

# VISION TOUCH PAN



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User and maintenance manual

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ENGLISH

**READ AND KEEP**

Rel. Software: VT\_PAN\_2\_0\_2\_5

Thank you for choosing PEGO'S VISION TOUCH PAN controller.

Reading this manual thoroughly will guide you through proper installation and better use of the various features. We therefore recommend keeping this manual near the controller to make use of it during the device installation, configuration and use.

### **Waste disposal guidelines:**

The Vision Touch controller consists of glass parts, plastic parts and metal parts. With reference to the Directive 2012/19/UE of the European Parliament and of the Council of 4 July 2012 and related national legislation, please note that:

- A. There is the obligation not to dispose of WEEE as urban waste and to perform separate collection of this waste.
- B. Public or private waste collection facilities foreseen by local laws must be used to dispose of the materials. It is also possible to give the device back to the distributor at the end of its life when purchasing a new one.
- C. This equipment can contain dangerous substances: improper use or incorrect waste disposal could have negative effects on human health and on the environment.



- D. The symbol  (crossed-out waste bin on wheels) applied to the pack, product and instructions indicates that the appliance was placed on the market after August 13, 2005 and must be disposed of separately.
- E. In case of abusive disposal of electrical and electronic waste, there are sanctions established by local standards in force concerning waste disposal.

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# CHAPTER 1: INTRODUCTION

## GENERAL INFORMATION

1.1

### DESCRIPTION:

**VISION TOUCH PAN** enables advanced control of retarding cold rooms, cabinets or counters with temperature and humidity control.

The system consists of the 100N MASTER3 unit, on which all the electrical connections are made, and the VISION TOUCH PAN control console, equipped with 7" TFT display with capacitive touch screen combined with a highly advanced software and a highly user-friendly interface that allows easy use.

### APPLICATIONS:

- Retarding cabinets, counters and cold rooms for industrial and in-store bakeries and confectioneries.
- Replacing other retarding controls on existing systems.

### TECHNICAL SPECIFICATIONS FOR RETARDING:

- Hot manual mode (leavening).
- Cold manual mode (accumulation).
- Manages automatic retarding programs that can be customised, consisting of a maximum of 9 steps that can be set (2 accumulation phases, 3 preservation phases, 3 leavening phases and 1 resting phase); the following is possible for each phase:
  - Enable its operation (with the exception of Preservation phase 3 that is always present);
  - Set the functions enabled in the phase (Cold❄️, Hot🔥, Humidify💧 and Dehumidify❄️);
  - Phase duration, Temperature setpoint and Humidity setpoint;
  - Select the evaporator fan speed and continuous fan forcing;
  - Switch to enable temperature threshold management, below which humidity control is inhibited;
  - Switch to enable defrosting for the accumulation and preservation phases. (At the beginning of the leavening phase, a defrosting phase is launched, if enabled, and this is then inhibited during the leavening and resting phases);
  - Switch to enable the gradual increase to reach the Temperature setpoint (only for the leavening phases).
- Possibility of enabling a warning for the end of program and oven advance ignition command.
- Store up to 12 programs in the internal memory with the option of exporting them to a USB or microSD.
- Diagram of the program in execution with progress display (completed phases, phases in progress and phases yet to be executed) and a representation of the set values and of all the remaining times.
- Temperature adjustment range: -45°C/+99°C; humidity adjustment range: 0-100 R.H.%.

### GENERAL CHARACTERISTICS OF THE CONTROLLER:

- 7" TFT display with high resolution (800x480 WVGA), LED backlighting and capacitive touch screen.
- Front with 1,1 mm chemically treated glass.
- Ability to reverse the viewing angle of the display to ensure the possibility of mounting at any height.
- Devices: USB 2.0, microSD, RS485.
- Acoustic signals.
- IP65 frontal protection.
- High quality design and icons.
- Touch screen interface with gestures, for an even more intuitive control.
- Clock and calendar (RTC).
- Password function.
- Multilingual.
- Customizable user parameter menu (unused features can be hidden, simplifying the menu).
- Contextual help in the parameter configuration menu.
- Software updating from microSD or USB.
- Ability to export and import parameters on USB or microSD media.
- Alarm history combined with popup warning messages.
- Advanced HACCP function with detailed memory of temperature / humidity alarms triggered.
- "Test center" mode to check, in a simple and intuitive way, all the digital and analogical inputs/outputs.
- RS485 serial connection with TeleNET or Modbus protocol which can be selected in the parameters.
- Web server: control the Vision Touch from web browsers (controlled access).
- Proportional humidifier control with 0-10V analogue output.
- Automatic sending of e-mail in case of alarm.
- Modular valves hot/cold water management
- °C or °F Temperature management
- Automatic daylight time switch

## 1.2

### PRODUCT IDENTIFICATION CODES

## 200VT100PAN1



- TOUCH electronic control dedicated for retarder provers. It features an elegant 7" TFT display with capacitive touch screen combined with highly advanced software and an extremely intuitive user interface that allows easy use.
- 5m telephone cable included.
- 2 NTC probes (1x1.5 m + 1x3 m) included.
- Humidity probe sold separately.

OVERALL DIMENSIONS

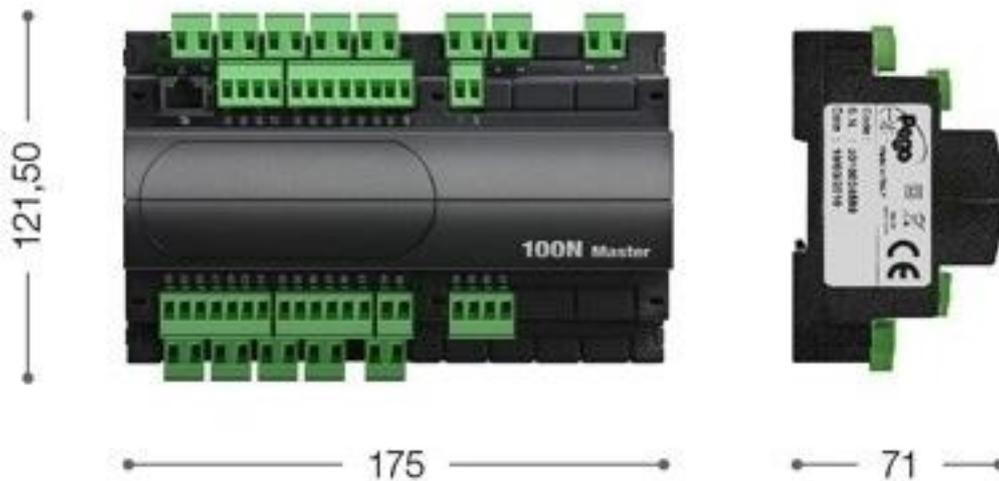
1.3

Dimensions in mm:

VISION TOUCH



100N MASTER3



IDENTIFICATION DATA

1.4

The device described in this manual has on the side of 100N MASTER3 and on the back of the VISION TOUCH PAN console, a plate bearing its identification data:

- Name of Manufacturer
- Description and code
- Serial number
- Date of production
- Power supply

**Pego** Console **CE UK CA**  
 MADE IN ITALY RoHS compliant  
 Description: KIT VISION TOUCH PAN  
 Code: 200VT100PAN1  
 S.N. : 23000000001  
 MFG Date: 08/05/2023

**Pego** 100N MASTER3 **CE UK CA**  
 MADE IN ITALY RoHS compliant  
 Description: KIT VISION TOUCH PAN  
 Code: 200VT100PAN1  
 S.N. : 23000000001  
 MFG Date: 08/05/2023  
 P. Supply: 110-230Vac +/-10% 50-60Hz

<b>Power supply</b>			
Voltage	110 - 230 V~ ± 10% 50/60Hz		
Max power consumption (electronic controller only)	~ 15 VA		
<b>Climatic conditions</b>			
Operating temperature	-5T50°C <90% R.H. non-condensing		
Storage temperature	-10T70°C <90% R.H. non-condensing		
<b>General features</b>			
Type of connectable probes (temperature)	NTC 10K 1%		
Resolution (ambient temperature)	0.1 °C		
Precision of probe detection (ambient temperature)	± 0,5 °C		
Reading range	-45 ÷ +99 °C		
Humidity probe	analogue input 4-20 mA		
Precision of humidity probe detection	see humidity probe features		
Range of humidity probe detection	0 ÷ 100 R.H.%		
<b>Output features</b>			
Description	Relay installed	Features of output board	Notes
Output 3-4	(30A AC1 relay)	30A 240V~ (AC1) 10A 240V~ (AC3) (2HP) (100000 cycles)	All outputs are voltage-free contacts
11 outputs from 5 to 26 (see connections diagram)	(16A AC1 relay)	16A 240V~ (AC1) 3A 240V~ (AC3)	
<b>Dimensional features</b>			
Dimensions 100N MASTER3	121.50 mm x 71 mm x 175 mm (HxDxL)		
Dimensions VISION TOUCH PAN	151 mm x 44 mm x 191 mm (HxDxL)		
<b>Insulation and mechanical properties</b>			
Degree of protection of display	IP65		
Material of box	Self-extinguishing ABS		

## CHAPTER 2: INSTALLATION

### GENERAL RULES FOR THE INSTALLER

2.1

1. If the device is used in applications with risk of damage to people, machines or materials, it is essential to combine it with auxiliary alarm devices.
2. The appliance must NOT be installed in environments with a dangerous atmosphere (flammable or explosive); it can be connected to elements that operate in this atmosphere only by means of appropriate and suitable types of interfaces, in compliance with the safety standards in force.
3. Install the appliance in places which respect the degree of protection.
4. Avoid using multi-pole cables with conductors connected to inductive and power conductors and signal conductors like probes and digital inputs.
5. Avoid housing power cables in the same conduits as signal cables (probes, digital or analogue inputs, communication cables).
6. Minimize the length of the connecting cables to prevent these from coiling up and adversely affecting the electronics through induction.
7. All the conductors of the cables must be of an appropriate size to withstand the required load.
8. Place a general protection fuse upstream the electronic controller.
9. Provide a two-phase disconnecting switch compliant with foreseen safety requirements (CE marked) to shut off the power supply upstream the controller. The switch must be placed in the immediate vicinity of the regulator and must be easily reachable by the operator.
10. Should the length of the probes need to be extended, it is necessary to use conductors with an appropriate cross-section and however no less than 1 mm<sup>2</sup>. Extension or shortening of the probes may alter the factory settings; use an external thermometer, therefore, for testing and calibration.
11. At low temperatures of use, a decrease in the response speed of the display may be visible on the console; this is to be considered normal.

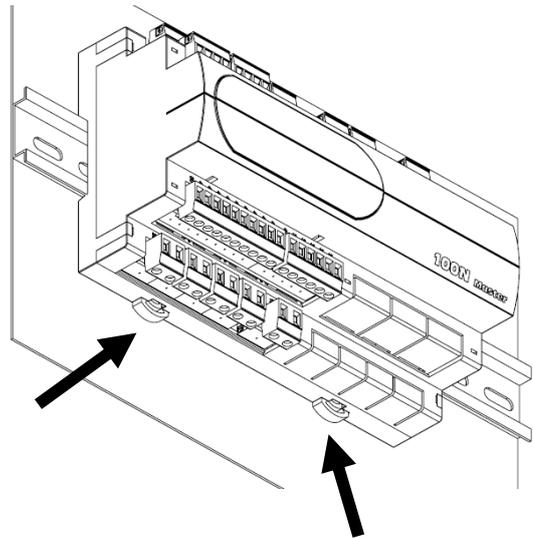
### STANDARD EQUIPMENT FOR ASSEMBLY AND USE

2.2

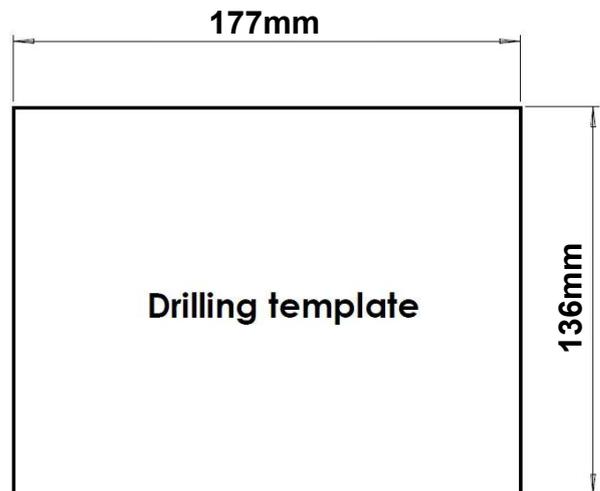
The **VISION TOUCH PAN** electronic controller, for assembly and use, is equipped with:

- 2 temperature probes;
- 1 plug telephone cable (5m);
- 1 user quick guide;
- 1 Vision Touch PAN (200VTOUCHPAN) console;
- 4 media for Vision Touch console;
- N° 1 100N MASTER3 (200100NMSTH3);

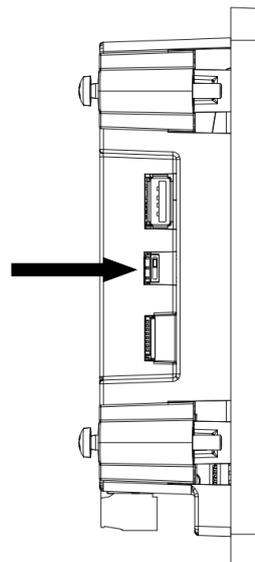
**Fig. 1:** Install the 100N MASTER3 module on the DIN guide and close the bottom clamps to hold it in place.



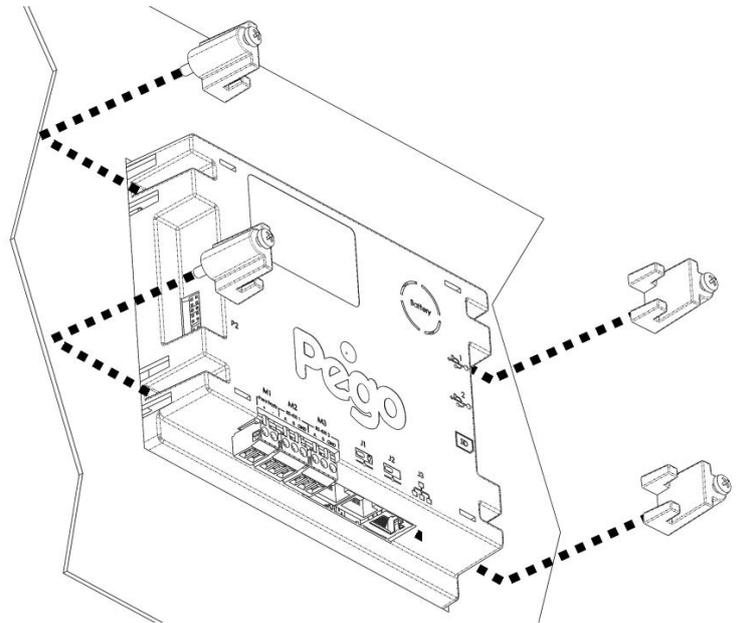
**Fig. 2:** VISION TOUCH THR console drilling template.



