal temperature, to use when we are at home.

Economic:

Holding temperature, to use when the zone is not used.

PROGRAM ZONE

A different program can be combined to each day of the week

5 - Select:

- cooling or heating
- select the day of the week to be programmed: the selected day is highlighted in red.
- summer or winter program among those available; the saved program can be removed; a new program can be created
- modify the program using buttons



6 - SETTING ZONE TEMPERATURES

Set the zone temperature, selecting one of the preset time schedules:

- 7 COOLING programs
- 7 HEATING programs.



EXCELLENT

select

2

7 - Select:

- cooling or heating
- the day of the week to be programmed: the selected day is highlighted in red.
- cooling or heating program among those available



The temperature of the "**Comfort**" profile is preset for all the house zone:

- 24°C for cooling
- 21°C for heating

A different temperature can be set for each zone.

To modify the temperature:

- 8 Press "Comfort" for 2 seconds
- 9 Set
 - zone temperature
 - humidity %
 - automatic / manual / silenced / off ventilation (fancoil = off)







The temperature of the **"Economic"** profile depends on the temperature of the **"Comfort"** profile:

- it is higher in cooling
- lower in heating.

To modify the temperature difference:

• press "Economic" for 2 sec

Set:

- temperature difference compared to the "Comfort" mode
- humidity %
- automatic / manual / silenced / off ventilation

Example

Cooling	Comfort	difference	Economical
Temperature	24°C	+2 °C	26°C
Heating	Comfort	difference	Economical
Temperature	21 °C	-2 °C	19°C

Temperature must be selected for both Cooling and Heating (section 7)

ZONE IN MANUAL MODE

The zone can be forced for a certain period of time in the desired mode, ignoring the time schedule.

At the due time, the program previously stopped is restarted.

Set the Zone manually in one of the following operation modes: **3 - Comfort:**

- for ever (it does not return to the programming)
- for 1,2....3 hours...
- 4 Economic:
 - for ever (it does not return to the programming)
- for 1,2....3 hours...

5 - Off:

- for ever (it does not return to the programming)
- for 1,2....3 hours....

The minimum setting interval to force the preset time schedule is 1 hour.

The zone in "**for ever**" mode, enter into the programming to return to the normal programming.







select

2

Modification of a single component temperature



2 -correction setting cursors

Example

sub-zone	Final temperature
Living room 1	20.0°C
Living room 2	19.0°C
Main entrance	21.5°C



ALARMS

Attention:

Before resetting an alarm, identify and remove the cause generating that.

Repeated resets can cause system malfunctions or irreversible damage.

In case of doubt, contact the After Sales Centre.

Alarms are indicated by the symbol:

Alarms are saved in the memory.

Example:

٠ heat pump in alarm or system main alarm

2- description of the alarm and date/hour of the event Alarm status:

- text in RED = active alarm ٠
- text in BLACK = alarm resetted by the user (by the Reset button) .
- text in GREEN = alarm reset (resetted by the user), or alarm reset . without user intervention

For contact the After Sales Cent	ire
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- 1- Open the Settings menu
- 2- Open the Info tab to access the support information.

 \bigcirc 1 ELECTRIC SYSTEM ENERGY ÷ò-22.5°C 4.1kW I'm heating 2 zones Smart living I am applying 4 action ·ŀ 2.4kW 30.0°C Battery charged in 5 hours 51.0 kWh ≅ 18.3 € 阂 . . . 55.0°C 1.7kW 70% select 1 11:42-4/11/24 Heat pump and installation 3 Reset alarm Clean 2 SpheraEVO 2.0 - Connection interrupted with device 4/11/24 11:42 AM sqa zona 1 - Connection interrupted with device 4/11/24 11:42 AM Ventilconvettore 4 - Connection interrupted with device 4/11/24 11-41 AM sqa notte - Connection interrupted with device 4/11/24 11:41 AM Ventilconvettore 1 - Connection interrupted with device 4/11/24 11:41 AM Sonda di qualità dell'aria 4 - Connection interrupted with device 4/11/24 11:41 AM Back Ahead select 3 (') + 11:06 AM-2/26/24 1 ELECTRIC SYSTEM ENERGY PLANT ÷, 22.5°C 4.1 kW Smart living I am applyi I'm heating 2 zones 2.4kW 30.0°C Battery charged in 5 hours 囱 55.0°C 51.0 kWh ≅ 18.3 € 1.7kW 70% 1 select 1:28 PM-2/26/24 Settings Clivet assistance Contact the nearest Clivet service center, you can search for it at the following link, inserting your state / province: ф General www.clivet.com/en/assistance 4 Electricity A Gas Air quality probe 20 Smart living 2 0

11:48-4/11/24

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MODIFICATION OF THE PROGRAM NAME

Names of the following programs can be customised:

- Domestic hot water
- Elfofresh
- Zone





MODIFICATION OF THE PROGRAM NAME

Use the keyboard to type the name of the program. Key functions:





select 6



CLIVET APP

Search for the Clivet Eye App on PLAY STORE and APP STORE To install:

- download the app
- register with your email + password
- associate your device(s) by entering the serial number and password provided
- access your system by selecting it from the list of associated devices





INSTALLER MANUAL

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INSTRUCTIONS FOR THE INSTALLER

GENERAL WARNINGS

Regulations

The information contained in this manual must be integrated with current statutory regulations and by the standards of good practice. Operate with the safety regulations in force.

Planning

The water and electric system must be determined by the system designers in accordance with the regulation in force.

Installation

All electrical and installation operations should be performed by trained personnel having the necessary requirements by the regulations in force and being informed about the risks relevant to these activities.

Maintenance

Only qualified personnel can operate on the system, as required by the regulation in force.

Modification

Any type the modifications will end the warranty coverage and the manufacturer responsibility.

Breakdown/Malfuction

Using the system in case of breakdown or malfunction voids the warranty.

Disable the system immediately in case of breakdown or malfunction. Contact a certified assistance service authorized by the manufacturer.

Use original spares parts only.



MENU (SETTINGS)

Press the icon to open the Settings menu

CAUTION

Access to parameters or modifications are only allowed to the installer who takes full responsibility, in case of doubt contact Clivet S.p.A.

For any changes not permitted or not approved by Clivet S.p.A., it declines any responsibility for malfunctions and/or damage to the unit/ system.

The following operations are only necessary for special calibrations and configurations, and are therefore only intended for authorised service centres or in any case qualified technicians.

The following can be accessed from tab 2 - General:

- 3 Language change
- 4 Software update
- 5 Connectivity
- 7 Weather
- 8 Settings
- 9 Advanced
- 10 System layout
- 11 Area elements status
- 12 Mixers status
- 13 Energy measuring devices

ŧ () 18:57-4/8/24 1 Â Zona 3 Zona 5 Zona 7 Zona 1 Â 1 Zona 2 Zona 4 Zona 6 Zona 8 SELFOFresh * ≋) DHW Heating Plant in heating Automatic operating ELFOFresh or Press 2 sec 1 < 8:02 AM-4/2/24 General Settings 3 2 🔯 ۲ Change language 4 Ļ Electricity ÷ are update 5 Connectivity Gas 9 A 6 IoT Cloud • Air quality prob K Weather 7 Smart living 8 ¢ Settings 0 9 select 8

ettings	General	Advanced
🔅 General	Change language	Se Installation composition
F Electricity	Software update	😤 Zone element status
Gas Gas	Connectivity	₩ixers status
Air quality probe	loT Cloud	Energy measuring devices
Smart living	€** Weather	
f Info	Settings	
	Advanced	



MENU (SETTINGS)

From the Settings menu, select:

1- Electricity to set the electrical system information.

This information is used by the system to provide personalised statistics and energy tips on the home page of the "ELECTRICAL SYSTEM" and "ENERGY" sections

- 3 Set Installed meter capacity
- 4 Set Maximum photovoltaic capacity
- 5 Select Time slots type:
 - F0: Supply at a single hourly rate
 - F1, F2, F3: Supply at a twice-hourly rate divided into 3 slots
 - F1, F23: Supply at a twice-hourly rate divided into 2 slots

6,7,8 - Depending on the type, set the energy costs for the respective slots.

Note: The values can be found in the contractual conditions stipulated with the electric energy supplier

To complete the operation, drag area "1" upwards.

Save the changes with 9 - Save



select 9



ESS MENU

- From the Settings menu, select:
- 1 ESS to access information on the electrical water tank unit

Settings	General	
🔅 General	Change language	
4 Electricity	Software update	
Gas Gas	Connectivity	
ESS ESS	€ ^{‡‡} Weather	
Mir quality probe		
Smart living		
select	1	
select	09:44-4/12/24	
select	09:44-4/12/24	0 %
Select	09:44-4/12/24 Percentage of charge PV1 input Volt	0 % 0.0 V
Select Select Select Select Select Select Select	09:44-4/12/24 Percentage of charge PV1 Input Volt PV2 Input Volt	0 % 0.0 V 0.0 V
Select Select Select Select Select Select Select	09:44-4/12/24 Percentage of charge PV1 Input Volt PV2 Input Volt BUS Volt	0 % 0.0 V 0.0 V 0.0 V 0.0 V
Select Select Select Select Select Select Select Select	09:44-4/12/24 Percentage of charge PV1 liput Volt PV2 liput Volt BUS Volt DCBUS Volt	0 % 0.0 V 0.0 V 0.0 V 0.0 V
Select Select	09:44-4/12/24 Percentage of charge PV1 Input Volt PV2 Input Volt BUS Volt BAT Chg Volt	0 % 0.0 V 0.0 V 0.0 V 0.0 V 0.0 V
Select Select Select Select Select Select Select	09:44-4/12/24 Percentage of charge PV1 Input Volt PV2 Input Volt BUS Volt BAT Chg Volt R Phase Grid Volt 3	0 % 0.0 V 0.0 V 0.0 V 0.0 V 0.0 V
Select Select	09:44-4/12/24 Percentage of charge PV1 Input Volt PV2 Input Volt BUS Volt BAT Chg Volt R Phase Grid Volt R Phase Grid Volt R INV Volt	0 % 0.0 V 0.0 V 0.0 V 0.0 V 0.0 V 0.0 V
Select	1 09:44-4/12/24 Percentage of charge PV1 Input Volt PV2 Input Volt BUS Volt BAT Chg Volt R Phase Grid Volt R Phase Grid Volt R INV Volt PV1 Input Current	% 0 ∨ 0.0 ∨ 0.0 ∨ 0.0 ∨ 0.0 ∨ 0.0 ∨ 0.0 ∨ 0.0
Select	1 09:44-4/12/24 Percentage of charge PV1 Input Volt PV2 Input Volt BUS Volt BAT Chg Volt R Phase Gid Volt R NAV Volt PV1 Input Current PV2 Input Current	% 0 ∨ 0.0 ∨ 0.0 ∨ 0.0 ∨ 0.0 ∨ 0.0 ∨ 0.0 ∨ 0.0 ∨ 0.0 ∨ 0.0

- 2 Name of the unit in the system configuration
- 3 Scrollable list showing the unit's main parameters


AIR PROBE MENU

From the Settings menu, select:

1 - Air quality probe to access information on the electrical water tank unit

Settings General Gener			
Correctal Image Change language Image Connectivity Image Software update Image Connectivity Image Connectivity	Settings	General	
F Electricity Ces Connectivity Cas Info Smart tiving B ² Weather Info Settings Select 1	🔅 General	Change language	
Ges Connectivity Image: Air quality probe IoT Cloud Image: Smart tiving IoT Cloud	4 Electricity	Software update	
Air quality probe Info Info Select I Veather Select I Veather	Gas Gas	Connectivity	
Image: Smart living Image: Setting s Image: Set Setting s Image: Setting s Select Image: Setting s Select Image: Setting s Image: Set Setting s Image: Setting s Select Image: Setting s Image: Set Setting s Image: Setting s Image: Set Set Set Setting s Image: Seting s Image: Sett	Not Air quality probe	loT Cloud	
info info Settings Settings Select 1 Select 1 V 9/22 AM-4/2/24 Air quality probe status MQ-index Air quality 150.0 ind VOC-Volatile drganic Compounds 250.0 pp CO-Carbon Monoxide 0.5 pp	Smart living	🔐 Weather	
Select 1 <		🗘 Settings	
Select 1 <	U INTO		
Air quality probe status MQ - Index Air Quality 150.0 ind CO2 - Carbon cloxide CO2 - Carbon Monoxide CO2 - Carbon Mo	select	3 Advanced	
CC2 - Carbon dioxide 300.0 pp VOC - Volatile Grganic Compounds 250.0 pp CO - Carbon Monoxide 0.5 pp	select	922 AM-4/2/24	
VOC - Volatile Organic Compounds 250.0 pp CO - Carbon Monoxide 0.5 pp	Select	922 AM-4/2/24	150.0 inde
CO - Carbon Monoxide 0.5 pp	Select < Air quality probe status	922 AM-4/2/24	150.0 ind 300.0 pp
SQANOTE OUI A Mathema	Select Air quality probe status Souch of guild's deluktion 1	9:22 AM-4/2/24 9:22 AM-4/2/24 KQ-Index AIr Quality CC2 - Carbon cloxide VCC - Volatile Grganic Compounds	150.0 ind 300.0 pp 250.0 pp
CH4 - Methane 22.5 pp	Select Air quality probe status Sound of guild delivant 1 Sound of guild	Atvancet SE Atvancet 9/22 AM-4/2/24 VQ2 - Nafex Air Quality C02 - Carbon dioxide VVO2 - Volatile Organic Compounds C0 - Carbon Monoxide VVD - Wolatile Organic Compounds C0 - Carbon Monoxide VVD - Volatile Organic Compounds C0 - Carbon Monoxide VVD - Volatile VV	150.0 ind 300.0 pp 250.0 pp 0.5 pp
NO2 - Nitrogen Diavide 4	Select Air quality probe status SONGA DI QUALTA GELLARIA 1 SQA NOTTE	Atvancet Second Seco	150.0 ind 300.0 pp 250.0 pp 0.5 pp 22.5 pp 22.5 pp
S0A 2004 1 NO2 - Nitrogen Dioxide 4 27.8 p	Select Solica tri guality probe status Solica tri guality actuality Solica tri guality	Atvancet SE Atvancet Second S	150.0 ind 300.0 pp 250.0 pp 0.5 pp 22.5 pp 22.7 8 pp 27.8 pp 27.8 pp
soles to gould's Declaria.4 NO2 - Nitrogen Dioxide 4 27.8 p soles to gould's Declaria.4 Temperature 23.4	Select Solica tri guality probe status Solica tri guality dell'abria 1 Solica tri guality activity dell'abria 1 Solica tri guality dell'abria 1 Solica tri guality dell'abria 4	Atvancet SE Atvancet Second S	150.0 ind 300.0 pp 250.0 pp 2.2.5 pp 2.2.5 pp 2.7.8 pj 2.7.8 pj 2.3.4 i 5.0 0
sak zowa 1 NO2 - Nitrogen Dioxide 4 27.8 p somon brigdwurft beitume 23.4 Humidity 59.0 Bartometric Pressure 982.3 mB 98.2 mB 98.2 mB	Select Solica tri quality probe status Solica tri quality dell'Adria 1 Solica tri quality dell'Adria 4	Atvancet S Atvancet S	150.0 ind 300.0 pp 250.0 pp 2.2.5 pp 2.2.5 pp 2.7.8 pj 2.3.4 5.9.0 982.3 mB
SIQA 2014 1 NO2 - Nitrogen Dioxide 4 27.8 p Temperature 23.4	Air quality probe status Source of QUALITA COLLAMA 1 SOURCE OF QUALITA C	Atvanced 922 AM-4/2/24 1 922 AM-4/2/24 VAQ-Index Air Quality C02 - Carbon dioxide VOC - Volatile Organic Compounds C0 - Carbon Monoxide CH4 - Methane N02 - Nitrogen Dioxide Temperature	150.0 ind 300.0 pp 250.0 pp 0.5 pp 22.5 pp 27.8 pj 23.4
SIGA 2004 1 NO2 - Nitrogen Dioxide 4 27.8 p SIMEA OF QUARTA DELIXINA 4 Temperature 23.4 Humildity 59.0	Air quality probe status SOMEA EI COMUTA DELLARIA 1 SOMEA EI COMUTA DELLARIA 1 SOMEA EI COMUTA DELLARIA 4	3 Atvanced 922 AM-4/2/24 UQ-Index Air Quality CO2 - Carbon dioxide VOC - Volatile Organic Compounds CO - Carbon Monoxide CH4 - Methane NO2 - Nitrogen Dioxide Temperature Humidity	150.0 ind 300.0 pp 250.0 pp 2.5.5 pp 22.5 pp 27.8 pj 23.4 59.0
SAR 2014 1 NO2 - Nitrogen Dioxide 4 2.7.8 p SOREA & GUALTIK BELLANIA 4 Temperature 2.3.4 Humidity 59.0 3.9 Barometric Pressure 982.3 mB 3.9	Air quality probe status Source of guild 15 cellularia	Atvancet S Atvancet U 922 AM-4/2/24 KQ-Index Air Quality 022 - Carbon dioxide VOC - Volatile Organic Compounds CO- Carbon Monoxide CH4 - Methane NO2 - Nitrogen Dioxide Temperature Humidity Barometric Pressure	150.0 ind 300.0 pp 250.0 pp 22.5 pp 22.5 pp 27.8 pj 23.4 i 59.0 982.3 mB

2 - List with the names of the air quality probes available in the system configuration.

3 - Dynamic icon representing the air quality index detected by the probe

4 - List of environmental parameters measured in real time by the air quality probe

SOFTWARE UPDATE

From the Settings menu, select:

2 - General to access information on the electrical water tank unit.

Note: The software update page can be accessed directly also by tapping the software update availability notification icon in the top bar "1"



ettings	General
🔅 General	Change language
4 Electricity	🛓 Software update
🔥 Gas	Connectivity
No Air quality probe	loT Cloud
Smart living	₽ ²⁵ : Westher
f Info	Settings
	See Advanced

ettings	General
🔅 General	Change language
4 Electricity	Software update
🔥 Gas	Connectivity
M Air quality probe	loT Cloud
Smart living	₩eather
f Info	t Settings
	St Advanced

<	19:19-4/11/24	(÷
Software version	Software update available	
Installed: v4.05.11 03/04/24	Version:	v4.06.00 04/04/24
V4.06.00 04/04/24 Update from USB	Release notes: - Implementato schedulatore orario per la "autoconsumo" e 'priorità batteria". - Implementati riarcian conturna per la Sine impostare un'orario di inizio, di fine e una per Implementati funzionati di diricarica sman Smart Living attiva. Verranno visualizzati si la Smart Living riterà di ottimizzare lenergi fascia oraria più economica. - Integrata nuovo Fresh Large EVO. - Implementata opzione della pertura delle Tresh è im modalità ridotta. - Implementata gestione della pertura delle renante BMZRA seconda della chichesta ca - Integrata nuova seconda della chichesta ca - Integrato parametro 27 che consente di cap	6 yr ESS con le modalità tryp ESS dalla rete, è possibile rcentuale di massima di ricarica. to pel a Sinergy USS per gli utenti con uggerimenti nella dashboard quando a ricaricando la batteria duranante la velocità di ventilazione quando il valvole dei circuiti a quattro tubi ldo/rteddo dei terminali. imbiare il setooint dei terminali slave.
	5 Download up	odate

4 - Software version displays the following information:

- Installed: version currently in use in the device
- Available: Version number available and release date
- Update from USB: the software version of the panel can be updated with a USB flash drive
- 5 Software update displays the following information:
 - Version available and release date
 - Download update: Download button for

6 - **Release notes** displays the list of new features/bug fixes introduced with the new version available.



SOFTWARE UPDATE

When the download is complete, press Install update to update the software

<	19:19-4/11/24	÷
Software version	Software update available	
stalled: v4.05.11 03/04/24	Version:	v4.06.00 04/04/24
vailable: v4.06.00.04/04/24	Release notes:	
Update from USB	- Implementato schedulatore orario per l' - utoconsumo e "priorità batteria" Implementata ricarica notturna per la Simpostare urorario di inizio, di fine e una - Implementata funzionalità di ricarica si Isomat Living riterrà di ottimizzare fene - Implementato opzione di regolazione di - Implementata opzione di regolazione di - Implementata opzione dell'apertura de - Inteorato parametro 27 che consente di - Inteorato parametro 27 che consente di	a Sinergy ESS con le modalità inergy ESS dalla rete, è possibile percentuale di massima di ricarica. mart per la Sinergy ESS per gli utenti con is uggermenti nella dashiboard quando rgia ricaricando la batteria duranante la ella velocità di ventilazione quando il lle valvole dei circuiti a quattro tubi cado/riedd od el terminali i cambiare il setooint dei terminali slave.
Please wait for ownload to com- plete	6	
	19:19-4/11/24	ę
Software version	19:19-4/11/24 Software update available	×4.06.00.04/04/24
Software version nstalled: v4.05.11 03/04/24 vvaliable: v4.06.00 04/04/24	19:19-4/11/24 Software update available Version: Release notes:	v4.06.00 04/04/24
Software version nstalled: v4.05.11 03/04/24 vallable: v4.06.00 04/04/24 Update from US8	19:19-4/11/24 Software update available Version: Release note: Implementato schedulatore orario per "autoconsumo" e priorità batteria". Implementate ricorde noto une per un - Implementate funzionalità di ricarica so Smart Living riterrà di ottimizzare fem Smart Living riterrà di ottimizzare fan Smart Living riterrà di ottimizzare fan Smart Living riterrà di ottimizzare fen chi con per la consolità di ricarica so Implementata opzione di regolazione di - Implementato apzione di regolazione di reste in modalità ridotta. - Integrata nuovo Fresh Large EVO. - Indepentata gestione dell'apertura di tramite BMZRA sa seconda della richiesta - Integrato nametro 27 che consente e	v4.06.00 04/04/24 Ia Sinergy ESS con le modalità sinergy ESS dalla rete, è possibile percontuale di massima di ricarica; mant per la Sinergy ESS per gli utenti con ti suggerimenti nella datibicori d quanto ti suggerimenti nella datibicori di quanto ti andi chanto di atterito di atterito di atterito per la ciancinacio dei batterito duranante la ella velocità di ventilazione quando il die valvole dei circuiti a quattro tubi a cadio./iredo dei terminal.
Software version stataled: v4.05.11 03/04/24 valiable: v4.06.00 04/04/24 Update from USB	19:19-4/11/24 Software update available Version: Release notes: Implementato schedulatore orario per succonsumo e 'priorità batteria'. Implementata icraica no turna per la si impostare un'orario di inzio, di fine e un la smart Living attiva. Verrano visualizzare fen fascia oraria più economica. Integrata nuovo frena Large EVO. Implementata opzione di regolazione Integrata nuovo frena Large EVO. Implementata opzione di regolazione Implementata da totorio. Implementata	v4.06.00 04/04/24 la Sinergy ESS con le modalità sinergy ESS dalla rete, è possibile percentuale di massima di ricarica. mar per la Sinergy ESS per gli utenti con ti suggerimenti nella dashboard quando regia incaricando la batteria duranante la ella velocità di ventilazione quando il ella velocità di ventilazione quando il ella valvole dei circuiti a quattoro tubi a canbiare il sectoorit dei terminali slave. rado/irredo dei terminali. di cambiare il sectoorit dei terminali slave. tate some minutes. tate: percenti dei circuiti di cambiare di slave. tate some minutes. tate some minute

Update in progress. This takes a few minutes.

Wait for the update operations to finish.

When finished, the main page will be displayed again.

INTERNET CONNECTION

The Connection screen displays the information on:

A - CONTROL4 NRG's Internet connection status and the interface used (Ethernet or Wi-Fi*)

- B Internet connection status
- C Enables/disables the Wi-Fi board (where available)
- D List of available Wi-Fi connections and any connected network
- E Cloud connection status

* Connection to a Wi-Fi network is only possible with a CONTROL4 NRG version that has Wi-Fi support







BUS RS485



SHIELDED CABLE

- 50-metre spool (optional CBSX)
- Pair of twisted and shielded conductors
- Conductor section 0,22 mm²...0.35mm²
- Nominal capacity between conductors < 50 pf/m
- Typical impedance 120 Ω
- Use a suitable cable to RS485 network

SERIAL LINE

- Maximum number of components: 40
- Maximum length of every single serial line 1000 m
- Difference in potential between the "earth" of the two RS485 devices: lower than 7 v
- Provide guards to protect against electrostatic discharges of atmospheric origin
- Complete last network component.

INSTALLATION OF THE SERIAL LINE

- Performed by trained and qualified personnel in data communication networks
- Performed up to standard
- Separated from other cables, especially from power cables or supplied with different voltages
- Far from cables or devices that can affect electromagnetically.

ELECTRICITY METER - SINGLE PHASE

The energy value is acquired by the CONTROL4 NGR via a ModBUS serial communication line





ELECTRICITY METER - THREE-PHASE

The energy values is acquired by the CONTROL4 NGR via a ModBUS serial communication line

Electrical connections



SYSTEM DIAGRAMS

New building with radiant panels and radiators



Indicative diagram

The components of the system are not indicated, because they must be specified by both the Designer and Installer (e.g. expansion tanks, vents, cocks, calibration/safety valves, etc.)











UNIT FOR PRODUCING THERMAL AND COOLING ENERGY		
SPHERA EVO 2.0 EASYHybrid SQKN-YEE 1 BH+MISAN-YEE 1 S 2.1-8.1 R-32		











UNIT FOR PRODUCING THERMAL AND COOLING ENERGY		
Edge EVO 2.0 - EXC WISAN-YME 1 S 2.1-14.1		







UNIT FOR THE PRODUCTION OF DHW				
AQUA Plus SWAN-2 190-300				



















GAIA ARIA MSER-XEE 31-61 Refine aria Refine aria





UNIT FOR PRODUCING THERMAL AND COOLING ENERGY













UNIT FOR PRODUCING THERMAL AND COOLING ENERGY











ELFOENERGY GROUND WSH/N-EE17-121 R-410A Image: Comparison of the product of













CONNECTION WITH THERMOSTAT (AURA AC VERSIONS)



A = Thermostat









AMBIENT TERMINALS	
ELFOSPACE BOX3 CFK 007.0 - 011.0 - 015.0	





AMBIENT TERMINALS



CC2 - 2-pipe system (size 021.0 and 031.0) CC4 - 4-pipe system (size 021.0)



CC2 - 2-pipe system (size 041.0) CC4 - 4-pipe system (gr 031.0 and 041.0)

































SMART THERMOSTAT

HID-TSmart







SYSTEM ACCESSORIES

CONTROL4 NRG



CONTROL4 NR	G

193x132x5 3mm LxHxP

PS installation box Metal fixing bracket 196,3x141x80,9 mm LxHxP

(mounting accessories supplied in the package)

Room thermostats and sensors



HID-TSmart T

Thermostat with 3.5" touchscreen display and temperature sensor 112x77x18 mm LxHxP



HID-TSmart T&H

Thermostat with 3.5" touchscreen display and temperature and humidity sensor 112x77x18 mm LxHxP



HIDURNX

HIDUR Modbus temperature and humidity sensor HIDUR (built-in) In built-in 503 box (by only) 22,4x45,5x51,6 LxHxP



z-IAQX

Multi sensor for air quality acquisition with 9 monitored ambient variables 110x70x28 mm LxHxP

Electricity meter



M1NRGX

Electricity meter only for a single-phase unit. Assembly on vertical or horizontal DIN rail.

63x46,2x26,4 LxHxP



M3NRGX

Electricity meter only for a three-phase unit. Supplied with three amperometric transformers type "split core" Assembly on vertical or horizontal DIN rail. 70,8x55,26x17,5 LxHxP

Installation



Radiant panels - Ambient terminals



BMZRX

Radiant area module with generic input/ output mode with RS485 communication port + TTL/485 converter for Modbus temperature and humidity sensor. 157x90x60 mm LxHxP



CMRSX Single area module with RS485 communication port; 6 DIN modules + 2 DIN modules of the TTL/485 converter

105x90x60 mm

LxHxP

LxHxP



EMRSX Mixing unit control module;

6 DIN modules + 2 DIN modules of the TTL/485 converter

105x90x60 mm

Interface module



DOMX Connection device with home automation systems

53x92x63 mm

LxHxP



SYSTEM ACCESSORIES

MODULE OF RADIANT

Module addressing is done using the selectors.



There are three red selectors on the front of the module. To change addresses, refer to selector A and B as shown below:

SELECTOR A = Set X10

SELECTOR B = Set X1

Example to assign address 12: : Selector $\mathbf{A} = 1$, selector $\mathbf{B} = 2$

PROCEDURE

1 - Switch off the module

2 - Using a flat blade screwdriver, turn selectors A and B to the required position to set the address

```
Example to assign address 12:
Selector A = 1, selector B = 2
```

3 - Switch on the module

If the system configuration includes several radiant area modules (MAX 5):

- the first must have address = 11
- the second must have address = 12

the third must have address = 13

- the fourth must have address = 14
- the fifth must have address = 15

COMPONENT PARAMETERS

ONTROL4 NRG will automatically set the control of the various outputs.

Below are the parameters that **are set by the autoconfiguration** on the various system components; the list should be considered as indicative and is an operational outline to be assessed based on the type and configuration of the system.

Setting parameters				
Channel	Parameter	Value		
1	P02	0 = Disabled		
2	P03	1 = Thermoregulation 1G 2 = Thermoregulation 2 G		
		3 = I/O		
6	P07	4 = Relay control ID 5 = Thermostat Module		

Serial Communication Parameters				
Parameter	Mnemonic Name	Description	Value	
33	Index	Device address 11,1,		
34	Baud Rate	Baud Rate 0=4800 1 :9600 2 :19200	1	
35	Parity	Parity 0=NO / 1=Odd 2=Even 0		

SYSTEM COMPONENT CONFIGURATION

Radiant area module: configuration of the channels					
Modbus	Para	meter	Value	Description	
1001	02	(A)	0 = Disabled 1 = Thermoreg. 1 G HID-T3 2 = Thermoreg. 2 G HID-T3 5 = Thermostat Module - HID-T2;	EnChannel1: Type of function associated to channel 1 Electromechanical thermostat (connected between "-" and "GND":	
			6 = Electromechanical thermostat	closed = active call; No par.71 = 1)	
1002	03	(A)	As EnChannel1	EnChannel2: Type of function associated to channel 2	
1003	04	(A)	As EnChannel1	EnChannel3: Type of function associated to channel 3	
1004	05	(A)	As EnChannel1	EnChannel4: Type of function associated to channel 4	
1005	06	(A)	As EnChannel1	EnChannel5: Type of function associated to channel 5	
1006	07	(A)	As EnChannel1	EnChannel6: Type of function associated to channel 6	
1054	55	(A)	0 = Summer only 1 = Winter only 2 = Summer / Winter	UseMode1: Use type of channel 1	
1055	56	(A)	As UseMode1	UseMode2: Use type of channel 2	
1056	57	(A)	As UseMode1	UseMode3: Use type of channel 3	
1057	58	(A)	As UseMode1	UseMode4: Use type of channel 4	
1058	59	(A)	As UseMode1	UseMode5: Use type of channel 5	
1059	60	(A)	As UseMode1	UseMode6: Use type of channel 6	
1030	31	(A)	3	Delay of the dew alarm signal (E07), set at 15 minutes to prevent delayed alarm signals, due to the deactivation of the compressor, once the set has been reached.	
1031	32	(A)	0.0	It is an offset on the dew point, normally it is set at -2C°, considering that between the temperature of both the panels and surface there is a difference and on the latter, condensation is not formed on the panels. This allows working with lower water temperatures at the dew point, enhancing the cooling capacities.	
1069	870	(A)	20C°	Dew point limit exceeded, whose channel is excluded automatically from the calculation, in order to not affect the water temperature inside the entire system and the head closes.	
1070	71	(B)	0 = Clivet 1 = Modbus; 2 = Modbus Touch	If thermostat model =1 (Modbus thermostats) the parameters from P02 to P07 cannot be set at 5 or 6.	
1071	72	(B)	0 = Temperature + RH 1 = Temperature only 2 = RH only	ThermostatCh1 Only if thermostat=1	
1072	73	(B)	As TermostatCh1	ThermostatCh2 Only if thermostat=1	
1073	74	(B)	As TermostatCh1	ThermostatCh3 Only if thermostat=1	
1074	75	(B)	As TermostatCh1	ThermostatCh4 Only if thermostat=1	
1075	76	(B)	As TermostatCh1	ThermostatCh5 Only if thermostat=1	
1076	77	(B)	As TermostatCh1	ThermostatCh6 Only if thermostat=1	

A: parameters set by the AUTOCONFIGURATION function

B: should always be set only with probe ambiant HID-UR (Parameter 71 = 1)



SYSTEM ACCESSORIES

MODULE OF RADIANT AREAS

Example on how to use:

Step management

Output 5 controls the shut-off valve for the radiant panel **Radiator management** Output 6 controls the water shut-off valve for the heated towel rail





SYSTEM ACCESSORIES

MODULE OF RADIANT AREAS WITH HID-UR BUILT-IN MODBUS TEMPERATURE AND HUMIDITY SENSOR

The thermostats run only if combined with the radiant module.

Example on how to use:

Step management

The sensor 1 - 2 - 3 controls one area with 1 component **Double step management** The sensor 4 controls one area with 2 components **Radiator management** The sensor 6 controls the value for the bested towal rails

The sensor 6 controls the valve for the heated towel rails Warning: to disable the humidity function (see page 94)

Set as indicated in the figure





* Serial line

Temperature and humidity sensors

4-conductor shielded cable 2x0,75 + 2x0,22mm2, distance max 1000m
SYSTEM ACCESSORIES

RADIANT AREA MODULE WITH ELECTRO-MECHANICAL THERMOSTAT WITH DRY CONTACT

This option does not allow the temperature to be displayed by Control4 NRG, it only allows ON/OFF management of the area and time schedule. This option does not allow temperature changes to be made by Control4 NRG.



ADDRESSING

Each unit inside the network is recognised thanks to an address. The address must be stored in the memory of the unit using a keyboard or thermostat.