**Fig. 3:** In case of assembly in a low position, we suggest rotating the display by 180° so as to have the signal LEDs in the upper part. It is possible to invert the viewing angle of the display by 180° by acting on the side selector. This allows you to mount the VISION TOUCH at any height.



**Fig. 4:** Fasten the **VISION TOUCH** console with the four media to be inserted in their specific seats. Tighten each screw until the entire border front of the console rests on the panel.



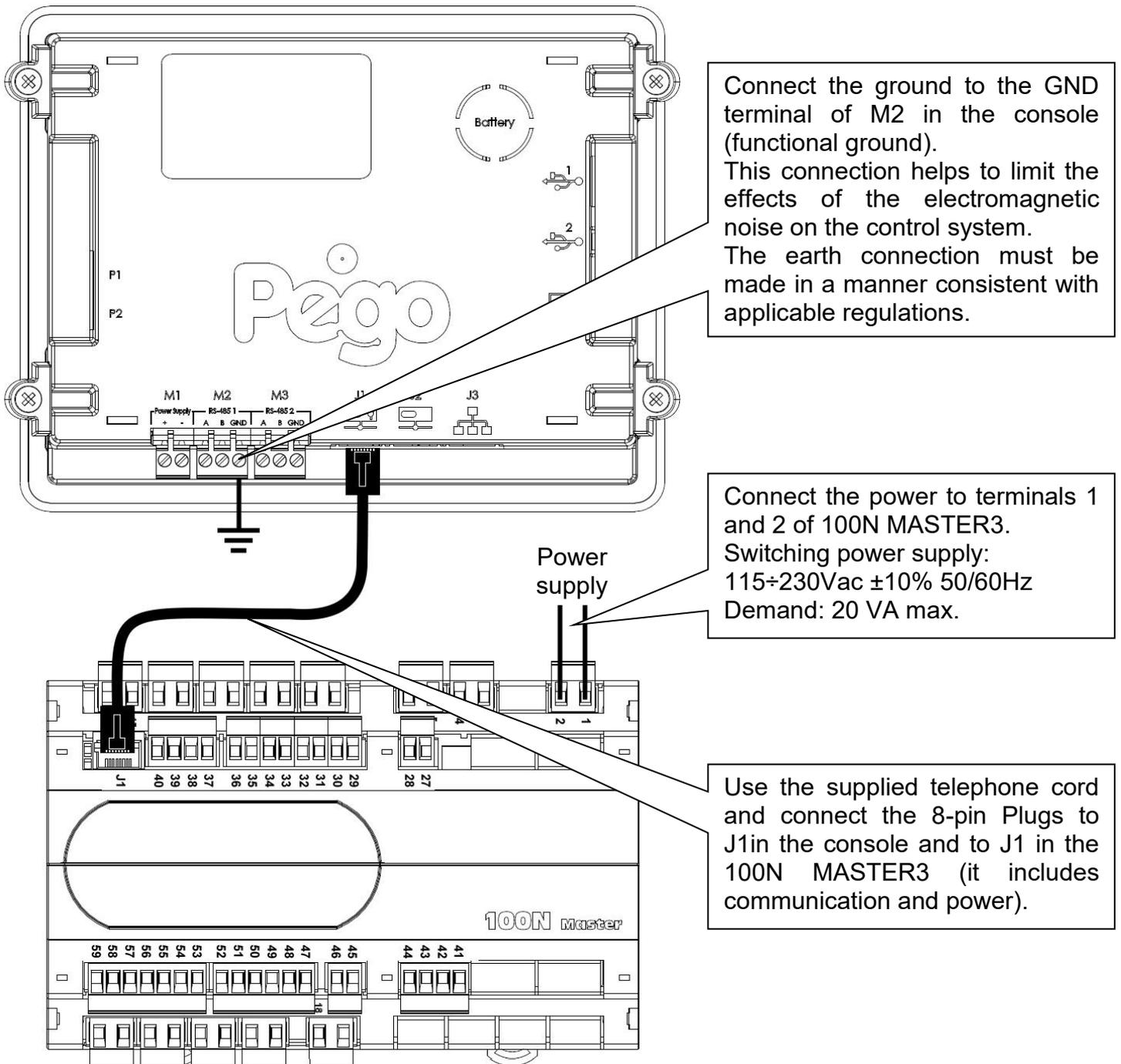
## CHAPTER 3: ELECTRICAL CONNECTIONS

Following are the electrical connections of the controller divided by type. The configurations of the inputs and outputs shown below are set by default but can be changed to suit your needs. The connection between the console and 100N MASTER3 has two possible variants based on the distance between the two components.

### 3.1

#### POWER SUPPLY AND CONNECTION CONSOLE / 100N MASTER3

##### 1) Connection between the console and 100N MASTER3 with distance up to 10m:



2) Connection between the console and 100N MASTER3 with distance up to 500m:

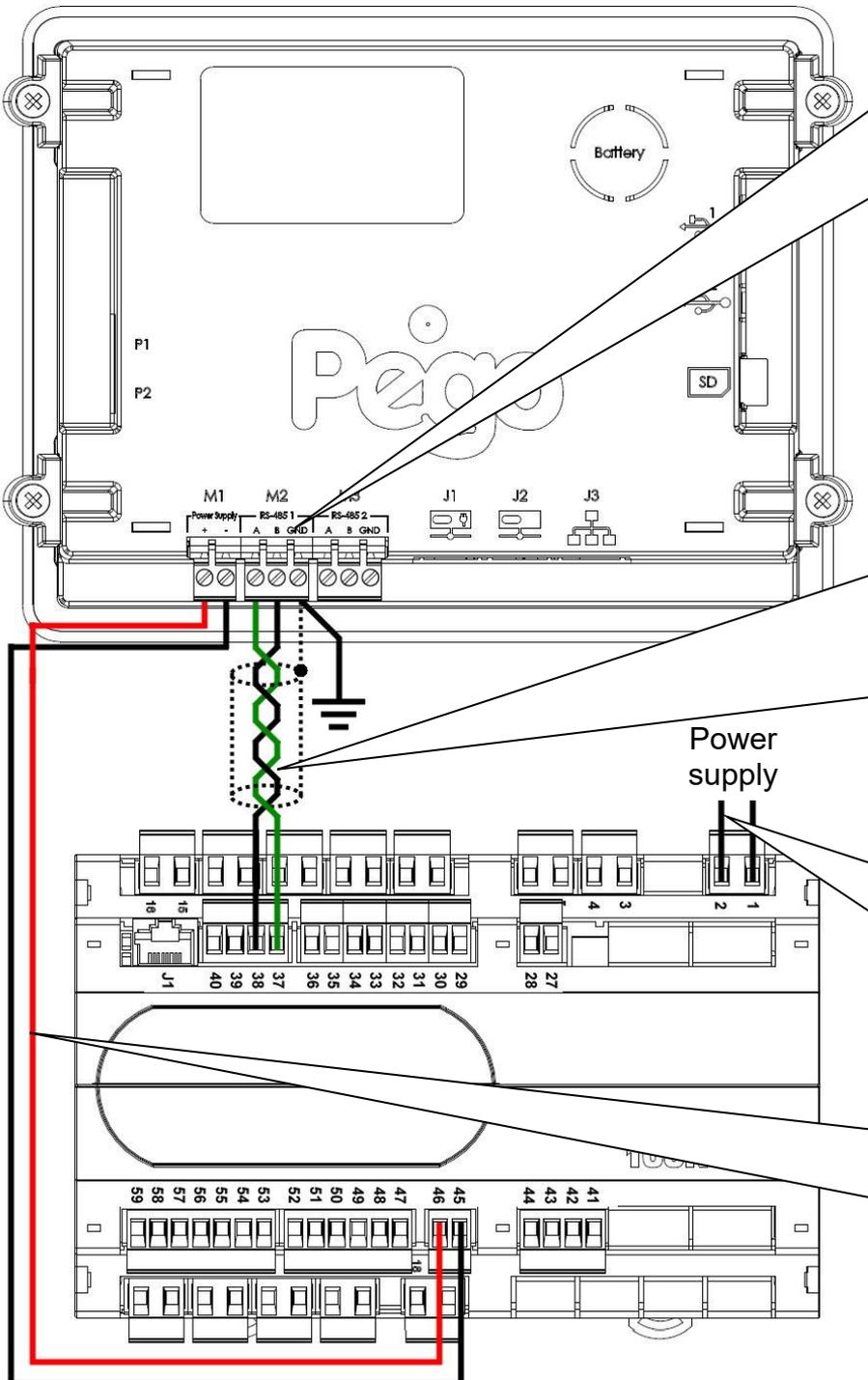
Connect the ground to the GND terminal of M2 in the console (functional ground). This connection helps to limit the effects of the electromagnetic noise on the control system. The ground connection must be made in a manner consistent with applicable regulations.

Connect terminal (1) of M2 in the console to terminal 37 of 100N MASTER3 and term (B) of M2 in the console to terminal 38 of 100N MASTER3. Connect the braid of the shielded cable to the (GND) terminal of M2 in the console.

Use twisted cable suitable for the transmission of RS485 signals with minimum section of 0.5mm<sup>2</sup> (e.g. Belden 8762 cable). Avoid placing the signal cables together with power cables.

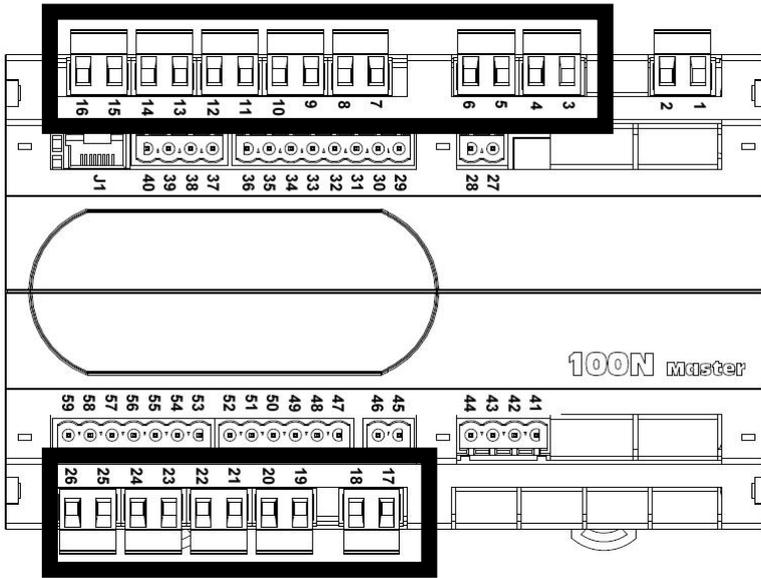
Connect the power to terminals 1 and 2 of 100N MASTER3. Switching power supply: 115÷230Vac ±10% 50/60Hz Demand: 20 VA max.

Connect terminal (-) of M1 in the console to terminal 45 of 100N MASTER3 and term (+) of M1 in the console to terminal 46 of 100N MASTER3. Avoid placing the signal cables together with power cables.



3.2

DIGITAL OUTPUT CONNECTION ON 100N MASTER3



POSSIBLE CONFIGURATIONS  
DIGITAL OUTPUTS DO1÷DO12

**Access menu:**  
*Parameters > Configure I/O > Digital outputs*

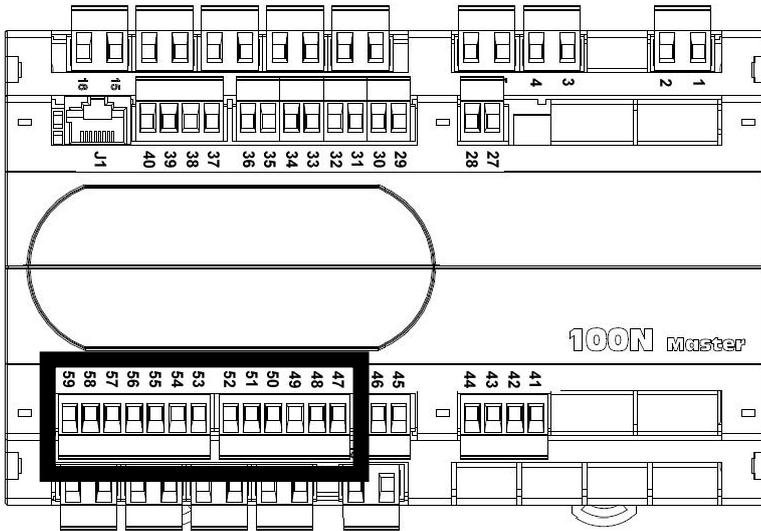
- 0 = Disabled
- 1 = Hot
- 2 = Cold
- 3 = Fan high speed
- 4 = Fan low speed
- 5 = Humidification
- 6 = Dehumidification
- 7 = Light
- 8 = Air Renewal
- 9 = Defrosting
- 10 = End recipe
- 11 = Oven advance ignition
- 12 = Pump-down solenoid valve
- 13 = Door resistance
- 14 = Alarm (only DO12)

Positive values = Contact N.O.  
Negative values = Contact N.C.

PIN TERMINALS	DIGITAL OUTPUT	DEFAULT SETTINGS DIGITAL OUTPUTS		RELAY OUTPUT FEATURES (Voltage-free contacts)
3-4	DO1		2 = Cold (contact N.O)	Relay 30A 240V~ (AC1) 10A 240V~ (AC3) (2HP)
5-6	DO2		1 = Hot (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)
7-8	DO3		3 = Fans high speed (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)
9-10	DO4		4 = Fans low speed (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)
11-12	DO5		5 = Humidify (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)
13-14	DO6		6 = Dehumidify (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)
15-16	DO7		7 = Light (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)
25-26	DO8		8 = Air renewal (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)
23-24	DO9		11 = Oven advance ignition (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)
21-22	DO10		9 = Defrosting (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)
19-20	DO11		10 = End recipe (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)
17-18	DO12		13 = Alarm (contact N.O)	Relay 16A 240V~ (AC1) 3A 240V~ (AC3)

DIGITAL INPUT CONNECTION ON 100N MASTER3

3.3



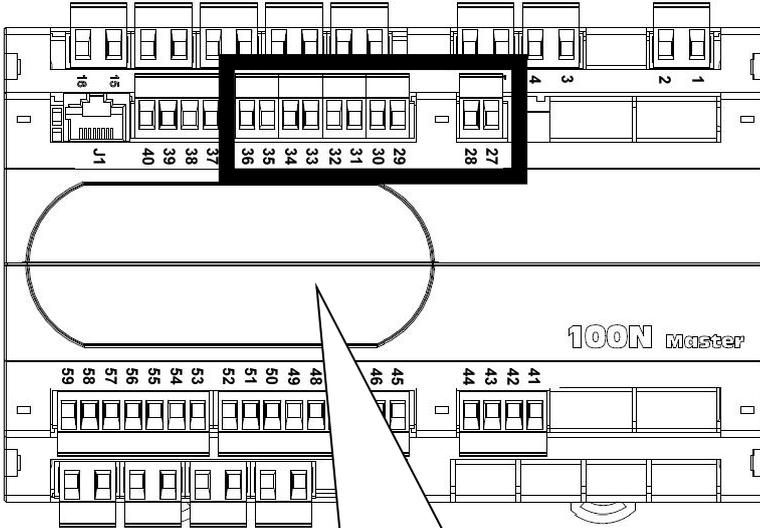
POSSIBLE CONFIGURATIONS  
DIGITAL INPUTS DI1÷DI12

**Access menu:**  
*Parameters > Configure I/O > Digital inputs*

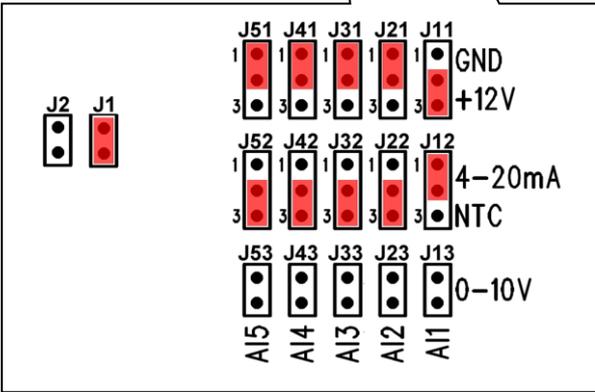
- 0 = Disabled
- 1 = Door switch
- 2 = Alarm
- 3 = Stand-by
- 4 = Disable hot
- 5 = Disable humidity
- 6 = Compressor protection
- 7 = Humidifier alarm
- 8 = Fans protection
- 9 = Generic Warning 1
- 10 = Generic Warning 2
- 11 = Generic Warning 3
- 12 = High pressure
- 13 = Low pressure
- 14 = Door switch read-only

Positive values = Contact N.O.  
Negative values = Contact N.C.

PIN TERMINALS	DIGITAL INPUT	DEFAULT SETTINGS OF DIGITAL INPUTS (Use voltage-free contacts)	
47-59	DI1		1 = Door switch (function Not active with contact N.O.)
48-59	DI2		2 = Alarm (function Not active with contact N.O.)
49-59	DI3		3 = Stand-by from remote (function Not active with contact N.O.)
50-59	DI4		4 = Disable hot (function Not active with contact N.O.)
51-59	DI5		5 = Disable humidity (function Not active with contact N.O.)
52-59	DI6		6 = Compressor protection (function Not active with contact N.O.)
53-59	DI7		7 = Humidifier alarm (function Not active with contact N.O.)
54-59	DI8		8 = Fans protection (function Not active with contact N.O.)
55-59	DI9		9 = Generic Warning 1 (function Not active with contact N.O.)
56-59	DI10		10 = Generic Warning 2 (function Not active with contact N.O.)
57-59	DI11		12 = High pressure (function Not active with contact N.O.)
58-59	DI12		13 = Low pressure (function Not active with contact N.O.)



POSSIBLE CONFIGURATIONS ANALOGUE INPUTS AI1 ÷ AI5	
<b>Access menu:</b> <i>Parameters &gt; Configure I/O &gt; Analogue inputs</i>	
0 = Disabled 1 = Ambient temperature (NTC) 2 = Evaporator temperature (NTC) 3 = Ambient humidity probe (4-20mA) 4 = Hot water temperature (NTC) 5 = Cold water temperature (NTC)	



The selection of the desired function for each analogue input is done by the configuration of the dedicated parameter in the "Parameters > Configure I/O > analogue inputs" menu combined with the correct setting of the Hardware configuration jumpers on the 100N-MASTER3 under the removable front cover (see the side image).

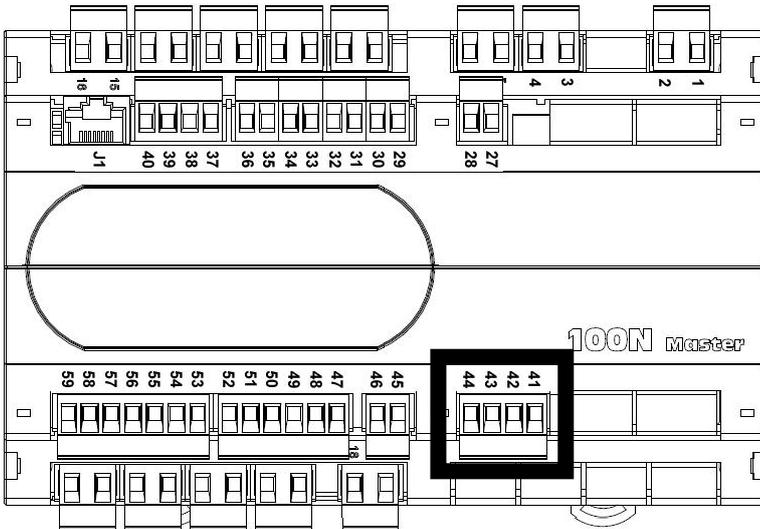
In particular, the configuration is as follows:

- For NTC probes: J\*1=1-2, J\*2=2-3, J\*3=open
  - For 4-20mA probes: J\*1=2-3, J\*2=1-2, J\*3=open
- \*= number analogue input

PIN TERMINALS	DESCRIPT. TERMINALS	TYPE OF SIGNAL	ANALOGUE INPUT	DEFAULT SETTINGS ANALOGUE INPUTS	DEFAULT SETTINGS BRIDGES ON 100N MASTER3
27	RH	4-20mA	<b>AI1</b>	3 = Ambient humidity probe	J11=2-3 J12=1-2 J13= open
28	V+				
29		NTC	<b>AI2</b>	1 = Ambient temp.	J21=1-2 J22=2-3 J13= open
30					
31		NTC	<b>AI3</b>	2 = Evaporator temp.	J31=1-2 J32=2-3 J33= open
32					
33		NTC	<b>AI4</b>	0 = Disabled	J41=1-2 J42=2-3 J43= open
34					
35		NTC	<b>AI5</b>	0 = Disabled	J51=1-2 J52=2-3 J53= open
36					

ANALOGUE OUTPUT CONNECTION ON 100N MASTER3

3.5



POSSIBLE CONFIGURATIONS  
ANALOGUE OUTPUTS AO1÷ AO3

Access menu:

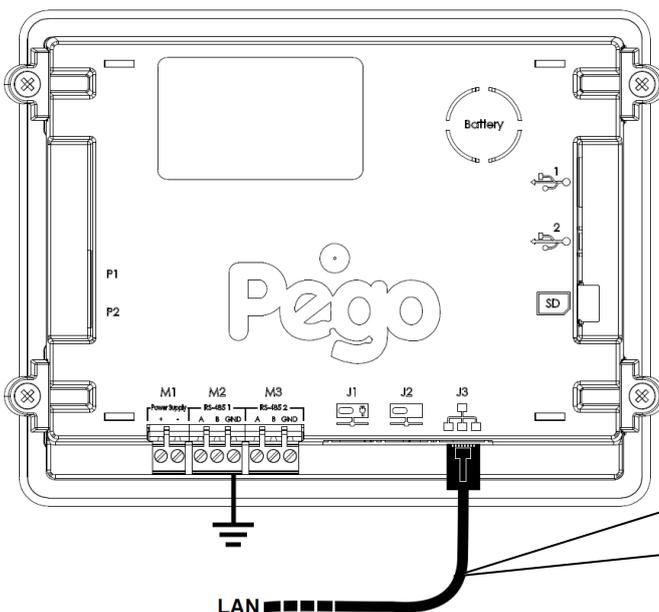
Parameters > Configure I/O > analogue outputs

- 0 = Disabled
- 1 = Speed of the evaporator fans
- 2 = Humidifier regulation
- 3 = Cold water adjustment
- 4 = Hot water adjustment

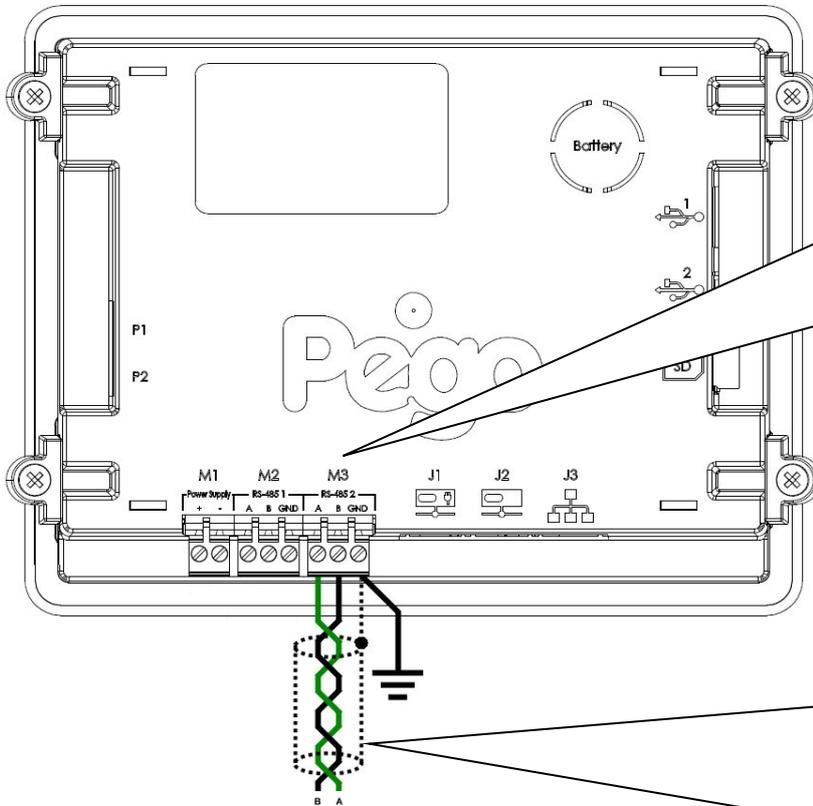
PIN TERMINALS	DESCRIPT. TERMINALS	TYPE OF SIGNAL	ANALOGUE OUTPUT	DEFAULT SETTINGS OF ANALOGUE OUTPUTS
41	Ref.	0-10V	AO1	1 = Speed of the evaporator fans
44	Gnd			
42	Ref.	0-10V	AO2	0 = Disabled
44	Gnd			
43	Ref.	0-10V	AO3	0 = Disabled
44	Gnd			

ETHERNET CONNECTION ON VISION TOUCH

3.6



Connect the Ethernet cable with RJ45 connector to the J3 input of the Vision Touch console. Connect the other end of the cable to the existing LAN or to the PC.



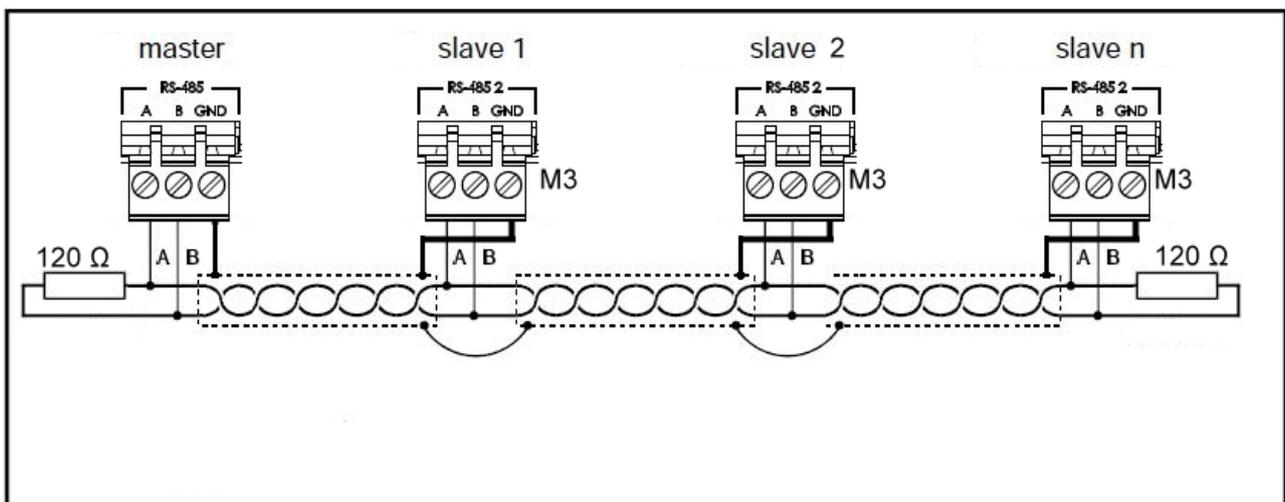
Connect the earth to the GND terminal of M3 in the console (functional earth). This connection helps to limit the effects of the electromagnetic noise on the control system. The ground connection must be made in a manner consistent with applicable regulations.

Connect the terminal (A) of M3 in the console to signal A of the Modbus line and the terminal (B) of M3 in the console to signal B of the Modbus line. Connect the braid of the shielded cable to the terminal (GND) of M3 in the console. Use twisted cable suitable for the transmission of RS485 signals with minimum section of 0.5mm<sup>2</sup> (e.g. Belden 8762 cable). Avoid placing the signal cables together with power cables.

**1) Example of connection between the console and the Modbus line:**

It is recommended to connect a resistance equal to 120Ω between A and B at the beginning and end of the line in case of communication problems.

For a correct functioning the MASTER has to have a RS485 polarized.



## CHAPTER 4: SWITCHING ON

### FIRST SWITCHING ON

4.1

When the controller is switched on for the first time, the "Language Selection" and "time and date setting" pages of the system are displayed to facilitate the user in starting up the controller. These settings can even be modified further on by means of the "Language" and "Date and time" items within the "Parameters" menu.