Serial addressing				
Domestic hot water module	1			
Heat pump	2			
Unit for fresh air (Elfo Fresh EVO)	3,4,5,6			
Generic I/O modules	7,8			
Unit Sinergy	9			
Elfo Pack	10			
Multiple area modules	11,12,13,14,15			
Terminals / Single zone modules	17,18,48,49,60,61,*			
Mixing module	50,51,52			
Air quality probes	110121			
HID-TSmart thermostats	150179			
Electricity meter	170,171,172			

* The addresses 17,18 and next are used both for terminals and for the single zone modules (page 89). The addresses with the lowest value must be assigned to single zone modules. Example: First zone module: address 17 Second zone module: address 18 First terminal:address 19 Second terminal: address 20

SPHERA EVO / SPHERA EVO 2.0 / WISAN-YME 1 S EDGE EVO 2.0 - EXC



WSAN-YMI 21-141 EDGE EVO



•

Method A Setting Unit main board S3 = 2

The Modbus addressing of the unit can be set in two modes:

Method B Setting For serviceman > 17 HMI address set > 17.2 HMI address from BMS = 2



Enabling

WSAN-YSI 10.1-22.2 SHEEN

		20/11/2	017	MON 10:	35 A
ON	COOL	Tws	55 °C	ONLINE	16
(!)	₩	Tw T5	55 °C 55 °C	ERROR	E1
0 <u>7</u> 1	VEEKLY TIN	IER ON	() TIMER	DN
45%		\$ C	存象	. 🖵 🔇	÷
45%	₫ 60% «	* ©	花歌	. 🗅 🤇	÷
45%	£ 10 €0% •	* ©	存象	. 🖵 🤇	ON/OF
45%	<u>0</u> 60% (* ©	і́а ≉ ▲	. 🗅 🤻	⊕ ON/OFI

with the rotary switches (Method A, for AA models, size 21-81) or from the HMI keyboard

with the rotary switches (Method A) or from the HMI keyboard (Method B, Sphera Evo 2.0,

For serviceman > 17 HMI address set > 17.2 HMI address from BMS Check that each unit has a different address.

Menu > Project menu > set password >controller select > modbus >YES CONTROLLER SELECT



Modbus address = 2



WSAN-YMI 21-81 EDGE



S3

681

Setting Unit main board S3 = 2

ELFOFRESH EVO CPAN-YIN SIZE 2



if one unit is present: address = 3

if four units are presents: First unit address = 3 Second unit address = 4 Third unit adress = 5 Fourth unit adress = 6

Enter the password Maintenance operator to access the parameters.

Parameters to be modified					
Parameter	Mnemonic Name	Description	Value		
1.15	BmsAddSet	ModBus serial address	3,4,5,6		

Press MENU		
Select "Assistance Setting"	▲ UP ▼ DOWN	MERU INTERFACE SEATING SERVICE INFORMATION ASSISTANCE SETTING NETWORK SEETING
Press	ОК	
Enter the PASSWORD		ASSISTANCE SETTING PLEASE INPUT THE PASSWORD: 0 0 0 00 00 00 00 00 00 00 00 00 00 00
Press	ОК	
Select "Operation Parameter"	▲ UP ▼ DOWN	ASSISTANCE SETTING OPERATION PARAMETER R. HUMIDITT PARAMETER R. RESET COMPRESSOR START TIMES A. MANUALLY DEFROST S. ERROR RECORD REMOVE C. CANCEL ASSISTANCE SETTING B. ANDRE C. CANCEL ASSISTANCE SETTING C. CANCEL ASSISTANCE SETTING C. CAN
Press	OK	
Select "1.15 BmsAddSet"	▲ UP ▼ DOWN	I. OPERATION PARAMETER 1.13 OffsetT1 0 °C · 1.14 PoweroffMem 1 1.15 DMSAddSet 1
Edit value as indicated in the table		



SPHERA EVO 2.0 EASYHYBRID

¥2	07:30 - 13.04.2021	🛷 👫 14°
BOILER	é ¢	ACS
16.2 °c ≋≋ ZONE 1		46.8 °c
28.0 ⋅c [™] ZONE 2		
() COMF.	☆ COOL	ID. 🌫 SETTING

Parameters to be modified					
Parameter	Mnemonic Name	Description	Value		
101	Index	ModBus supervision serial address	2		
102	Baud Rate	Baud Rate (0=4800 / 1=9600 2 =19200)	1		
103	Parity	Parity 0=NO / 1=Odd 2=Even supervision serial	0		

Enter the password Maintenance operator to access the parameters.



CFW-2 1 - 5 MOOD



	On / off switch				
SW1		network			
ON 1 2		\sim		01 - 16	
		~		17 - 32	
ON 1 2		~		33 - 48	
		~		49 - 64	

CFFC / CFFU / CFFAC / CFFAU 1-12 AURA



	On / off switch			
S4		network		
		\sim		01 - 16
ON 1 2		\sim		17 - 32
		\sim		33 - 48
ON 1 2		~		49 - 64

CFK 021.0-041.0 ELFOSPACE BOX3



	On / off switch			
S4		network		
ON 1 2		~		01 - 16
ON 1 2		~		17 - 32
		~		33 - 48
		~		49 - 64



CFK 007.0-015.0 ELFOSPACE BOX3

	On / off switch			Address	
	S1		ENC1		network
					64
	ON 1 2		\sim		01 - 15
			\sim		16 - 31
			\sim		32 - 47
	ON 1 2		\sim		48 - 63
SWAN-2 190-300 - AQUA PLUS					
			Addressing		
	Press 3 sec.		MODE	•	ENTER Press 3 seconds for lock/unlock
	Select C02				
	Press Press				
	Select 1				
	Press		ENTER Press 3 seconds for lock/unlock		



GAIA ARIA and ACQUA version AC / GAIA MAXI / GROUND MEDIUM / GAIA L COMFORT and HYBRID / GAIA-i / SPHERA

15-04-2011	09:30	Esterna: 25.6*
25.9° 41.2°		
00#		
		•
1\////-	- / +	

Parameters to be modified					
Parameter	Mnemonic Name	Description	Value		
315	Index	ModBus supervision serial address	2		
316	Baud Rate	Baud Rate (0=4800 / 1=9600 2 =19200)	1		
317	Parity	Parity 0=NO / 1=Odd 2=Even supervision serial	0		

Enter the password Maintenance operator to access the parameters.

Press Confirm	1 /2	264.001 003 2600 307 0 = 3,0 # 0 = 3,0 #
Press to select the "Settings " menu Confirm		Heat pump Boiler only DHW only Normal operation Settings Operation status
Press to select the "Parameters " menu Confirm and enter the PASSWORD		HP - Parameter Secondary circuit 1 Set point Supply set Current set Parameter / PWD
Press to select the "Communication " menu Confirm		HP - Parameter All Configuration Set point Demand limit Communication
Select the parameter to be modified Confirm		HP - Parameter Id 315 address ModBus Svision address Min 0 Max 127 Valore 1
Enter the value Confirm the value entered		HP - Parameter Id 215 oddross In Min 0 n M Max 127 M 2
Set parameters 316 and 317 Press to return to the main screen		HP - Parameter Id 315 address ModBus Svision address Min 0 Max 127 Value 2



VULCAN MEDIUM

	Vulcan M	edium - Parameters to be modified	
Parameter	Mnemonic Name	Description	Value
315	Address	ModBus supervision serial address	2
316	Baud Rate	Baud Rate (0=4800 / 1=9600 2 =19200)	1
317	Parity	Parity 0=NO / 1=Odd 2=Even supervision serial	0

Enter the Maintenance operator password to access the parameters.

Press. Rotate to select the "Scheduling" menu.	Main Menu Stata Scheduling Date and hour Password
Press. Rotate to select the "Configuration" menu.	Main Menu Stata Alarms Configuration Date and hour
Press. Rotate to select the "Machine" menu.	Configuration Menu Keypad Unit System's variables
Press. Rotate to select the unit.	Unit configuration All Configuration Setpoint Charge compensation
Press. Select the parameter to be modified.	Manufacturer parametersId 39MaxSetHeatMax Set in heatMin -60Max 90Value40.0
Press Enter the value.	Manufacturer parametersId 3Min- 60.0Max90.0Min50Value40.0
Press Press to return to the main screen.	Manufacturer parametersId 39MaxSetHeatMax Set in heatMin -60Max 90Value50.0



WSAN/T-XIN / WSN/T-XIN



Parameters to be modified			
Parameters	Description	Value	
CF30	ModBus protocol controller Address	2	
CF31	ModBus protocol Baud Rate (2=4800 / 3=9600 4 =19200)	3	
CF32	Parity modbus 1=EVEN / 2=NONE / 3=ODD	2	
CL43	DI4 Digital input Configuration (remote OFF)	-2	
CL44	DI5 Digital input Configuration (remote Summer / Winter)	0	

Press	esc _ set	PAr
Press	set	CL
Select CF menu	≥ , ≈	CF
Press	set	CF01
Select CF30	≥, ≈	CF30
Press	set	0
Set the value	≥, ≈	2
Confirm	set	2
Back to the previous menu	esc	
Repeat the sequence for the other parameters		



ELFOENERGY / CPAN-U



Units can be CPAN-U 70-650 and / or CPAN-U 17-51

if one unit is present: address = 3

if four units are presents: First unit address = 3 Second unit address = 4 Third unit adress = 5 Fourth unit adress = 6

ELFOEnergy - Parameters to be modified			CPAN-U - Parameters to be modified				
Parameter	Mnemonic Name	Description	Value	Parameter	Mnemonic Name	Description	Value
164	Address	ModBus serial address	2	165	Address	ModBus serial address	3,4,5 or 6
165	Baud Rate	Baud Rate (0=4800 / 1=9600)	1	166	Baud Rate	Baud Rate (0=4800 / 1=9600)	1
166	Parity	Parity 0=NO / 1=YES	0	167	Parity	Parity 0=NO / 1=YES	0

1	Press	551	Parameter Value 1 0.
2	Enter the PASSWORD	• •	0 3 2 1
3	Access parameter 164	↑↓	1 6 4 X Y
4	Edit value as indicated in the table	• +	1 6 4 2
5		Repeat the sequence for the o	other parameters indicated in the table
6	Save in the memory Exit	SET	1 0. 3



HID-TSMART THERMOSTATS

The indications given are valid for all versions of HID-TSmart
5.6 kW ANTERY

HID-TSmart addressing		
Unit	Modbus address	
HID-TSmart 1	150	
HID-TSmart 2	151	
HID-TSmart 3	152	
HID-TSmart 4	153	
HID-TSmart 30	179	

The thermostat is connected in daisy-chain topology (in-out) directly to the CONTROL4 NRG serial bus 485

ADDRESSING PROCEDURE

HID-TSmart is supplied by default with Modbus address **150**. Follow the procedure below to address the HID-TSmart if there is more than one unit in the system.