Set the language by pressing these buttons.

Confirm the settings by pressing the confirmation button.

VISION TOUCH

>Welcome...

Thank you for purchasing PEGO product

Pego Refrigeration

Date/time setup

10:03

Month: 05 Day: 25 Year: 2017

Confirm the settings by pressing the confirmation button.

Automatic daylight time change

VISION TOUCH

>Welcome...

Thank you for purchasing PEGO product

Pego Refrigeration

Every time the controller is switched on, an information pop-up is displayed with the starting date and time, requesting the user to acquire the information by pressing "OK". This allows to verify the return from an electrical blackout.



The start-up event is also memorized inside the "alarms" menu to make it possible to verify this information over time.



## CHAPTER 5: USER INTERFACE

This section illustrates the features and instructions for using the display, the light indicators and the buttons making up the user interface of the VISION TOUCH PAN, and therefore represent an essential requirement to correctly program and configure the controller.

### CONSOLE FUNCTIONAL ZONES

5.1

The display is divided into 3 main parts:

- **Main display:** interactively displays the various home pages and menu items.
- **Status bar:** it is divided into 3 parts and displays the following data:
  - on the left: running status and name of program in progress.
  - in the middle: description of current visualization of main display.
  - on the right: current date/time, presence of USB key, or access as installer.
- **Button bar:** views the main operating buttons and their status.

At the bottom in the middle there are two LEDs:

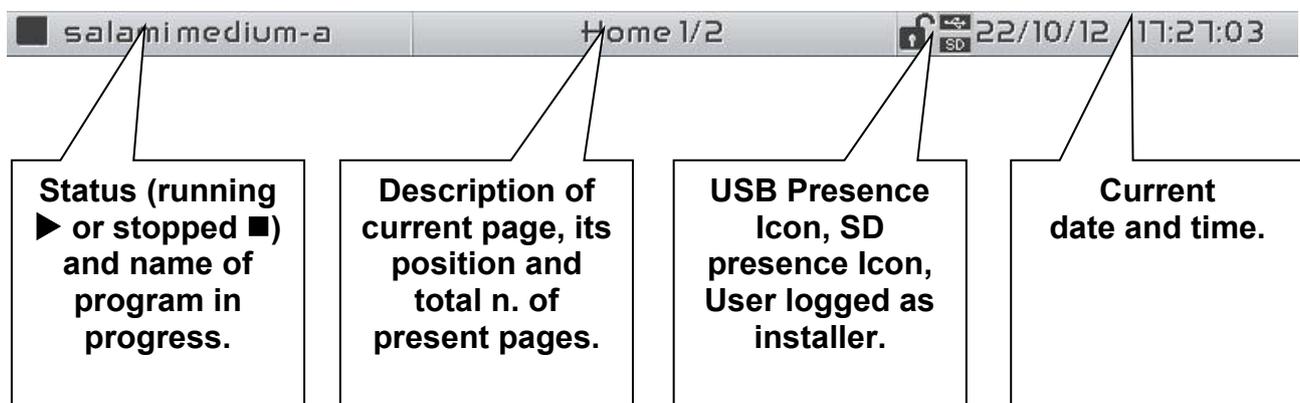
**Green LED:** Flashing = controller in stand-by / On fixed = Controller powered.

**Red LED:** Flashing = controller in Alarm.



The section of the main display views the work and setting pages based on the position (for example Home, Configuration, phase). A detailed description of the various pages will be made further on in this manual.

The Status Bar is in the lower part of the display (above the Button Bar, if applicable) and displays some important information relating to the status of the device, such as the name of the recipe in progress and the description of the currently displayed page. It is always present except when, in some rare cases, it is temporarily hidden to fully exploit the display.



The Button Bar is at the bottom of the display and views the main operating buttons and their status. It's always present except when, in some rare cases, it's temporarily hidden to fully exploit the display.



The buttons can have different shapes but always include an icon, a description and a colour identifying the status.

In particular, the colour code of the buttons is the following:



**BLUE:**  
Button which can be enabled



**GREY:**  
Button not active (Disabled)



**GREEN:**  
Button function activated or Confirmation button



**YELLOW:**  
Cancel button



**RED:**  
Alarm triggered indication or File elimination button



**ORANGE:**  
Indication of alarm no longer triggered but yet to be acquired

Some buttons have delayed activation to avoid unintentional commands (see standby for example). When pressed the progressive colour change is viewed until the function is activated.

## Description of buttons in Button Bar:



Back

**BACK:**

Inside a menu or level: Go back to previous level or menu.  
In a HOME page: Go back to the previous Home page.  
If held for longer than 3 seconds: Go back to HOME1 page.



Paramet.

**PARAMETERS:** Enter the parameter setting menu.



Alarms

**ALARMS:** Enter the alarm log menu.

Red: Alarm triggered.  
Orange: Alarm over but yet to be acquired.  
Blue: No Alarm triggered or to be acquired.

If the alarm log menu contains only items already acquired (shown in black) a waste bin will appear inside this button indicating the possibility of cancelling the entire log.



Help

**HELP:** Access the Help page that contains all the information about the manufacturer/installer of the instrument. The data on this page may be modified by a user who is logged in as an installer.



Air ren.

**MANUAL AIR RENEWAL:** Activates a manual air renewal or deactivates an automatic or manual one in progress. (delayed start).

Green: Air renewal active.  
Blue: Air renewal not active.



Defr.

**MANUAL DEFROST:** Activates a manual defrost or deactivates an automatic or manual one in progress. (delayed start).

Green: Defrost output active.  
Blue: Defrost output not active.



Light

**MANUAL COLD ROOM LIGHT BUTTON:** Manually activates/deactivates the cold room light.

Green: Light active.  
Blue: Light not active.

Flashing light icon: Indicates the forced activation of the light from the digital input of the door switch open. With the open door digital input, the manual cold room light, defrost, recovery and air cycle buttons are deactivated.



Standby

**STANDBY BUTTON:** Activates/deactivates the standby status (delayed start).

Green: Standby active (System OFF).  
Blue: Standby not active (System ON).

During standby, the program in progress keeps the count of the remaining time.



Manager

**PROGRAM MANAGEMENT MANAGER BUTTON:**

(Present in the Extended Button bar).

Once this is pressed, the program management screen appears, which allows data to be imported from or exported to a USB or SD card.



File CSV

**PROGRAM DATALOGGER EXPORT:**

(Present in the Extended Button bar).

Once this is pressed, a CSV file with the executed program history will be exported to a USB key.



**EXTENDED BUTTON BAR OPENING BUTTON:**

Opens or closes the EXTENDED BUTTON BAR that allows access to additional buttons.

The Vision Touch, aside from normal pressing of keys, on some pages supports gestures which allow the user a more natural and therefore simpler interaction.

**Change Home Page:** On one Home page, move your finger to the left or to the right to pass from one Home page to the next one or to the previous one.

Note: it is also possible to move inside the Home pages by pressing the Back button.

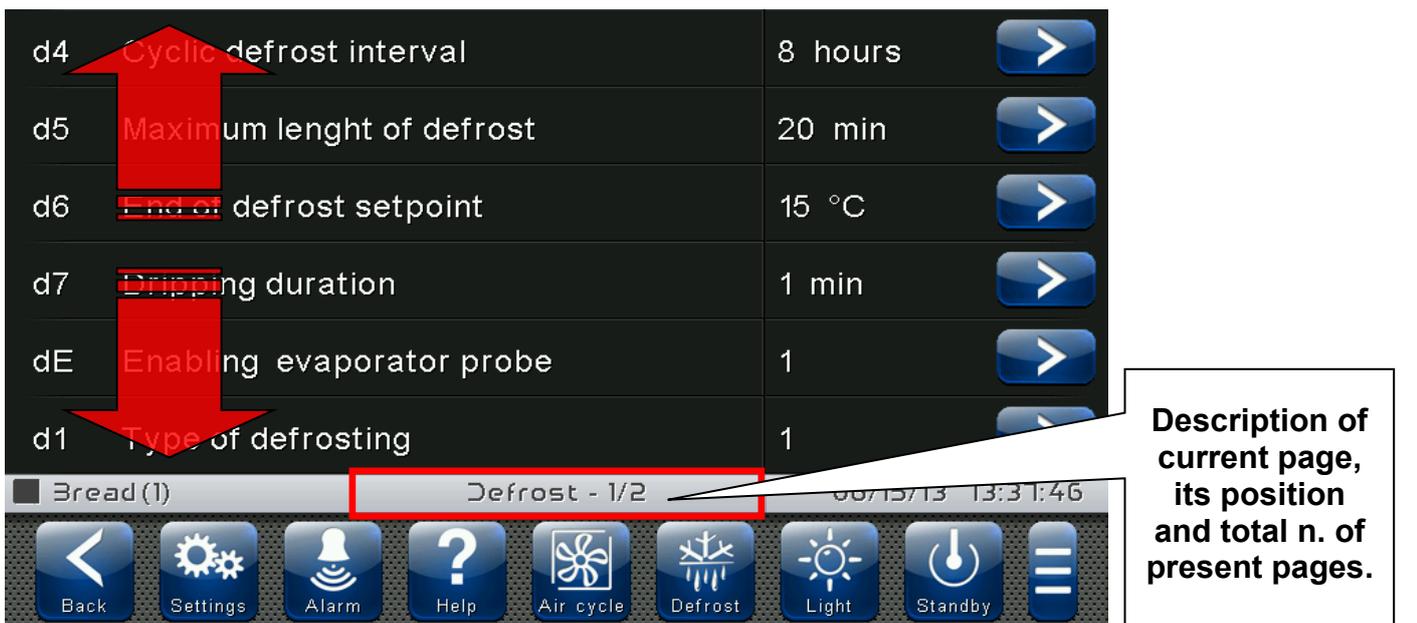
The middle of the status bar has the description of the page currently displayed.



Description of current page, its position and total n. of present pages.

**Change Page of a table or parameter list:** Swipe a finger up or down to go to the next or previous page of data.

The status bar in the central position shows the description of the page currently displayed, its position and the total number of pages that can be viewed.



Description of current page, its position and total n. of present pages.

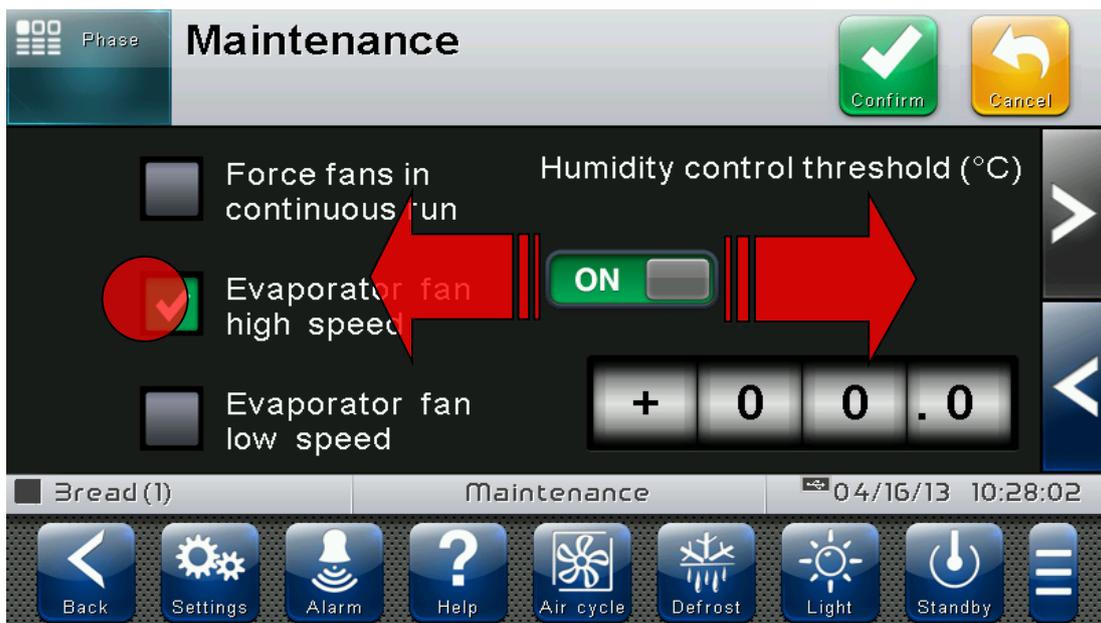
**Change parameters with roll selection:** move your finger up or down by one roll to change its value (suggestion: slide your finger starting from the outside of the roller and crossing it completely).

If the value you are trying to set is not allowed and is not included in the range of the parameters, the background of the roll will turn red for an instant indicating that the action is not allowed.



**Changing parameters with a switch:** Move your finger to the right or to the left to activate or deactivate a switch.

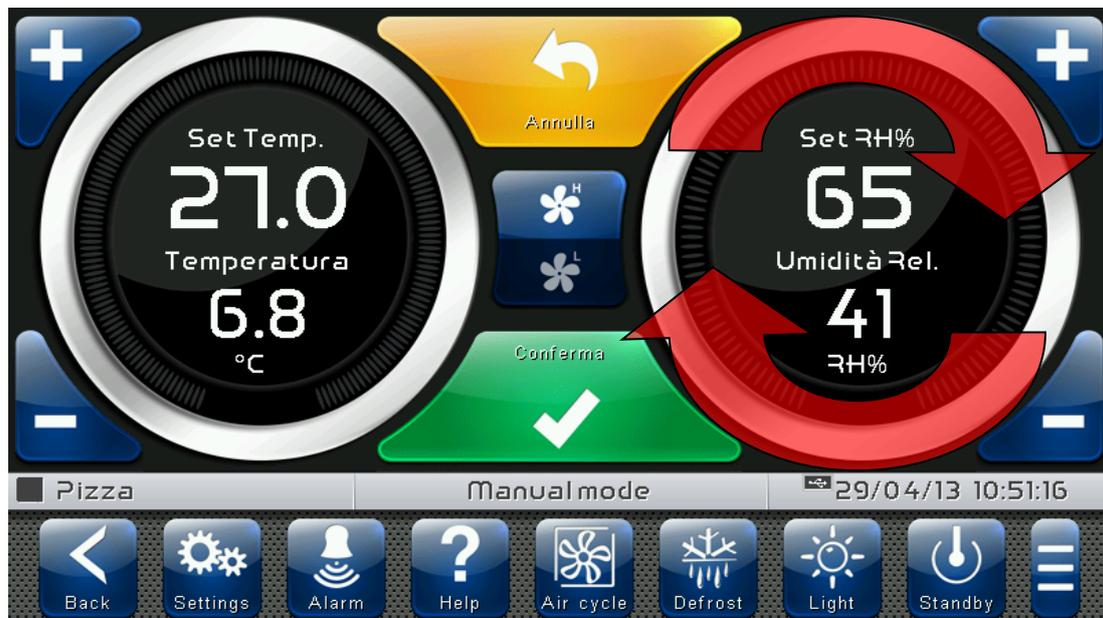
**Selection of parameters with Flags:** press the flag to change the status or to select one of the possible options.



**"Edit" mode in Home 1 and 2 pages:** When you are on one of the Home pages, touch the screen at a point which is not a button for more than three straight seconds to enter edit mode of the page itself. To exit this mode, press the "Back" button or wait for the automatic exit after one minute of inactivity.



**Edit Home 1 Page, Change Set Point with Wheel:** Once you have entered edit mode on Home 1, it is possible to change the humidity and temperature Set Points currently in use. The variations are temporary and do not alter the preset program. Turn clockwise to increase or anti-clockwise to decrease the value of the Wheel of the Set Point to be modified or else act on the plus or minus buttons. Then confirm the new values by pressing the green confirmation button.



## CHAPTER 6: HOME PAGES

The "Home" pages are the main interface of the controller from whence it is possible to access the mostly used features. They are divided as follows:

### MANUAL MODE (HOT OR COLD)

Display/modify the temperature and humidity setpoints, modify the fan speed and select the manual mode.



### AUTOMATIC PROGRAMS

Complete management of programs (Recipes): Display, create, edit, delete and load.



### CURRENT PROGRAM (GRAPH)

Display program progress, modify the temperature and humidity setpoints and view the complete configuration of the current program.



### CURRENT PROGRAM (SETPOINT)

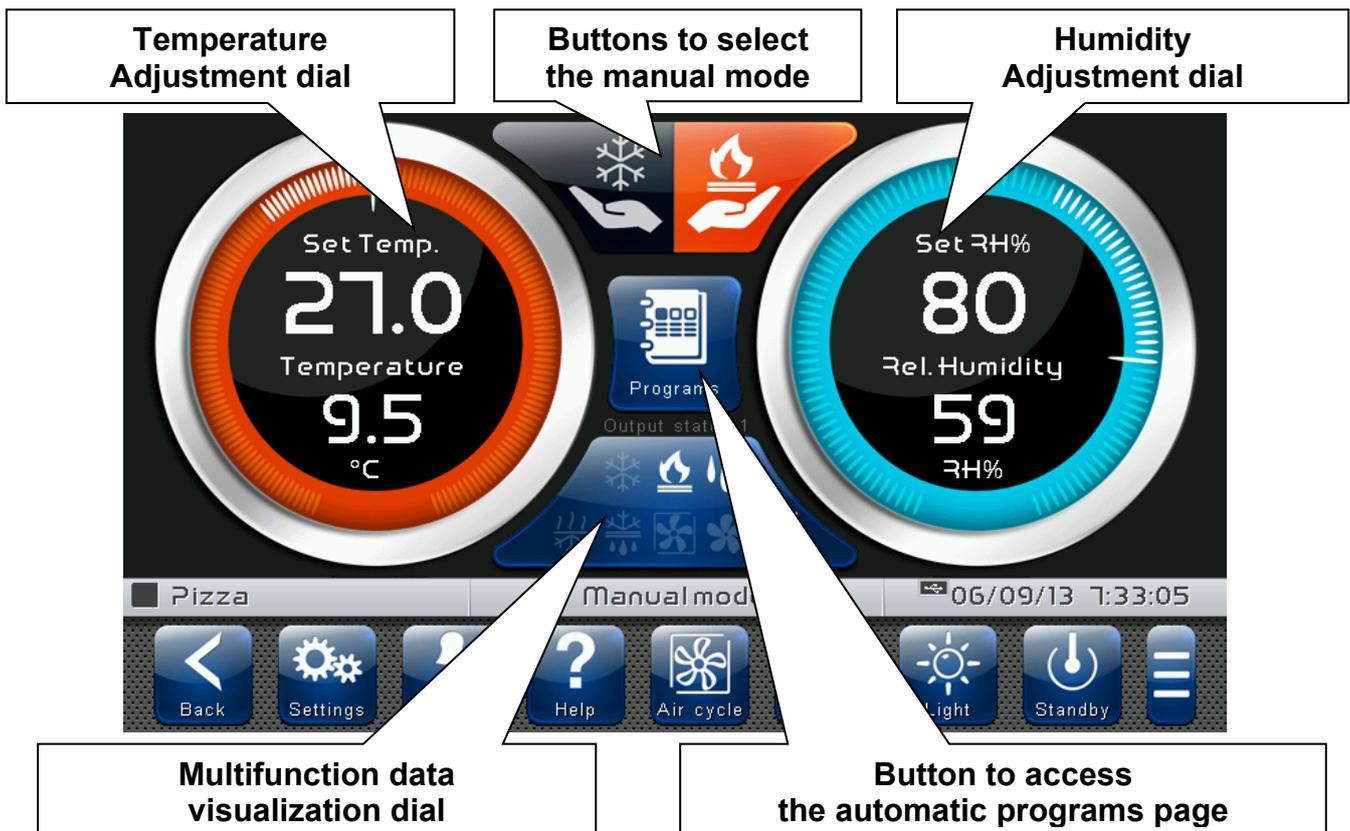
Display/modify the temperature and humidity setpoints and modify the fan speed of the current phase.



**MANUAL MODE - Select the manual mode, Temperature/Humidity Management****6.1**

The "MANUAL MODE" page allows the manual mode that is to be used (hot/cold) to be selected, the Temperature and Humidity settings to be displayed and modified and access to the recipes page by pressing the Select Program button.

- When in visualization, it is divided into 4 main sections:
- **Buttons to select the manual mode.**
- **Temperature adjustment dial.**
- **Humidity adjustment dial.**
- **Multifunction data visualization dial.**
- **Button to access the automatic programs page.**

**Buttons to select the manual mode:****Cold manual mode.** (button with delayed activation)

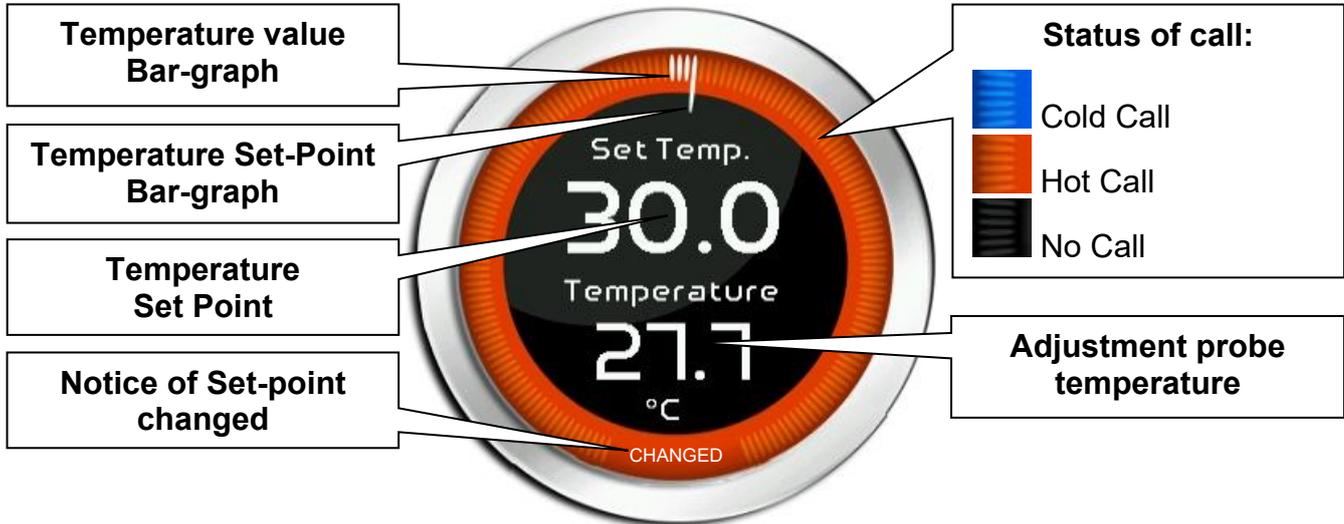
By activating this mode, the temperature setpoint in the StF parameter is first loaded. Only the cold call is controlled according to the set temperature; the programmed defrost cycles are performed if configured via the parameters. Nor the humidity or the hot call is controlled in this mode.

**Hot manual mode.** (button with delayed activation)

By activating this mode, the temperature and humidity setpoints in the StC and SUC parameters are first loaded. The hot/cold calls are controlled according to the set temperature and the humidification / dehumidification requests are controlled according to the set humidity. The defrosting cycles are not controlled.

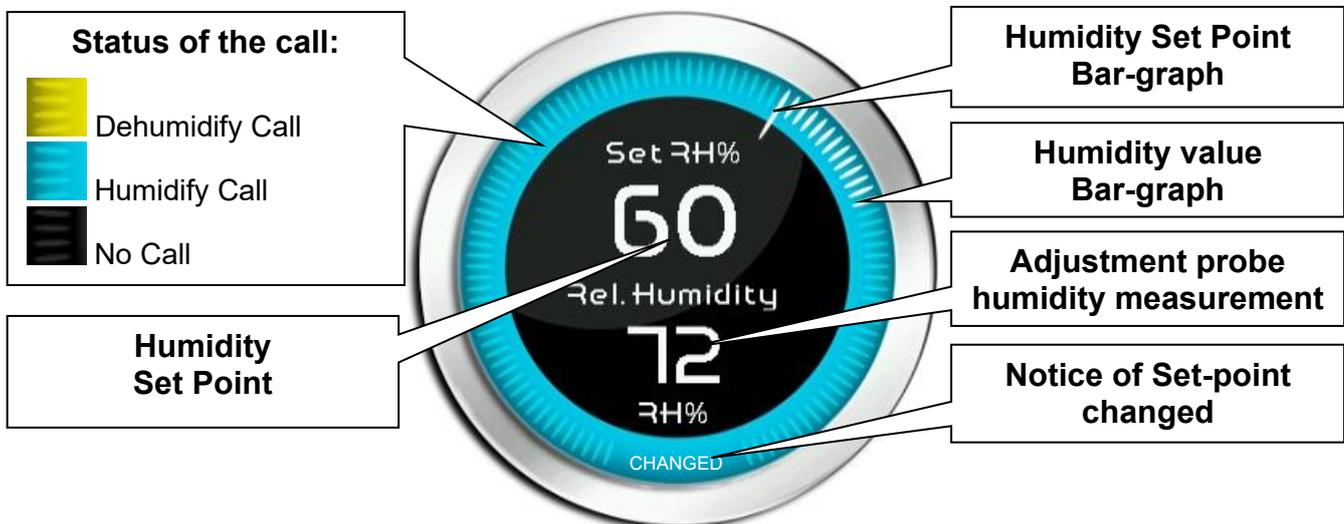
**Temperature adjustment dial:** Displays all that regards temperature adjustment, in particular:

- The temperature set point (can be modified by pressing the dial for 3 seconds).
- Adjustment probe temperature measurement.
- The status of the call (Cold / Hot / No call).



**Humidity adjustment dial:** Displays all that regards humidity adjustment, in particular:

- The humidity set point (can be modified by pressing the dial for 3 seconds).
- Adjustment probe humidity measurement.
- The status of the call (Humidify / Dehumidify / No call).



**Multifunction data visualization dial:** it consists of two parts which, when touched, cyclically alternate the data displayed. The following are the various screens and their related meanings. Note: Some data is only viewed if the relative function is enabled in the configuration parameters.

**DIGITAL OUTPUT 1 STATUS**  
(Always visible)



-  Cold  
Flashing= Standby
-  Hot
-  Humidify
-  Dehumidify separate
-  Dehumidify for heat
-  Dehumidify for cold
-  Defrost  
Flashing= Dripping
-  Fans low speed  
Flashing= Standby
-  Fans high speed  
Flashing= Standby
-  Fans with 0-10V output 0-10V

**DIGITAL OUTPUT 2 STATUS**  
(Always visible)



-  Light  
Flashing= door switch
-  Stand-by

**DIGITAL INPUT 1 STATUS**  
(Always visible)



-  Remote Disable heat remotely
-  Remote Disable humidity remotely
-  Remote Standby remotely
-  Door switch
-  Remote Generic alarm remotely
-  Remote Compressor protection
-  Remote Humidifier alarm
-  Remote Fans protection

**DIGITAL INPUT 2 STATUS**  
(Always visible)



-  Generic Warning 1
-  Generic Warning 2
-  Generic Warning 3

**EVAPORATOR TEMP. PROBE MEASUREMENT / % HUMIDIFIER 0-10V VALUE** (visible if enabled)



Evaporator probe:  
This dial is only viewed if the parameter "Parameters > Defrosts > dE Evaporator probe enabled = 1" and if the related analogue input is set.

% Humidifier 0-10V value:  
This quadrant is displayed only if the 0-10V Humidifier analogue output is configured.

**COLD WATER TEMP. PROBE MEASUREMENT**

(visible if enabled)



This dial is only viewed if the PARAMETER "Parameters > Cold water management > EHv Cold water management enabling = 1" and if the related analogue input is set.

**HOT WATER TEMP. PROBE MEASUREMENT**

(visible if enabled)



This dial is only viewed if the PARAMETER "Parameters > Hot water management > EHv Hot water management enabling = 1" and if the related analogue input is set.

**6.2**

**MANUAL MODE – Modify the Temperature/Humidity setpoint, the fan speed**

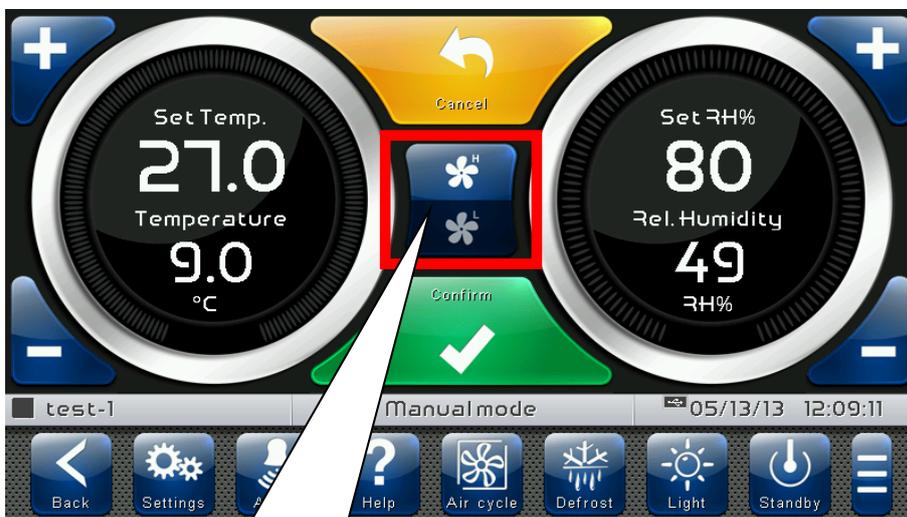
**"Modify setpoint" mode on the MANUAL MODE page:**

Touch one of the adjustment dials on the screen (Temperature or humidity) for more than three consecutive seconds.