Step	Action	Picture
1	Alimentare il dispositivo	
2	Press for more than 5 seconds at the bottom center where the context bar is present	27.3°
3	You access the CONFIGURATION menu	
4	Select PARAMETERS menu	CONFIGURAZIONE
5	Scroll down to the Address parameter	PARAMETRI Livello Backlight Alto Basso Backlight 20)% Atto Backlight 100)% Costante di Ritardo 1 Indirizza 150 Baudrate 9,6
6	Select the numeric value to the right of the parameter name	PARAMETRI Livello Backlight Alto Basso Backlight 20)% Alto Backlight 100)% Costante di Ritardo Indirizo Baudrate 9.6)Kbps



7	Set the desired address using the + and - keys displayed on the screen	PARAMETRI Livello Backlight Alto Basso Backlight 20)% Alto Backlight 100% Costante di Ritardo 1 Indirizzo 150 Baudrate 9.6)Kbps - + DK
8	Press OK to confirm	PARAMETRI Livello Backlight Alto Basso Backlight 20/% Alto Backlight 100/% Costante di Ritardo 1 Indirizzo 150 Baudrate 9.6 ktbps - + OK EDIT
9	Verify that the BaudRate parameter is set to 9.6Kbps	PARAMETRI Livello Backlight Alto Basso Backlight 20)% Atto Backlight 100)% Costante di Ritardo 1 Indirizzo 150 Baudrate 9.6
10	AAfter making the changes, press the icon at the top right to return to the main screen	PARAMETRI Livello Backlight Alto Basso Backlight 20 Alto Backlight 100 Costante di Ritardo 1

Diagnostics

When the module is powered, it boots up during which the display shows the thermostat's Modbus address.



HID-TI6 THERMOSTATS



The thermostat only works in conjunction with ELFOROOM2 fan coil units



1) Connection terminal block (fancoils serial)

- 2) Connection terminal block of presence contact
- 3) Electronic board
- 4) Serial connection to the CONTROL4 NRG bus (via serial RS-485)

Use the icons - + to move inside the menu.

Use the icon 0 to select menu items and to confirm changes made. Pressing 0 and confirming the change will switch to the next item. To exit from menu:

- Press the icon 🔱 for 10sec.
- Or wait 30 sec. for automatic shutdown

Attention: after 30 seconds from the last action, the control goes off and the settings is memorised.



DEVICE ADDRESS

To view and change the address:

- with panel in stand-by press and hold for 5 sec. the AUTO key.
- it appears address 001 flashing
- use the and + keys to set a value from 1 to 255
- press the 🖒 button and wait 10 seconds to confirm the setting

It is advisable to table the addresses that the individual fancoils must assume so that they are then easily identifiable once recognized by the system.

Contact Clivet service for changing the unit parameters for connecting the HID-T6 thermostat.

Fancoil address	Destination
Andress 17	Leave free
Andress 18	kitchen
Andress 19	Livingh room
Andress 20	Room 1

Attention

Do not leave fancoils with address 001.

This precaution will allow any substitutions and / or additions of devices on the network.

FEATURES OF THE SERIAL PORT

Protocol

The "Modicon ModBus" RTU serial communication protocol, with the following settings:

- Bauderate = 9600
- Data bits= 8
- Parità = none
- Stop bit = 1

See the accessory instruction sheet for configuring and modifying the operating parameters.



HID-UR TEMPERATURE AND HUMIDITY SENSOR

HIDUR built-in temperature and humidity sensor



Sensor a	Sensor addressing		
Channel	Flashings		
1	2		
2	4		
3	6		
4	8		
5	10		
6	12		

The thermostat runs only if combined with the radiant module.

Signalling LED

A multi-colour LED is fitted on the front part (visible from the front slot) which indicates the device status.

After powering on: - The device boots up.

- The device is set to operating mode.

Boot up. After turning on, the red LED flashes fast once. If there are no problems, the LED goes off, otherwise it continues flashing.

Red LED flashing. Indicates that no firmware is installed.

Red LED on fixed. Indicates that the sensor is not communicating with the master board. The red LED stays on for maximum 4 seconds and then goes off in the next 8 seconds.

Operating mode. During operation the LED is off. Note that in the first 30 seconds of turning on, a blue LED flashes to indicate proper functioning.

Address assignment. During address assignment, the green LED comes on waiting for the onboard button to be pressed. After assignment, the LED goes off and flashes N times (the number of flashes corresponds to the new address).

Address check. Pressing the onboard button during sensor operation, the green LED flashes N times (the number of flashes corresponds to the new address).

On the back of the sensor there is an addressing button:

1 - Power up and hold down the addressing button; the blue LED will flash 6 times.

2 - Count the number of slow flashes of the green LED up to the address to be assigned and release the button.

3 - After 7 flashes of the blue LED, the sensor repeats the number of the assigned address with flashes of the green LED and confirms the procedure with 1 flash of the blue LED.

Refer to page 68 to address the radiant area module.

Addressing key





MIXING MODULE

Mixing unit control module for managing a section of the circuit at a different temperature to that of the main system.

The area module must be powered at 230 Vac 50 Hz. Mounting on a DIN rail

Type of cable used: 2x0.35 mm2 with screen on GND

Parameters to be modified			
Parameter	Mnemonic Name	Description	Value
33	Index	Device address	50,52
34	Baud Rate	Baud Rate 0=4800 1 :9600 2 :19200	1
35	Parity	Parity 0=NO / 1=Odd 2=Even supervision serial	0



RS485 MODULE

Addressing can be done using the selectors on the RS485 module.

Follow this procedure:

1 - Disconnect power supply to the RS485 module and mixing module

2 - Set the address with the selectors on the RS485 module

S5 = hundreds. Must always be set to OFF

```
S3 = tens
```

S4 = unit

3 - Set parameters 34 and 35 under Other parameters in the Advanced settings of CONTROL4 NRG (see page 110)



BT2 EXSTERNAL TEMPERATURE READING PROBE

PE3S0006 - Option

Enable BT2 probe:

- System setting menu (page 110)
- Parameter menu
- Setting parameter 1 = mixing module



ZONE MODULE (HEATED TOWEL)

The module operation opens and closes the valve, according to the temperature detected by the thermostat, in the cooling mode, the module closes the valve. The module can be used also to control 1 radiant circuit.

The area module must be powered at 230 Vac 50 Hz. Assembly on DIN guide

Type of cable used: $2x0.35 \text{ mm}^2$ with screen on gnd

Maximum distance: 15 m

Addressing can be done using the selectors on the RS485 module. Follow this procedure:

1 - Disconnect power supply to the RS485 module and mixing module

2 - Set the address with the selectors on the RS485 module

S5 = hundreds. Must always be set to OFF

S3 = tens

S4 = unit

example: 17= S3 =1, S4 =7

3 - Set parameters 34 and 35 under Other parameters in the Advanced settings of CONTROL4 NRG (see page 110)

For module **RS485**, see page 88



Parameters to be modified				
Parameter	Mnemonic Name	Description	Value	
33	Index	Device address	17,18	
34	Baud Rate	Baud Rate 0=4800 1 :9600 2 :19200	1	
35	Parity	Parity 0=NO / 1=Odd 2=Even supervision serial	0	

CONTROL4 NRG - SYSTEM CONFIGURATION

The configuration is performed directly on ELFOControl³ EVO introducing:

- type of system;
- name of the climatic areas (kitchen, living room, etc.);
- mixed and not mixed circuits;
- units installed (which and how many: heat pumps, terminals, etc.);
- modules installed (input/output modules, single modules, etc.);
- number of hydraulic circuits (booster pumps, area valve);
- combining components with the areas.

Modules address

- Fresh air unit : 3, 4, 5, 6 - Generic I/O modules : 7, 8

- Air Quality probes: 110 - 132

- ELFOPack : 10 - Mixing modules : 50, 51, 52 - Elements / fancoils : 17, 18, ... , 48, 49, 60, 61,... - Multiple zone modules : 11, 12, 13, 14, 15

- Energy meters: 170, 171, 172, 173 - Sinergy units: 9, 16 - HidTSmart units: 150, 151, ..., 168, 169, 190, 191, ...

Ok

- Heat pump : 2

- ELFOPack : 10

- DHW module : 1





Create / modify areas:

- new
- modify
- remove
- installation reset

Use the keyboard to type the name of the area. Key functions:



		Syster	m setting		
		Attontio	ni vou ara according th	o ovotom configuration	
		pages. A	Accessing these pages	will require a restart of the	
		device. I	Do you want to continu	e?	
		No		Yes	5
0	info				
0	Info	5	F	1	
()) ()) ())	elect		5		
S	nto select		5	ļ	
S	select		5 10:08 AM	-4/2/24	
Zones	nto select		5 10:08 AM Day	-4/2/24	
(⑦ S Zones	elect		5 10.08 AM Day	-4/2/24	
Zones 5	nio celect New		5 10.08 AM Day Night	-4/2/24	
Zones	New New		5 10.08 AM Dey Night	-4/2/24	

			10:08 AM-4/2	/24			
		New zone	creation				
		Name Zone 1	7		- 8		
				CANCEL	SAVE		
(m	Delete						
q	w	e r	t y	u	io	р	×
а	s	d f	g l	ı j	k		Done
¢	z	x c	v b	n	m !	?	¢
?123							٢

select 7

Ū

 (\mathfrak{O})

Delete

Installation reset

select 6

	10:14 AM-4/2/24	
Circuits not mixed	New zone creation	
O New	Name Zone 1	
Modify	CANCEL SAVE 8	
as	d f g h j k l 🕫	Done
↔ z x	cvbnm!?	¢
?123 ,		٢
select	8	



 Zones
 Day

 Image: New mark
 Ng/t

 Image: Modify
 Zone 1

 Image: Delete
 Image: New mark

 Image: Image: New mark
 Image: New mark

 Image: Image: Image: New mark
 Image: New mark

 Image: Image: Image: Image: Image: New mark
 Image: Image: Image: New mark

 Image: Ima

09:48-4/12/24

select 9





select 11

Circuits not mixed	Circuit not mixed 1	
New	Circuit not mixed 2	
Modify	Circuit not mixed 3	
Delete	Circuit not mixed 4	
<		12
select	12	

Define the hydraulic circuits:

- high temperature non-mixed circuits (max. 10) Circuits greater than 4 refer to the 1st high temperature area
- low temperature mixed circuits (max. 3) refer to the subsequent page

Possible combinations with boosters:

STD booster

• area 1: high temperature only

optional boosters

- 2 areas: high temperature only
- 2 areas: one high temperature + one low temperature
- 3 areas: high temperature only
- 3 areas: two high temperature + one low temperature
- 3 areas: one high temperature + two low temperature
- 4 areas: high temperature only
- 4 areas: three high temperature + one low temperature
- 4 areas: two high temperature + two low temperature
- 4 areas: one high temperature + three low temperature



Define mixed circuits:

- low temperature mixed circuits (max. 3)
- for combinations, refer to the previous page

10:18 AM-4/2/24		
Mixing modules	Mixed circuit 1	
New		
Modify		
Delete		

Define the composition of the system:

- A. heat pump type
- B. number of Elfofresh units (max. 4)
- C. number of Fancoil modules (max. 40 including other components found)
- Important: check the fancoil model to see if the direct bus connection is to the unit's board or via thermostat/HMI
 - D. number of HID-TSmart thermostats (max. 30)
 - E. number of Input/Output modules (max. 2, for MIOX
 - compatibility)F. number of single area modules (max. 40 including other components found)
 - G. number of multiple area modules (max. 5)
 - H. number of mixing modules (max. 3)
 - I. type of ESS (max.1)
 - J. number of probes
 - K. presence of domestic hot water module: none
 ACS da PDC
 AQUA / Combo On-Off
 - SWAN-2 / Combo Modbus
 - L. home Automation interface module
 - M. type of energy meter
 - N. absorbed energy 1
 - O. absorbed energy 2
 - P. producer energy meter

To see the other components, drag area "1" upwards

10:18 AM-4/2/24				
utomatic parameter settings				
Type of heat pump	Α	Not	prese	nt V
N. of Fresh air units	В	-	0	+
N. of elements / fancoil	С	-	0	+
N. of HidTSmart	D	-	0	+
I. of Input/Output modules	E	-	0	+
I. of single zone modules	F	-	0	+
· · · · · · · · · · · · · · · · · · ·			-	

I

utomatic parameter settings	
N. of multiple zone modules	G - 0 +
N. of mixing modules	H – 0 +
Type of ESS	Not present ~
N. of Air Quality probe	J – 0 +
Presence of DHW module	K None V
Domotic interface module	L
Enable Cloud IoT communication	
< 1 <	

select

14

Presence of DHW module	None ~
Domotic interface module	
Enable Cloud IoT communication	
Energy meter type	Single phase $$
Air conditioning energy meter	M
Energy meter of total consumption	N
Photovoltaic energy meter	0
Car charging energy meter	P
<	15 →



Multiple zone module

For each module available, define the type of controlled component for each channel:

- single step radiant panel (Temperature + Humidity)
- single step radiant panel (Temperature only)
- double step radiant panel (Temperature + Humidity)
- triple step radiant panel(Temperature + Humidity)
- radiator
- fan coil with electro-mechanical thermostat
- radiator with electro-mechanical thermostat
- radiant panel with electro-mechanical thermostat
- not used

Generic I/O (see page 95)

Reference terminal (Master) pag. 101

Use mode

- HeatCool
- Cool only
- Heat only
- Belonging area:

• kitchen, living room, etc.

- Type of circuit assigned:
 - mixed

non-mixed

Number of circuit:

- mixed circuit n.1 / 2 / 3
- non-mixed circuit n.1 / 2 / 3

Thermostats connected:

Clivet Bus	See ELFO Control3 EVO installation manual		
	Sensor thermostat+ humidity	Ambient probe (HID-UR)	
Modbus	Thermostat only (temperature only)	See ELFO Control ³ EVO in- stallation manual	
	Sensor only (temperature+humidity		
Modbus Touch	See ELFO Control ³ EVO installation manual		

To modify the name, select **B**.





GENERIC INPUT/OUTPUT MODES PROVIDED BY THE MULTIPLE RADIANT AREA MODULE

Select I/O from Controlled element

Define the inputs and outputs of multiple radiant area module canals:

- Remote consent remotely activates the CONTROL4 NRG system;
- Boiler alarm acquires the backup heater's alarm.

Configure the outputs to control the following functions:

- **Circulator activation**: activates when there is a request for the water circuit associated with the circulator;
- **Zone valve control**: activates when there is a request for the water circuit associated with the zone valve;
- Seasonal management: with the system in heating mode it closes the contact, when it is in cooling mode it opens it. If the system includes a Chiller combined with a boiler, it can be used to control the shut-off valves of the water circuit;
- Heating resource activation: activates when the system is in heating mode and one of the areas needs to be activated. If only the boiler is to be used and not combined with a heat pump.
- Delayed heating resource activation: activates with a delay time (set in the parameter) when the system is in heating mode and one of the areas needs to be activated. If only the boiler is to be used and not combined with a heat pump.
- Pump on secondary: activates according to the actual energy request from a specific area
- **Dehumidifier**: activates up to 4 auxiliary dehumidifiers with ON/OFF input contact for remote consent.
- ElfoFresh post-heating heater in dehumidification: activates the use of a post-heating heater for Elfo Fresh units in dehumidification
- Cooling resource activation: if the boiler is used in combination with a unit to produce cooling energy only, the module will also switch circuits according to the system's heating or cooling operating mode.
 - normally open contacts on stand-by to chiller.
 - powered contacts to boiler.
- Delayed cooling resource activation: the same as the previous mode with the introduction of a delay time that can be set in parameter.
- Photovoltaics

In compliance with the thresholds in parameter 67 and 68

Coil

In compliance with the thresholds in parameter 70 and 71



GENERIC INPUT/OUTPUT MODES PROVIDED BY THE MULTIPLE RADIANT AREA MODULE

Remote On / off from telephone dial

Configure parameter 49. Use remote consent in the Advanced settings

Par.49	Configuration	CLOSE	OPEN	Note
0		Not used		
1	System (NC)	System OFF DHW OFF System ON-OFF from CONTROL4 NRG keypad disabled	System ON DHW ON System ON-OFF from CONTROL4 NRG key- pad	At CLOSED contact it switches off the whole system including DHW
2	Air-conditioning only (NC)	System OFF DHW ON (ONLY DHW) System ON-OFF from CONTROL4 NRG keypad	System ON DHW ON (NORMAL CONF.) System ON-OFF from CONTROL4 NRG key- pad	At CLOSED contact is switches off only the air-conditioning system, leaving the DHW pro- duction active.
3	System (NA)	System ON DHW ON System ON-OFF from CONTROL4 NRG keypad	System OFF DHW OFF System ON-OFF from CONTROL4 NRG keypad disabled	At OPEN contact it switches off the whole system including DHW
4	Air-conditioning only (NA)	System ON DHW ON (NORMAL CONF.) System ON-OFF from CONTROL4 NRG keypad	System OFF DHW ON (ONLY DHW) System ON-OFF from CONTROL4 NRG key- pad	At OPEN contact is switches off only the air-conditioning system, leaving the DHW production active.

Zone elements

They are listed:

- A. Element 1 to be defined: Single zone modules
- Terminals (fan coils)
- B. Smart thermostats

A - Single radiant zone modules

For each single zone module available, define the type of controlled component for each channel:

- Fan coil
- Radiator
- Radiant panel

Local control (keypad/thermostat)

Belonging area:

• kitchen, living room, etc.

Type of circuit assigned:

- mixed
- non-mixed

Number of circuit:

- mixed circuit n.1 / 2 / 3
- non-mixed circuit n.1 / 2 / 3

Terminal of reference (master)

Use mode

- HeatCoolCool only
- Cool only
- Heat only

To modify the name, select **D**.

Zone terminals (fan coils)

Define the belonging area for each component available in the system. (radiator/fan coil)

Local control (from keyboard or thermostat)

Belonging area:

- kitchen, living room, etc.
- Type of circuit assigned:
 - mixed
 - non-mixed
 - mixed circuit n.1 / 2 / 3
 - non-mixed circuit n.1 / 2 / 3

Terminal of reference (master)

To modify the name, select **D**.

Zone elements	Controlled element	Elfo Room 2 ∨
ELEMENT 1	Local control (keypad/thermostat)	C
	Zone of belonging	Day \sim
HIDTSMART 1	Type of circuit	Not mixed ~
	Circuit	Circuit not mixed 1 v
	Reference terminal (Master)	C
	Name	Fancoil 1
<		

select A

Zone elei	ments	Controlled element	Elfo Room 2
	ELEMENT 1	Local control (keypad/thermostat)	C
		Zone of belonging	Day
	HIDTSMART 1	Type of circuit	Not mixed
		Circuit	Circuit not mixed 1
		Reference terminal (Master)	C
		Name C	Fancoil 1
<			

B - Smart Thermostats

Set the following parameters for each Smart thermostat in the system:

Belonging area:

kitchen, living room, etc.

Type of circuit assigned:

- mixed
- non-mixed
- mixed circuit n.1 / 2 / 3
- non-mixed circuit n.1 / 2 / 3

Enable energy display

Select to enable the energy context display on the thermostat

Energy display mode

Select which information to display on the energy context page:

- Photovoltaics and coil
- Coil
- Photovoltaics

Enable air quality display

Select to enable the air quality context display

Air quality display mode

Select which information to display on the energy context page:

- Air quality probe
- ElfoFresh

Enable system display

Select to enable the system context display, showing the most relevant system information

To modify the name, select **D**.

Select the type of Elfofresh installed:

- Elfofresh
- Elfofresh²
- Zephir 3
- ELFOPack
- ElfoFreshEvo
- A Combine each used unit to every area.

Select:

- mix module controlled by the thermostat
- assign the area where it is installed
- name of the thermostat

Select:

- name of the air quality sensor
- assign the area where it is installed

Automatic parameter settings

Select **YES** = the auto-configuration of all elements in the installation starts (loading of the STD system settings)

Select NO = to maintain any Custom settings on the unit / devices (reserved only to qualified/specialised personnel) The auto-configuration may take a few minutes.

It is also possible to enable the auto-configuration also later (parameter 50 access reserved to installer / ATC)

ATTENTION

The access to parameters or modifications are allowed only to the installer who assumes all responsibility, in case of doubts please contact Clivet.

For any changes not permitted or not approved by Clivet, the same declines any responsibility for malfunctions and/or damages to the unit/system.

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Master terminal

Combining the terminal of reference with the master terminal in the configuration

Component 1 :

DAY area, thermostat YES, terminal of reference NONE Component 2 :

DAY area, thermostat YES, terminal of reference 1

Component 3 :

DAY area, thermostat YES, terminal of reference 1 Component 4 :

NIGHT area, thermostat YES, terminal of reference NONE Component 5:

DAY area, thermostat NO, terminal of reference 4

Electricity meter

Address allocation:

- 170 Energy meter 1 (absorbed)
- 171 Energy meter 2 (absorbed)
- 172 Energy meter 3 (Production)

The meter is preconfigured with address 170

Meter address setting:

- 1. Power up and connect the meter to the CONTROL4 NRG serial line
- Go to the "Other parameters" page of CONTROL4 NRG (See screenshots opposite)
- 3. Set Device address field = 170
- 4. Set Parameter address field = 2
- 5. Set Enter value field = New Modbus ID (171 or 172)
- 6. Press the "Write" button
- 7. Set Parameter address field:
 - Single-phase model = 251
 - Three-phase model = 243
- 8. Set Enter value field = 49600
- 9. Press the "Write" button
- 10. Switch the meter off and on again and check for correct addressing

Verification of address change:

- 1. From the "Other parameters" screen of CONTROL4 NRG:
- 2. Set **Device address** field with the new Modbus address (171 or 172 depending on what has been set)
- 3. Set Parameter address field = 2
- 4. Press the "Read" button and check that the device responds.

NOTE:

if it is necessary to address more than one meter, only connect one meter at a time to the serial line to carry out the addressing procedure.

AUTOCONFIGURATION

Check of the auto-configuration procedure end.

To see the other areas, drag area "1" upwards

AUTOCONFIGURATION

Autoconfiguration completed

For make the autoconfiguration changes effective, turn off and on the power TO MODULES.

<	11:10 AM-4/2	2/24
Installation composition	Heat pump :	No module present
Setting	Fresh air unit :	°°×0 °°×0 °°×0 °°×0
-0	Generic I/O modules :	No module present
Autoconfiguration completed.	Mixing modules :	
	Elements / fancoils :	≈8
	HidTSmart units:	
	Multiple zone modules :	0 0 0 0 0 0
	DHW module :	No module present
	Air Quality probes:	

If you do not see "Autoconfiguration completed":

- 1. check the element is in ON
- 2. check the network

<	11:16 AM-4/2	/24					
Installation composition	Heat pump :	No module pre	esent				
Setting	Fresh air unit :	°°×∎ °°;	×@ d	° X©	° ×0		
	Generic I/O modules :	No module pre	esent				
	Mixing modules :						
	Elements / fancoils :	≈≈ <mark>9</mark>					
	HidTSmart units:						
	Multiple zone modules :	• · · · · • • • • • • • • • • • • • • •	0	0	0	6	6
	DHW module :	No module pre	esent				
	Air Quality probes:						
⑦ Info							

VERIFICATION OF THE COMPONENT COMMUNICATION

Once the system is restarted and the new configuration loaded, verify the serial communication.

For a correct verification, wait 5/10 minutes from the first restart, this period can vary depending on the composition of the system.