Once in modification mode, it is possible to change the humidity and temperature Set Points currently in use by turning the Wheel clockwise to increase or counterclockwise to decrease the value of the Set Point to be modified. Alternatively, you can use the plus and minus buttons. Furthermore, the speed of the fans can be changed using the buttons located in the center of the screen. Then confirm the new values with the green "Confirm" button or press "Cancel" to return to the display screen.

To exit this mode, it is also possible to press the "Back" button or wait for the automatic exit, which occurs after one minute of inactivity.



**Evaporator fan speed selection buttons**

**Evaporator fan speed selection buttons:**



**Evaporator fans high speed.**



**Evaporator fans low speed.**



**Evaporator fans with 0-10V output.**

This button is only displayed if the EFa parameter = 1.  
Press + or - to increase or decrease the evaporator fan speed.

Button to access the automatic programs display page:



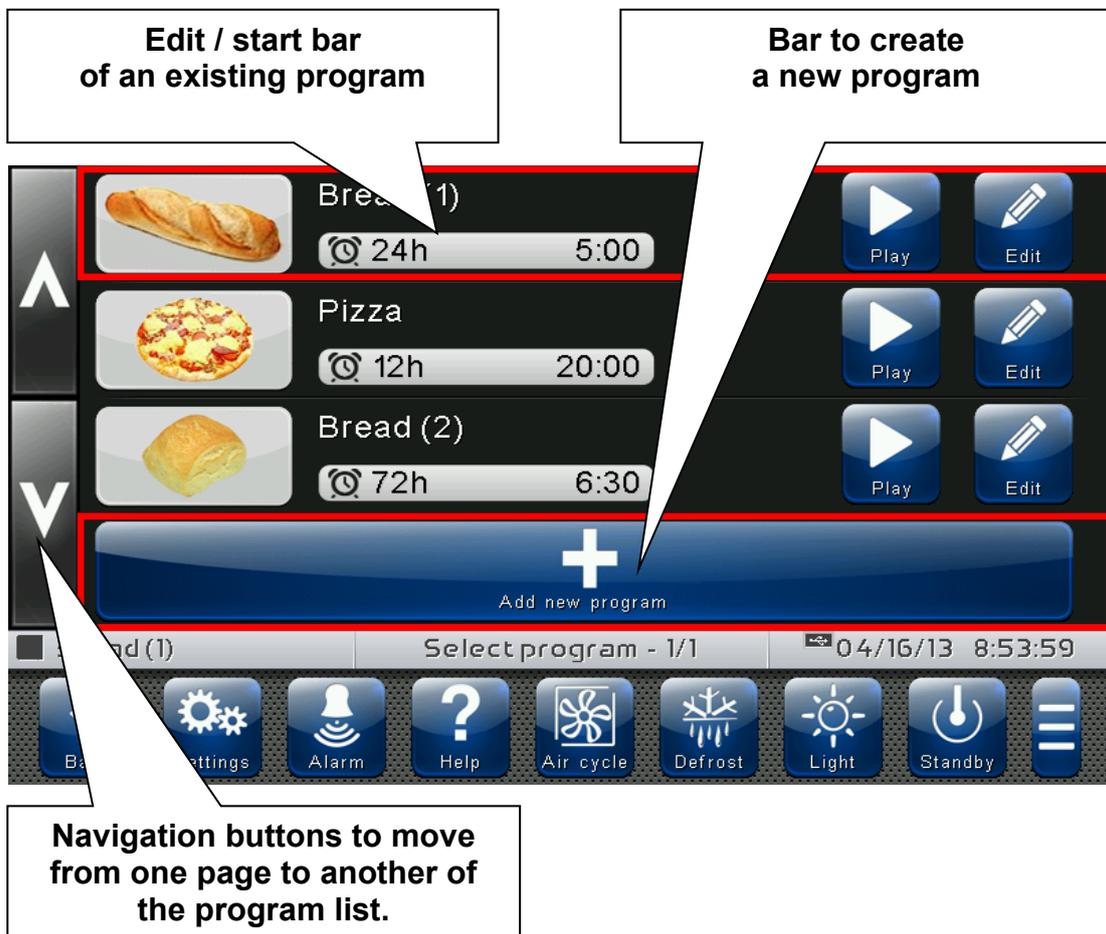
**Program selection:**

Press this button to enter the automatic program management and display page.

The "Program list" allows complete management of the programs (Recipes): view the list, create, edit, delete and start the program.

The page is split into 2 main sections:

- **Edit/start bar of an existing program.**
- **Bar to create a new program.**



The controller will display the "Manual mode" page when the "Back" button is pressed or automatically after one minute of inactivity.

**Bar to create a new program:** Allows a new program to be created; once pressed, it prompts to enter the name using the keyboard and then the configuration of the phases and the general settings.

The phase setting pages of a new program are the same as those used to Modify a program. The internal memory can store up to 12 programs.

**Button to create a new program**



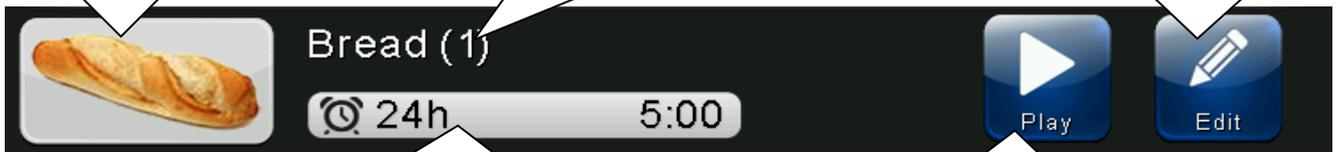
**Edit/start bar of a program:** Displays the name and the icon that identifies the program and the preset time of the prepared product. There are also 2 buttons to:

- Start the program.
- Edit the program.

**Program identification icon**

**Program name**

**Program Edit button**



**Preset day and time for the prepared product**

**Start program**

If the "Edit prepared product now" option has been enabled from the "Parameters > Password > Configure user functions" menu, the following settings page will be displayed every time a program is launched, through which the end time and date of the leavening phase is set.

**Day of prepared product.**

**Hour of prepared product.**





## AUTOMATIC PROGRAMS - Add/Edit Program Phases

6.5

The button appears when the program is stopped and when entering the PROGRAM LIST:



**Edit program:**  
Enters the program edit page.

**Change the generic settings of the program.**

**Enabling the single phases.**

**Change the settings of the enabled phases.**

The screenshot shows the 'Bread (1)' program edit page. At the top, there is a bread icon, the program name 'Bread (1)', and a timer set to '12h' and '0:00'. Below this is a timeline with several phases. A red box highlights the phase settings, which include temperature and humidity values. Callouts point to the 'Change the generic settings of the program' area (top left), 'Enabling the single phases' area (top right), and 'Change the settings of the enabled phases' area (bottom). The bottom of the screen features a navigation bar with buttons for 'Back', 'Help', 'Air cycle', 'Defrost', 'Light', and 'Standby'. The date and time '06/15/13 10:10:27' are displayed in the top right corner.

The buttons appear when the edit page of a recipe is accessed. These are overlapped with the CONFIRM and CANCEL buttons if at least one configuration of the program is edited.



**Delete program.**  
Deletes the program from the memory of the device.

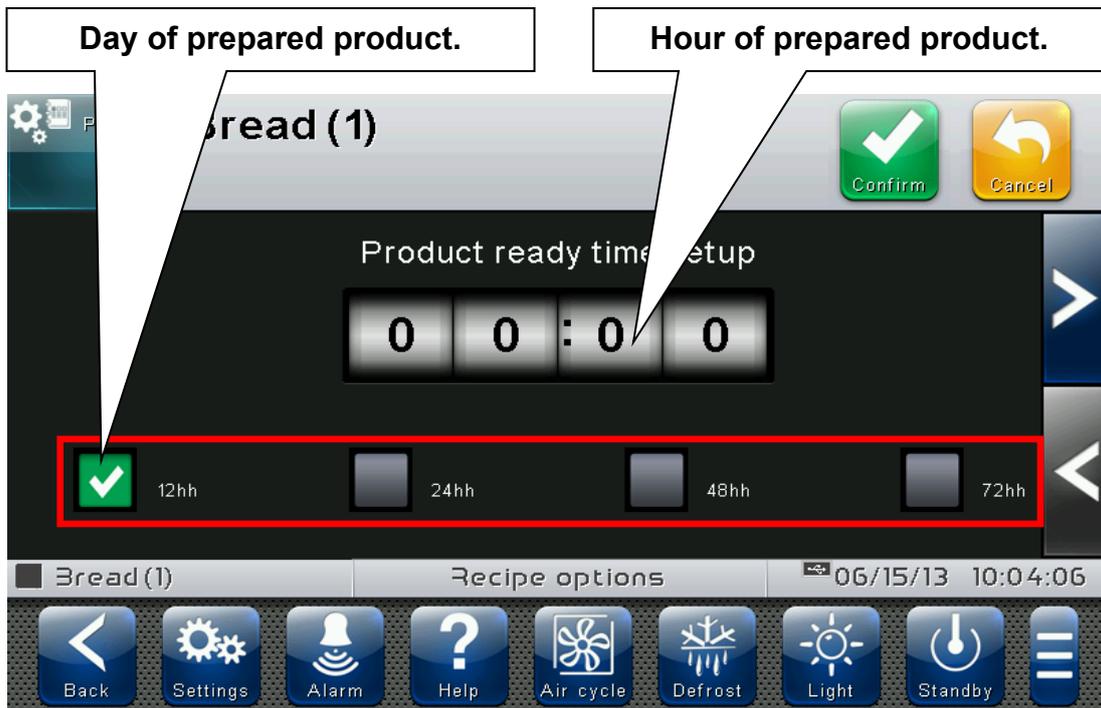


**Copy program.**  
After having entered a new name, it saves a copy of the selected program.

By pressing the button  on the left of the program icon at the top of the summary bar, you enter the following program options configuration page.



**General option configuration page of program 1/3:**



The prepared product settings page is also available when the PLAY button is pressed to start the program, if the 'Edit prepared product now' function is enabled, which can be selected from the "Password" => "Configure user functions" submenu (installer login required).

### General option configuration page of program 2/3:

**Select icon:**  
This button accesses the database of icons that can be used to identify a program.

**Notice (popup) at program end:**  
The user is informed of the end of a program by means of a notice Pop-up.  
(Press OK to acquire the message)

The screenshot shows the 'Bread (1)' configuration screen. On the left, there is a 'Select icon' section with a bread icon. On the right, there are two checked options: 'Notice (popup) at progr. end' and 'Switch on relay at progr. end'. At the top right, there are 'Confirm' and 'Cancel' buttons. At the bottom, there is a navigation bar with 'Back', 'Settings', 'Alarm', and 'Help' buttons, and a status bar with 'Defrost', 'Light', 'Standby', and a menu icon. The date and time '06/15/13 10:03:36' are also visible.

**Switch on relay at program end:**  
A specific relay is activated when the program end notice pop-up is present. By pressing OK in the Pop-up, the relay de-energises and the pop-up closes.

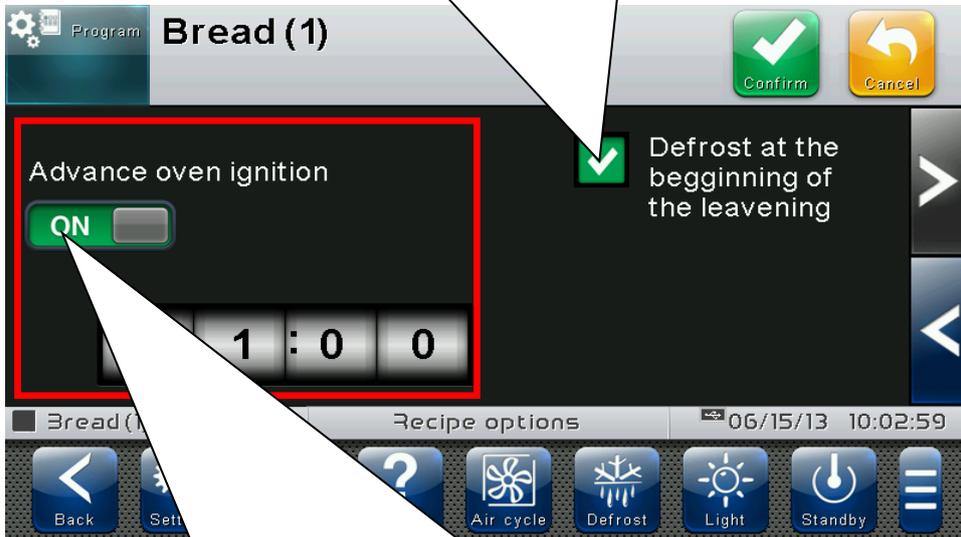
#### Note:

The automatic program is completed when all accumulation, preservation and leavening phases have been performed, excluding the rest phase.

General option configuration page of program 3/3:

**Defrosting when leavening begins:**

if enabled, a defrosting process is performed at the beginning of the leavening phase.