- D module channel: 3

The unit does not communicate with CONTROL4 NRG, an alarm is notified "communication with interrupted device".

ZONE ELEMENTS STATUS

Check of the installed radiant / fancoil / zone modules operation status,Smart thermostats installed.

For reference only:

- A. Status on / off
- B. Heating/cooling
- C. Ambient setpoint °C
- D. Current mode
- E. Remote control
- F. Setting
- G. Air temperature °C
- H. Zone
- I. Ambient humidity %
- J. Water temperature °C
- K. Dew temperature °C

To see all the components, drag area "1" to the left.

STATUS OF THE MIXERS

Verification of the operation status of the installed mixing circulators.

For reference only:

- A. Circulator status on / off
- B. Heating/cooling
- C. Supply water setpoint °C
- D. Supply water temperature °C
- E. Temperature BT2
- F. Air temperature °C
- G. Ambient humidity %
- H. Valve opening %
- I. Dew temperature °C
- J. Configuration

To see all the components, drag area "1" to the left.

ENERGY MEASURING DEVICES

Check the measured values of the electric energy measuring devices in consultation only. The parameters displayed vary according to single -phase or three-phase models.

You can insert the contact references.

Access to the $\ensuremath{\text{parameters}}$ is reserved only to $\ensuremath{\text{After Sales Centre.}}$

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ERROR: RS485 NETWORK

TROUBLESHOOTING

- 1. All the units requested do not respond.
- Verify no short-circuits occurred on the RS485 serial line
- Ensure that the power supply is available.
- 2. Some units requested do not respond.
- Ensure they are switched on
- Ensure that the address, baud-rate and parity are correct
- Ensure that they are connected to the bus correctly
- Referring to the electrical diagram, verify if the TTL/485 converter on the fan coil is connected correctly or it has been introduced erroneously on the card programming TTL
- Try to replace the converter installed

- 3. From a certain point on, the units do not communicate
- It is likely that the bus of the first unit does not communicate due to a shortcircuit
- It is likely that the unit that precedes physically the first unit that does not communicate have inverse bus polarity
- It is likely that the line section that powers these units is interrupted accidentally or is not connected.



PARAMETERS ACCESS / VISUALIZATION

ATTENTION

The access to parameters or modifications are allowed only to the installer who assumes all responsibility, in case of doubts please contact Clivet S.p.A.

For any changes not permitted or not approved by Clivet S.p.A., the same declines any responsibility for malfunctions and/or damages to the unit/system.

The operations listed below are required only for particular calibrations and configurations, they are therefore addressed only to qualified authorized assistance centres.

3 - Other parameters

Parameter access (read/write Modbus commands)





PARAMETERS ACCESS / VISUALIZATION

Key functions:

×

Delete

Device address field= Enter the device's Modbus address

Example: for multiple area module 11

Parameter address field: enter the value of the Modbus register to be read or written

Example:

10011 - Value in the Modbus mapping of the multiple area module

Modbus Function field: select the function code to be used for the reading/writing operation of the parameter to be checked:

Writing only (fc 06)

Reading and writing (fc 03 / fc 16)

Reading only (fc 04)

< 合	11:54 AM-	-4/2/24		
Other parameters				
Device address		5		
Parameter address (the parameter number should not be in	creased by 1)			
Funzione modbus			Lettura e scr	ittura (fc 03/fc 16) 🗸
Value to write				Write
Read value				Read
solart	5			
001001	Ū	ţ		
<	11:54 AM-	-4/2/24		
Other parameters				
Device address		11		
Parameter address (the parameter number should not be in	creased by 1)			
Funzione modbus			Lettura e sci	ittura (fc 03/fc 16) 🗸
Value to write				Write
- +	. 1	2	3	×
* /	. 4	5	6	Next 6
		•	0	
()	= /	8	9	
	*	0	#	
select	6	Ļ		
select < ☆	6 11:54 AM	-4/2/24		
Select	6 11:54 AM-	-4/2/24		
select < ক্রি Other parameters Device address	6 11:54 AM-	11		
Select Character Characters Device address Parameter address (the parameter number should not be is	6 11:54 AM-	-4/2/24 11 1011		
Select Comparent	6 11:54 AM-	11 1011	Lettura e sci	ittura (fc 03//c 16) ∨
Select Characteris Contemporare terms Device address Parameter address (the parameter number should not be in Funzione modbus Value to write	6 11:54 AM-	-4/2/24 11 1011	Lettura e sci	ittura (fc 03/fc 16) ≻ Write
Select	6 11:54 AM-	-4/2/24 11 1011 2	Lettura e sci	ittura (fc 03/fc 16) ∨ Write
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Select	6 11:54 AM- creased by 1) 1 1 7 11:54 AM- 1 1 1 1 1 1 1 1 1 1 1 1 1	-4/2/24 11 1011 2 5 8 0 4/2/24	Lettura e sco 3 6 9 #	ittura (fc 03/fc 16) ~ Write X3 Next 7
Select Characterization Char	6 11:54 AM creased by 1) 1 1 1 1 1 1 1 1 1 1 1 1 1	-4/2/24 11 1011 2 5 8 0 4/2/2A 4/2/2A	Lettura e sco 3 6 9 #	ritura (fc 03/fc 16) ~ Write •21 Next 7
Select Character address Parameter address Parameter address Value to write Character address Select Character address Parameter addres Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Parameter Par	6 11:54 AM creased by 1) 1 1 1 1 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 4 5 1 5 5 5 5 5 5 5 5 5 5 5 5 5	-4/2/24 11 1011 2 5 8 0 4/2/24 4/2/24	Lettura e sci 3 6 9 #	ittura (fc 03/fc 16) V Write Noxt 7
Select Current of the select	6 11:54 AM- creased by 1) 1 1 1 1 1 1 1 1 1 1 1 1 1	-4/2/24 11 1011 2 5 8 0 4/2/24 4/2/24	Lettura e sco 3 6 9 #	ittura (fc 03/fc 16) ~ vvitte < Next 7 ittura (fc 03/fc 16) ~
Select Cherparameters Device address Select Cherparameter rumber about not be in Funzione modbus Value to write Select Cherparameters Device address Parameters Device address Parameters Parameters Pa	6 11:54 AM- creased by 1) 1 1 1 1 4 7 1 5 1 1 5 4 1 1 5 1 1 5 4 1 5 1 1 5 1 5 1 5 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1	-4/2/24 11 1011 2 5 8 0 4/2/24 (0 (0 (0 (0 (0 (0 (0 (0 (0 (0	Lettura e sco 3 6 9 #	ittura (fc 03/fc 16) ~ Write • • • • • • • • • • • • • • • • • • •
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Select Current of the select	6 11:54 AM- creased by 1) 1 1 1 1 1 1 1 1 1 1 1 1 1	↓ -4/2/24 11 1011 2 5 8 0 ↓ 4/2/24	Lettura e sco 3 6 9 #	ittura (fc 03/fc 16) ~ Witte A Next 7 Ittura (fc 03/fc 16) ~ Witter Resd
Select Cherparameters Device address Cherparameter rumber aboud not be in Funzione modbus Select Cherparameter s Parameter address Cherparameters Device address Cherparameters Che	6 11:54 AM creased by 1) 1 1 1 1 1 1 1 1 1 1 1 1 1	-4/2/24 11 1011 2 5 8 0 4/2/2A 4/2/2A ((((((((((((((Lettura e sci 3 6 9 #	ittura (fc 03/fc 16) ∨ Write ≪1 Next 7 Next 7
Select	6 11:54 AM creased by 1)	↓ -4/2/24 11 1011 2 5 8 0 ↓ 4/2/24 :16) 8	Lettura e sci 3 6 9 #	itura (fc 03/fc 16) Wite Next 7 Itura (fc 03/fc 16) Read



PARAMETERS ACCESS / VISUALIZATION

In the $\ensuremath{\textbf{Enter value}}$ field: enter the value to be written for the parameter indicated

Write button = writes the value

Read button = displays the default value

In case of register reading, press end without entering the value.

In case of register writing, enter the value to be written. Attention writing with decimals (ex. 10,5) the value to be written has to be considered without comma (ex. 105)

In case of negative values (16-bit) the value has to be written in two's complement, obtained as follows: 65536 minus the negative number without comma

Example, write -5.5 °C and transform it in the following way: 65536 - 55 = 65481 The negative number -5.5 corresponds to 65481 that must be written.

Other parameters			
Device address		11	
Parameter address (the parameter number should not be increased by 1)		1011	
Funzione modbus		Lettura e scrittura	a (fc 03/fc 16) 🗸
Value to write			Write
Read value			Read
	Error. Device not connected.		



PARAMETERS OF THE COMPONENTS

Below, we describe the parameters that **are set by the autoconfiguration** on the several components of the system; the list must be considered indicative and is an operative trace to be assessed, depending on the type and system configuration.

GAIA (ver	GAIA (version AB and AC) - Anti-dew compensation enabling (only in cooling)						
Modbus	Modbus Parameter Value Description						
	27	1	Anti-dew compensation enabling circuit 1 ; 0 = deactivate				
	892	1	Anti-dew compensation enabling circuit 2 ; 0 = deactivate				
	901	1	Anti-dew compensation enabling circuit 3 ; 0 = deactivate				

Enablement of DHW on Elfo Energy					
Modbus	Parameter	Value	Description		
43686	50	2	Enablement of DHW production		
43739	110		Introduce the excursion time of the valve		
43576	119	1	DHW in heat and cool mode ; 2= if Wban		
43569	140	1	Enablement of the plug-in card		
-	Enableme Modbus 43686 43739 43576 43569	Enablement of DHW on E Modbus Parameter 43686 50 43739 110 43576 119 43569 140	Enablement of DHW on Elfo Energy Modbus Parameter Value 43686 50 2 43739 110 1 43576 119 1 43569 140 1		

ELFOEnergy SMALL						
Modbus	Parameter	Value	Description			
43627	163	1	Select the supervision mode			

ELFOFresh ² CPAN-U 70-650						
Modbus	Parameter	Value	Description			
1129	130	2	Enablement of the modbus ambient probe (always set to 2)			
1160	161	0	Select the supervision mode			
1137	138	2	Enablement of UR% ambient probe from Elfocontrol ³ EVO			

ELFOFresh CPAN-U 17-51					
Modbus	Parameter	Value	Description		
43639	130	2	Enablement of modbus ambient probe		
43647	138	2	Enablement of UR% ambient probe from Elfocontrol ³ EVO		
	161	0	Select the supervision mode		

Mixing module					
Modbus	Parameter	Value	Description		
1077	78		Enables compensation for dew in cooling mode. 0 = deactivate, 1 = activate		
1084	85	90 sec.	Time required to position VRad from closed to fully open		
1085	86	400 num	Allows weighing the opening time of the valve,increase only if the mixing valve oscillates a lot (typical of two-way valves)		



SYSTEM INTERFACE (DOMOTICS)

If the device DOMOX is present during the system configuration (p. 93) to the "Installation composition" screen, activate the "Interface module with domotics"

System architecture

The connection between CONTROL4 NRG and the home automation system is done using a device called "DOMOX - Home Automation interface module".

The home automation system must implement a modbus communication TCP/IP over ethernet connection

The reading/writing registers are NOT retentive, i.e. a possible lack of the Sten module power supply implies the loss of values written by the system. The settings determined by the external system modify the local ones of CONTROL4 NRG; it means that in the case of an external system disconnection, CONTROL4 NRG will maintain the last values set.

The only settings not stored are: zone Scenario , DHW Profile

They are In fact interpreted as forcing coming from an external scheduler with respect to scheduling set on CONTROL4 NRG .

As long as it is connected, the only one settings that the external system requires to be modified can not be changed locally acting on CONTROL4 NRG.

Communication mode

Deafult parameters Modbus TCP/IP side connection:

Address IP: 10.0.0.141 Doors TCP: 23

Modbus address: 190

By connecting to the address http://10.0.0.141:8680 You can change these settings (password required). Caution: changing settings RTU side will cause the lack of communication between CONTROL4 NRG and the DOMX module. The DHCP client is not active, do not enable it.

Currently Sten only accepts commands modbus 03 in reading and 16 in writing.

DOMX only accepts Modbus 03 read and 16 write commands.



GREEN ICON Connected domotics





Connected domotics, but not in communication (Disabled)

CONFIGURATION (parameters 51-52)

Prolonged pressure "1"





3:17 PM-2/26/24 Drag area "1" upwards. Advanced settings 1.Outside temperature reading Heat pump 2.Interval for sending the heat pump setpoint and 1 4. Assistance center contacts 5.Force screen switching on in presence of alarms ~ dic of functional sanitary recirculation activatio 19.Pe 3 min + 19. Periodic of functional sanitary recirculation deactiv 22.Resources used in heating All Ch Other parameters A - Enable parameter 51. Connection type None 11:55 AM-4/2/24 3 Domotic /BMS Advanced settings B - Set the communication timeout (par.52) 49.Use of remote enable signa 0 minutes = system disabled 50.Device parameter auto-configuration \sim > 0 minutes = it is the communication check time with the Α 51.Connection type None home automation system. 52.Enable/Timeout domotic [0=disabled, >0 = connection timeout (minutes)] в 3 min After this time (which starts from the last valid response 55.Setpoint-H2O temperature Delta to anticipate the zone switching or received by the home automation system) without having r 0.0 min eceived a reply from the home automation system, 56.Max. advance for the zone switching on 30 min CONTROL4 NRG reports a lack of communication. 57.Primary circuit advance time 0 min C - Save parametres С ch Other parameters select 3

Log list

Heart bit for communication timeout handling

The register address 0 is used by CONTROL4 NRG to determine if the external system is properly connected. The system will have to write at least every minute, a value other than 0. CONTROL4 NRG, once read a value other than 0, consider the system connected and will use the data read on Sten in those "local" to thermoregulate system.

Just read the value, CONTROL4 NRG puts it back to 0, and if within a minute the system not puts it to a value different from 0, CONTROL4 NRG one considers disconnected and back to work in stand-alone mode, using its own local settings.

Command registers

CONTROL4 NRG performs a consistency check on the data read; If a register is 0, the command is considered invalid, and the setting is the locale domain. The temperature values, where not explicitly stated, are to be considered in tenths of a degree(°C/10): 213 means 21.3°C.

1 - System

1.1 Commands

Address	Description	Notes
1	Plant status	1 = off, 2 = on
2	Plant mode	1 = cooling, 2 = heating
3	Heat pump mode	1 = PDC disabled, 2 = only domestic hot water (DHW), 3 = auto mode
4	DHW mode	1 = DHW disabled, 2 = solar only , 3 = auxiliary heater only, 4 = auto mode
5	Away function	1 = away, 2 = At home
6	Alarm reset	1 = heat pump alarm reset, 2 = Fresh alarm reset 1, 3 = Fresh alarm reset 2 , 4 = Fresh alarm reset 3, 5 = Fresh alarm reset 4
7	Cooling Setpoint Heat pump	It is referred to the fixed setpoint of the unmixed circuit
8	Heating Setpoint Heat pump	It is referred to the fixed setpoint of the unmixed circuit

Address	Description	Notes
140	System status	1 = off, 2 = on
141	System mode	1 = cooling, 2 = heating
142	Heat pump status	0 = off (or standby), 1 = system, 2 = DHW
143	Outdoor temperature	
144	Heat pump alarm	0 = not alarm, 1 = alarm
145	Heat pump supply temperature	
146	Compressor heat pump power	0100% ((in tenths of %)
147	Heat pump working Setpoint	

2 - Zone

2.1 Commands

For each zone you can set the commands listed in the table below. There are 7 records for each zone

Zone	1	2	3	4	5	6	7	8	9	10	11	12
Offset	10	17	24	31	38	45	52	59	66	73	80	87

Address (es. zone 1)	Description	Notes	Limits
Offset zone + 0 (10 + 0 = 10)	Winter comfort Setpoint zone		8.0°C35.0°C
Offset zone + 1 (10 + 1 = 11)	Summer comfort setpoint zone		8.0°C35.0°C
Offset zone + 2 (10 + 2 = 12)	Delta winter setpoint eco zone	Positive value. In Eco mode will be subtracted from the comfort Setpoint	0.1°C15.0°C
Offset zone + 3 (10 + 3 = 13)	Delta summer setpoint eco zone	Positive value. In Eco mode will be added to the comfort Setpoint	0.1°C15.0°C
Offset zone + 4 (10 + 4 = 14)	Zone mode	1 = zone off, 2 = zone Eco, 3 = zone comfort	
Offset zone + 5 (10 + 5 = 15)	Winter humidity Setpoint zone		10%90%
Offset zone + 6 (10 + 6 = 16)	Summer humidity Setpoint zone		10%90%

Note: If mode zone = 0, The zone will follow the local programming set to CONTROL4 NRG (Or any area mode manual forcing)

2.2 Status

For each zone you can read the data listed in the table below. There are 4 records for each zone

Zone	1	2	3	4	5	6	7	8	9	10	11	12
Offset	150	154	158	162	166	170	174	178	182	186	190	194

Address (es. zone 1)	Description	Notes
Offset zone + 0 (150 + 0 = 150)	Average temperature zone	
Offset zone + 1 (150 + 1 = 151)	Average umidity zone	
Offset zone + 2 (150 + 2 = 152)	Profile zone	1 = zone off, 2 = zone on eco mode, 3 = zone on comfort mode
Offset zone + 3 (150 + 3 = 153)	Setpoint zone	



3 - Domestic Hot Water (DHW)

3.1 Commands

Address	Description	Notes	Limits
110	Setpoint reload DHW		25°C55°C
111	Setpoint maintenance DHW		25°C55°C
112	DHW profile	1 = Maintenance + recirculation, 2 = Maintenance, 3 = recirculation+ recharge, 4 = recharge	

3.2 Stata

Address	Description	Notes
200	DHW temperature	
201	DHW second temperature	
202	DHW profile	1 = Maintenance + recirculation, 2 = Maintenance, 3 = recirculation+ recharge, 4 = recharge
203	Solar temperature	
204	Solar status	0 = disable, 1 = active
205	DHW pump/ Recirculation	0 = disable, 1 = active
206	Heating element/DHW boiler	0 = disable, 1 = active
207	Antilegionella	0 = not in progress, 1 = in progress

4 - ElfoFresh

4.1 Commands

For each ElfoFresh (EF) you can set the commands listed in the table below. There are zone 5 records for each ElfoFresh

ElfoFresh	1	2	3	4
Offset	115	120	125	130

Address (es. zone 1)	Description	Notes	Limits
Offset EF+ 0 (115 + 0 = 115)	Winter Setpoint room temperature		18.0°C26.0°C
Offset EF+ 0 (115 + 1 = 116)	Summer Setpoint room temperature		22.0°C28.0°C
Offset EF+ 0 (115 + 2 = 117)	Winter room humidity Setpoint		5%80%
Offset EF+ 0 (115 + 3 = 118)	Summer room humidity Setpoint		45%100%
Offset EF+ 0 (115 + 4 = 119)	Functionnning mode	1 = EF disabled, 2 = EF fan mode only, 3 = auto mode	

4.2 Stata

For each ElfoFresh (EF) you can read the data listed in the table below. There are 9 records for each ElfoFresh

ElfoFresh	1	2	3	4
Offset	210	219	228	237

Address (es. zone 1)	Description	Notes
Offset EF+ 0 (210 + 0 = 210)	Room supply temperature	
Offset EF+ 0 (210 + 1 = 211)	Room return temperature	
Offset EF+ 0 (210 + 2 = 212)	Room air humidity	
Offset EF+ 0 (210 + 3 = 213)	Outdoor air temperature	
Offset EF+ 0 (210 + 4 = 214)	Ambient air setpoint	
Offset EF+ 0 (210 + 5 = 215)	Status	0 = off, 1 = on
Offset EF+ 0 (210 + 6 = 216)	Compressor	0 = off, 1 = on
Offset EF+ 0 (210 + 7 = 217)	Dehumidify	0 = not in progress, 1 = In progress
Offset EF+ 0 (210 + 8 = 218)	Alarm	0 = not on alarm, 1 = alarm



DISPOSAL

Disconeting

Only authorised personnel must disconnect the unit. Avoid leak or spills into the environment. Before disconnecting the unit, the following must be recovered, if

present:refrigerant gas

anti-freeze solutions in the water circuit

Awaiting dismantling and disposal, the unit can also be stored outdoors, if the electrical, cooling and water circuits of the unit have 100% integrity and are isolated, bad weather and rapid change in temperature will not result in any environmental impact.

Dismalting and disposal

The unit must always be sent to authorised centres for dismantling and disposal.

When dismantling the unit, the fan, the motor and the coil, if operating, may be recovered by the specialist centres for reuse. All the materials must be recovered or disposed of in compliance with the corresponding national standards in force.

For further information on the decommissioning of the unit, contact the manufacturer.

Directive EC RAEE

The manufacturer is registered on the EEE National Register, in compliance with implementation of Directive 2012/19/EU and relevant national regulations on waste electrical and electronic equipment.

This Directive requires electrical and electronic equipment to be disposed of properly.

Equipment bearing the crossed-out wheelie bin mark must be disposed of separately at the end of its life cycle to prevent damage to human health and to the environment.

Electrical and electronic equipment must be disposed of together with all of its parts.

To dispose of "household" electrical and electronic equipment, the manufacturer recommends you contact an authorised dealer or an authorised ecological area.

"Professional" electrical and electronic equipment must be disposed of by authorised personnel through established waste disposal authorities around the country.

In this regard, here is the definition of household WEEE and professional WEEE:

WEEE from private households: WEEE originating from private households and WEEE which comes from commercial, industrial, institutional and other sources which, because of its nature and quantity, is similar to that from private households. Subject to the nature and quantity, where the waste from EEE was likely to have been by both a private household and users of other than private households, it will be classed as private household WEEE;

Professional WEEE: all WEEE which comes from users other than private households.

This equipment may contain:

refrigerant gas, the entire contents of which must be recovered in suitable containers by specialised personnel with the necessary qualifications;

 lubrication oil contained in compressors and in the cooling circuit to be collected;

• mixtures with antifreeze in the water circuit, the contents of which are to be collected;

• mechanical and electrical parts to be separated and disposed of as authorised.

When machine components to be replaced for maintenance purposes are removed or when the entire unit reaches the end of its life and needs to be removed from the installation, waste should be



separated by its nature and disposed of by authorised personnel at existing collection centres.



NOTEO		
NOTES		

FOR OVER 30 YEARS, WE HAVE BEEN OFFERING SOLUTIONS TO ENSURE SUSTAINABLE COMFORT AND THE WELL-BEING OF PEOPLE AND THE ENVIRONMENT



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CLIVET S.p.A. Via Camp Lonc 25, Z.I. Villapaiera 32032 Feltre (BL) - Italy Tel. +39 0439 3131 - Fax +39 0439 313300

info@clivet.it