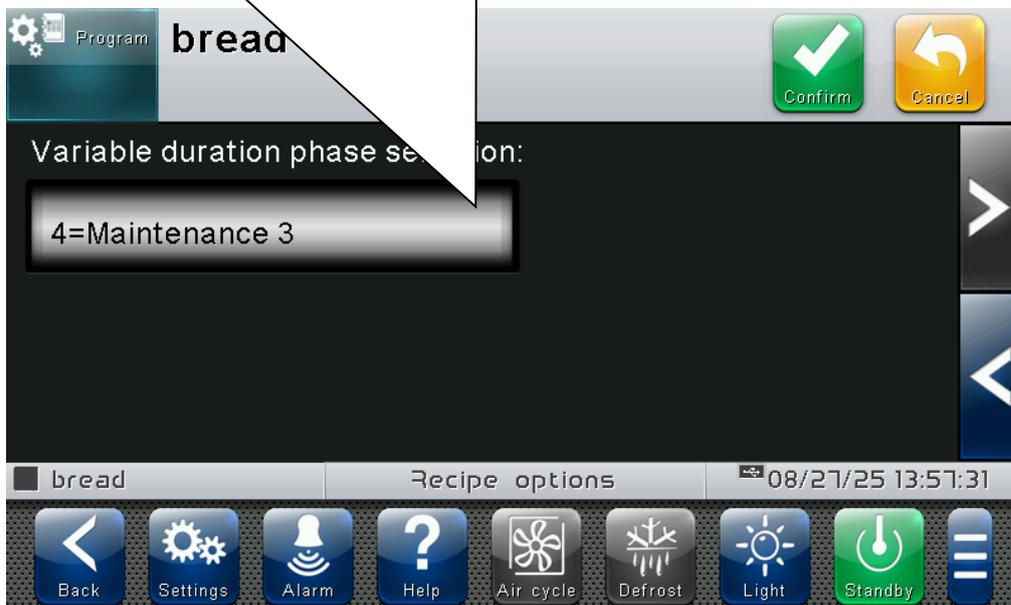
**Oven advance ignition:**

the switch enables the oven advance ignition control. Configures the advance ignition (hours and minutes) of the oven with respect to the end of the recipe.

If the "oven advance ignition"  relay is enabled, it will energize for 10 seconds.

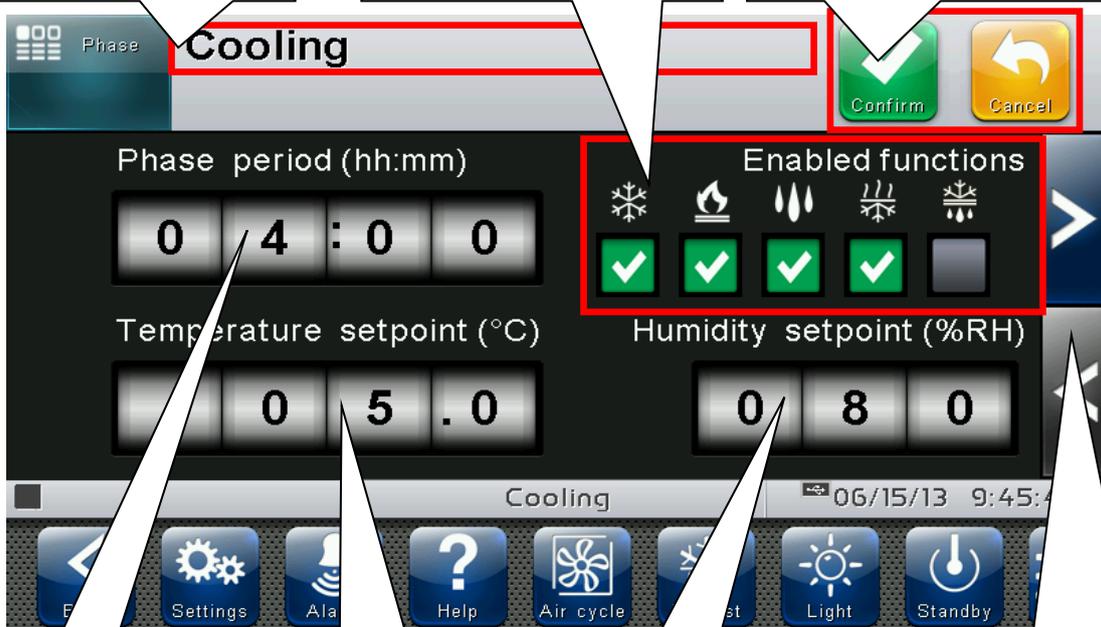
**Variable duration phase selection:**

Choose the phase which duration is automatically calculated to obtain the prepared product (the end of program) on the date and at the time set by the operator.



Press the  button in the bottom left corner of each phase to access the phase configuration page.

### Phase configuration page 1/2:



The screenshot displays the 'Cooling' phase configuration page. At the top, the phase name 'Cooling' is shown. Below it, the phase period is set to 04:00. The temperature setpoint is 05.0°C and the humidity setpoint is 080%RH. An 'Enabled functions' section shows icons for Hot, Cold, Humidify, and Dehumidify, all of which are checked. At the bottom, there are navigation buttons for Settings, Alarm, Help, Air cycle, and Standby. A 'Confirm' button and a 'Cancel' button are located in the top right corner.

The following functions can be enabled in all the phases:

- **Hot**
- **Cold**
- **Humidify**
- **Dehumidify**

In the ACCUMULATION and PRESERVATION phases, the **Defrost** function can also be enabled.

In the other phases, defrosts cannot be enabled.

Phase configuration page 2/2:

**Fans:**  
Fan start-up mode control.

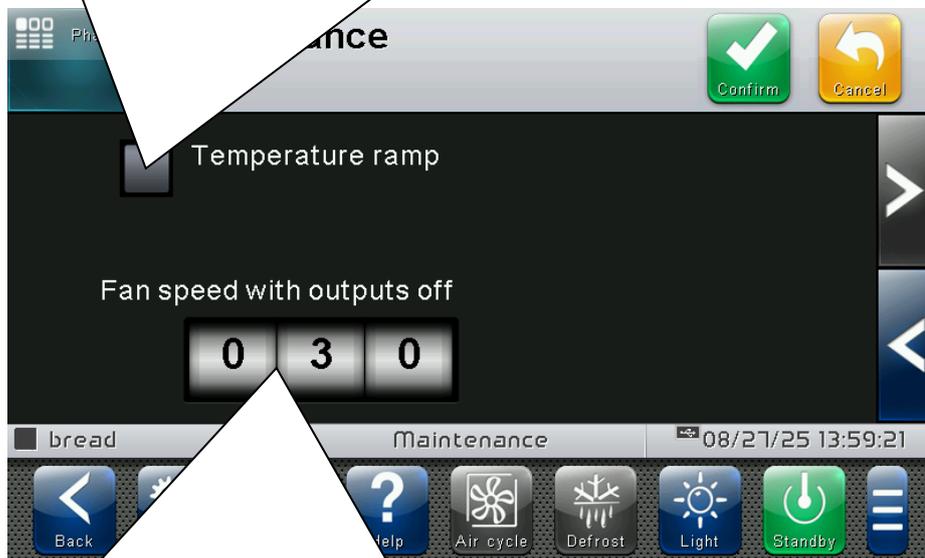
**Evaporator fan speed selection in selected phase.**  
If the 0-10V output is selected for fan speed regulation (parameter EFa=1 in the Ventilation menu present in the parameters) there is a speed selection roll instead of these two flags (20-100%)

Fans speed (%)		
1	0	0

**Temperature threshold for humidity control:**  
enables the humidity control only when the room temperature exceeds this threshold. Disable the switch to continuously control the humidity.  
The window will not be visible if the humidify and dehumidify functions are disabled during this phase.

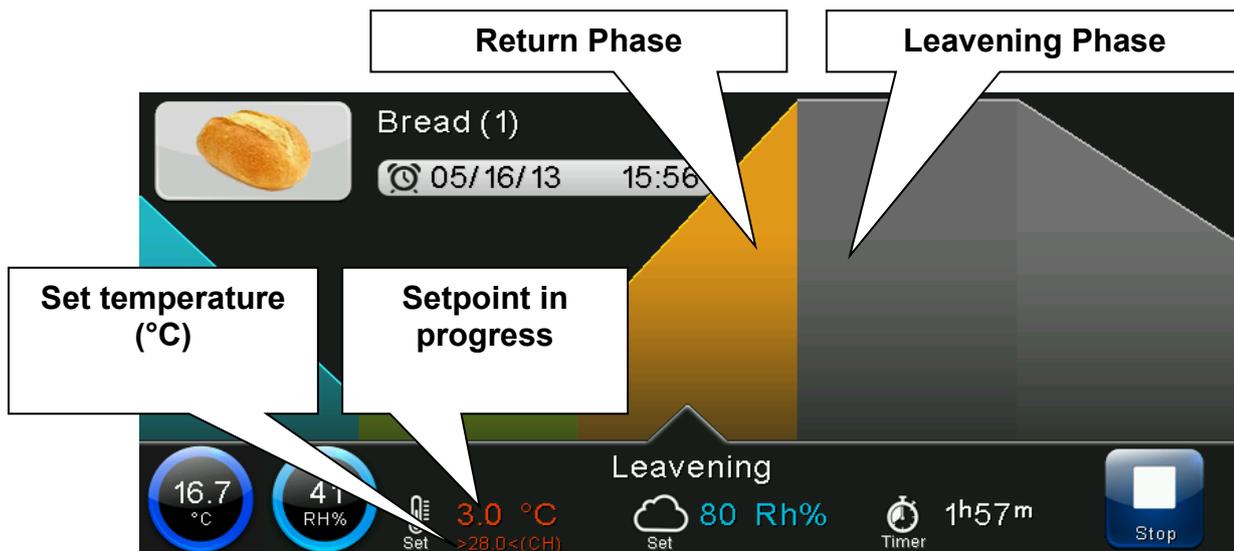
**Phase configuration page 3/3:****Temperature ramp**

Enable gradual setpoint increase function. With this function active, the phase duration time becomes the time required to reach the set temperature.

**Fan speed with outputs off**

If the 0-10V output is selected for fan speed regulation (parameter EFa=1 in the Ventilation menu present in the parameters) it is possible to set a fan speed with outputs off (parameter Fs2)

Temperature ramp function is useful to standardise the leavening process of products of different size and type. It can be used to configure a leavening phase as a 'wake up' phase with the "Varied progressive temp." option enabled and then a leavening phase that will maintain the product at the leavening temperature for as long as is required.

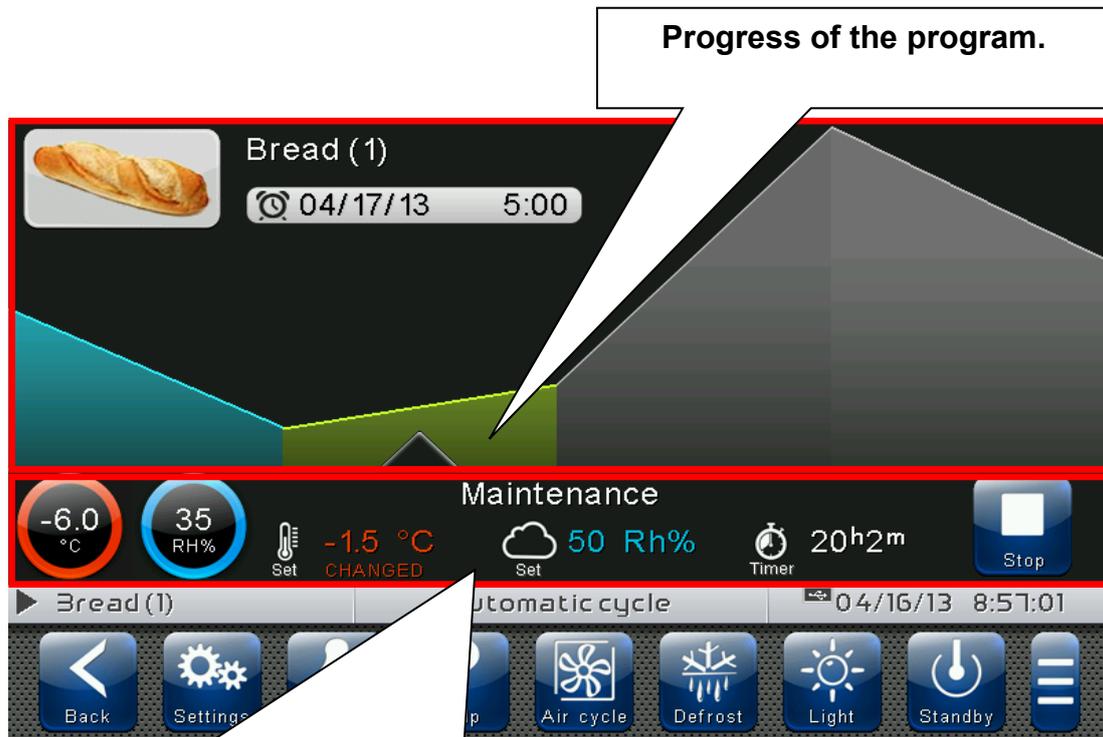


When the "Varied progressive temperature" function is enabled, the set value appears between the > < symbols under the setpoint, which changes progressively. If (CH) appears at its side, it indicates the manual change in the setpoint with respect to the setting in the program.

The "automatic cycle" is displayed automatically after a program is started, if the prepared product time is correct. At the end of the program or when the STOP button is pressed, the "Manual mode" screen is automatically displayed.

The page is split into 2 main sections:

- **Progress of the program:** this section contains the progress graph of the temperature setpoints; the phases that have already been performed and the current one are coloured, whereas the ones left are in grey. The icon, name and time and date of the prepared product are also indicated.
- **Summary bar of the current phase:** the current phase is indicated by an arrow.



**Summary bar of the current phase:**

contains the measured temperature and humidity values, the setpoints, the remaining time for the current phase to end and the STOP button to stop the program. "CHANGED" appears if the current values of the setpoints are different from those set in the program.

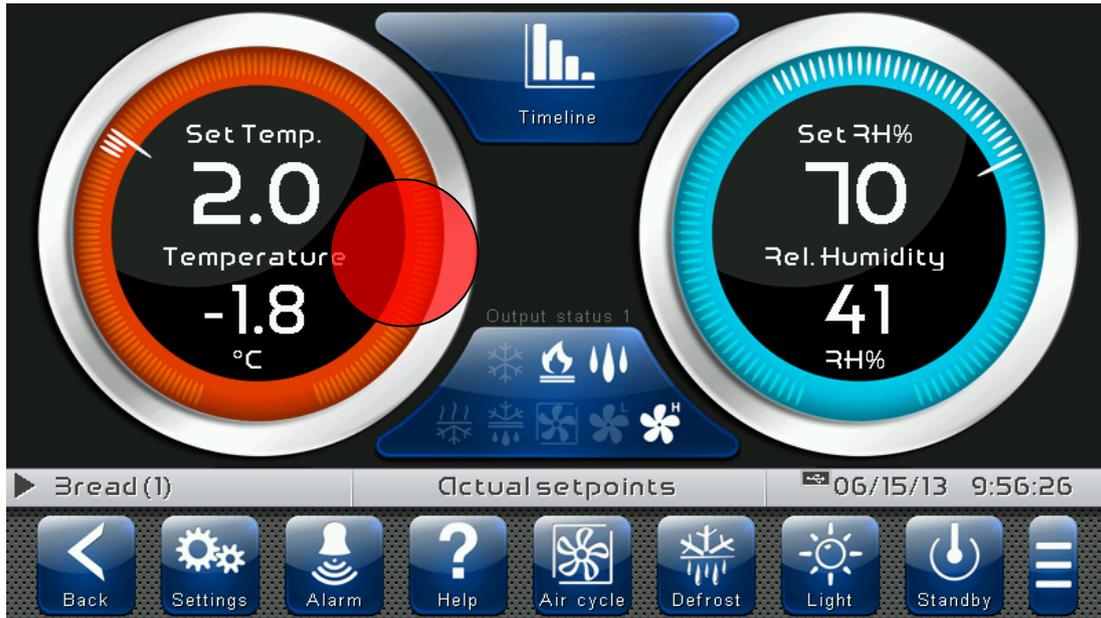


**Stop program:**

Ends the current program and returns to the "Manual status" page.

**Summary bar of the current phase:**

Tap the summary bar of the current phase to access the temperature and humidity setpoint page.



**"Edit setpoints" mode on the CURRENT PROGRAM (SETPOINT) page:**

Touch one of the adjustment dials on the screen (temperature or humidity) for more than three consecutive seconds. "CHANGED" appears in the dials if the current values of the setpoints are different from those set in the program.

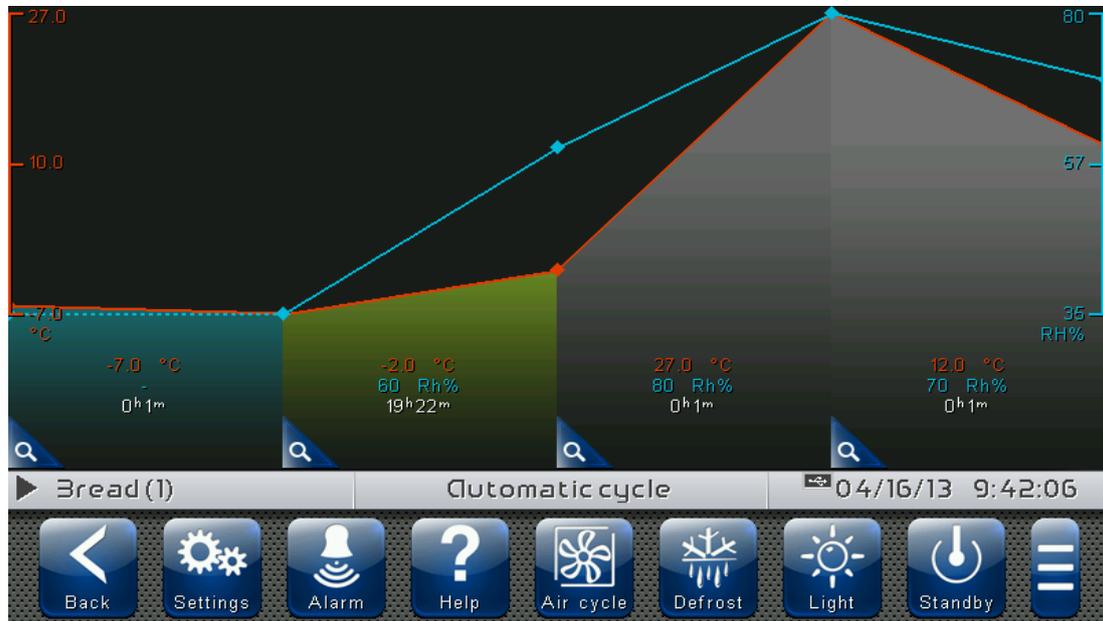
Press the "Graph" or "Back" button to return to the graph of the current program.

**"Program configuration" mode on the CURRENT PROGRAM page:**

Tap on the progress of the current program for more than three consecutive seconds.



At this point a graph with the trends of the temperature and humidity setpoints set in each phase of the program will be displayed. It's possible to view the complete configuration of a phase (and modify the setpoints, if the user is enabled), by pressing the  button.



To exit this mode, you can press the "Back" button or wait for the automatic exit after one minute of inactivity.

## CHAPTER 7: ACCESS LEVELS

### Access levels to parameters (User/ installer)

7.1

The controller has two access levels to the parameters and to the functions: “User” and “Installer”. The default setting is User that has a parameter menu that can be customised by the installer. Installer access is by logging in from the « Parameters > Password > installer login » menu and inserting the assigned password.

#### PASSWORD SET BY DEFAULT:

Installer Password : 0100

Screen for entering access password



The user logged in as installer is indicated on the Status bar with an open lock. Logout is performed automatically after one minute of inactivity or manually from the « Parameters > Password > Installer Logout » menu.



Open lock icon: User logged in as installer.

### Lock screen and User / Installer login

7.2

If the « Lock screen with password » function is activated, access as an installer or as a user is based on the entered password while the screen unlocks.

#### PASSWORDS SET BY DEFAULT:

User Password : 0200

Installer Password : 0100

Locked screen display positioned in Button bar.



By pressing the Unlock button, you reach the Password entry display to unlock the screen.



# CHAPTER 8: PARAMETERS

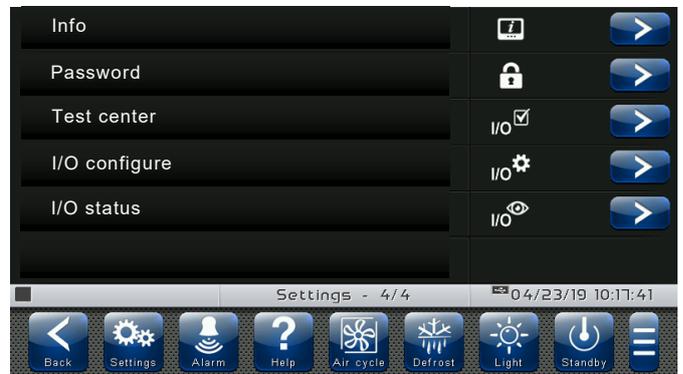
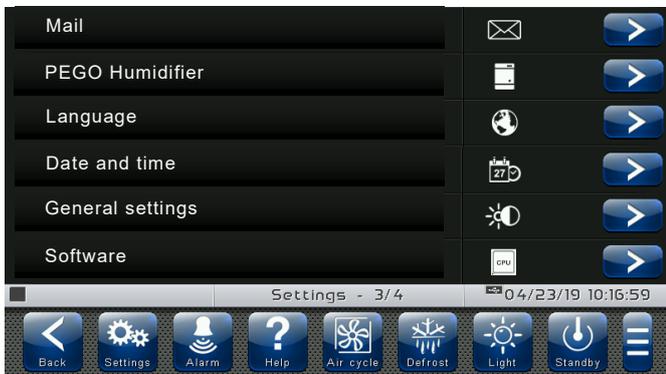
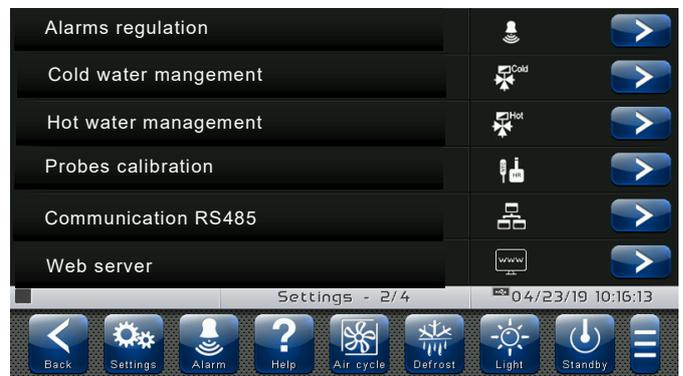
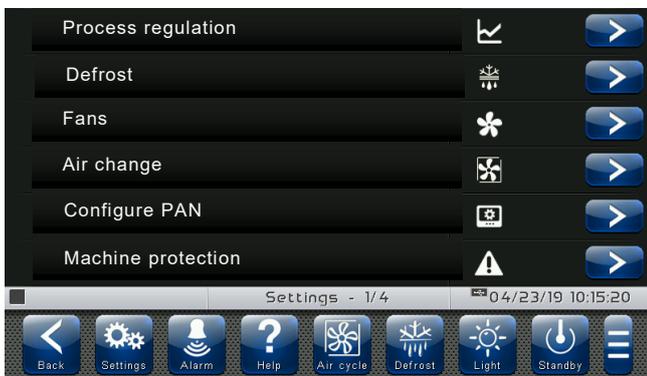
## 8.1

### Access to Parameters menu

Press the "Parameters" button in the Button Bar to access the control parameters setting menu.



**PARAMETERS:**  
Enters the parameter setting menu



Each item of the parameters menu gathers a list of parameters specific for the function described in the menu and in some cases a further submenu.

The items present in the main branch are all displayed if you are logged in as "Installer", while the items displayed under "User" depends on the configuration set in "parameters > configure user level menu" visible only if logged in as Installer.

## DESCRIPTION OF PARAMETER SETTING PAGE

8.2

Press the "Parameters" button in the Button Bar to access the controller parameters setting menu. Each sub-menu contains the name of the parameters that can be set, a brief description in the selected language and the currently set value.

Parameter name	Parameter description	Current value
d4	Defrost interval	8 hours
d5	Maximum length of defrost	20 min
d6	End of defrost setpoint	15 °C
d7	Dripping duration	1 min
dF1	Defrost times programming	1
dF2	Defrost times programming	1

Back Settings Alarm Help Air cycle Defrost Light Standby

Press the name of the parameter to be set to access the relative modification page.

Parameter name	Extended description, with indication of the range of values that the parameter can assume.	Modifiable parameter value. In the event of incorrect setting, the error is signalled.
dtC	Range (dnC+0.2, 10.0°C) HOT temperature differential with reference to main SET-POINT. It is expressed in absolute value and it defines the temperature hysteresis for the HOT referred to temperature SET-POINT.	0 2.0
		<span>Cancel</span> <span>Confirm</span>

Back Settings Alarm Help Air cycle Defrost Light Standby

Listed below is the complete list of items displayed in the “Parameters” menu:

Nome	Symbol	General description	Chapter
<b>Process regulation</b>		General process parameters (differential and neutral area settings)	8.3.1
<b>Defrosts</b>		Defrosting, dripping, evaporator presence settings	8.3.2
<b>Fans</b>		Fans activation and relative speed settings, 0-10 V outlet setting	8.3.3
<b>Air change</b>		Air change time setting (up to 6)	8.3.4
<b>Configure PAN</b>		PAN mode setting (Humidification/Dehumidification management)	8.3.5
<b>Machine protection</b>		System protection parameters: compressor management, limits for set-points, dehumidification limit time	8.3.6
<b>Alarms regulation</b>		Temperature/humidity alarms adjustment	8.3.7
<b>Cold water management</b>		Cold water system valve management parameters (cold call)	8.3.8
<b>Hot water management</b>		Hot water system valve management parameters (hot call)	8.3.9
<b>Probe calibration</b>		Correction of temperature/humidity probes, etc. values	8.3.10
<b>RS485 communication</b>		Configuration of RS485 serial communication	8.3.11
<b>Web server</b>		Web server configuration	8.3.12
<b>Mail</b>		E-mail configuration	8.3.13
<b>PEGO humidifier</b>		Enabling communication with a PEGO humidifier	8.3.14

<b>Language</b>		Control unit language setting	8.3.15
<b>Date and time</b>		Date and time settings (not accessible while a program is running)	8.3.16
<b>General settings</b>		Contrast, brightness and sound alarms setting	8.3.17
<b>Software</b>		Management of control software reset and update, device parameters export/import from USB/SD	8.3.18
<b>Info</b>		VISION TOUCH PAN device information (software version, memory occupied)	8.3.19
<b>Password</b>		Management of protection level: user/installer access, menu configuration	8.3.20
<b>Test center</b>		Digital/analogue inputs/outputs test, touchscreen interface operation test	8.3.21
<b>Configure I/O</b>		Configuration of functions associated to digital/analogue inputs/outputs	8.3.22
<b>I/O Status</b>		Verify the status of the digital and analogue inputs/outputs	8.3.23

**Process adjustment**

**8.3.1**

“Process adjustment” allows setting the differentials and the temperature and humidity neutral area of the PAN.

The “Process adjustment” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Process adjustment” item (installer login required).

**Process regulation**



PARAMETERS	MEANING	VALUES	DEFAULT
<b>dtC</b>	<b>HOT temperature differential</b> with reference to main SET-POINT. It is expressed in absolute value and it defines the temperature hysteresis for HOT referred to the temperature SET-POINT.	$(dnC+0,2) \div 10,0 \text{ } ^\circ\text{C}$	2,0 °C
<b>dtF</b>	<b>COLD temperature differential</b> with reference to main SET-POINT. It is expressed in absolute value and it defines the temperature hysteresis for COLD referred to the temperature SET-POINT.	$(dnF+0,2) \div 10,0 \text{ } ^\circ\text{C}$	2,0 °C

PARAMETERS	MEANING	VALUES	DEFAULT
<b>dnC</b>	<b>Neutral hot zone</b> Neutral temperature zone refers to the main setpoint. Hot and cold are not activated in a neutral zone. It refers to the lower part (hot) in relation to the temperature setpoint.	$0,0 \div (dtC-0,2) \text{ } ^\circ\text{C}$	0,0 °C
<b>dnF</b>	<b>Neutral cold zone</b> Neutral temperature zone refers to the main setpoint. Cold and hot are not activated in a neutral zone. It refers to the upper part (cold) in relation to the temperature setpoint.	$0,0 \div (dtF-0,2) \text{ } ^\circ\text{C}$	0,0 °C
<b>dUU</b>	<b>HUMIDIFICATION differential</b> with reference to humidity SET-POINT. It is expressed in absolute value and it defines the humidification hysteresis referred to the humidity SET-POINT.	$(dnU+1) \div 10 \text{ rH}\%$	5 rH%
<b>dUd</b>	<b>DEHUMIDIFICATION differential</b> with reference to humidity SET-POINT. It is expressed in absolute value and it defines the dehumidification hysteresis referred to the humidity SET-POINT.	$(dnd+1) \div 10 \text{ rH}\%$	5 rH%
<b>dnU</b>	<b>NEUTRAL humidification zone</b> with reference to the main SETPOINT. Humidification and dehumidification are not activated in a neutral zone. This includes the lower part (humidification) in relation to the humidity SETPOINT.	$0 \div (dUU-1) \text{ rH}\%$	0 rH%
<b>dnd</b>	<b>NEUTRAL dehumidification zone</b> with reference to the main SETPOINT. Humidification and dehumidification are not activated in a neutral zone. This includes the upper part (dehumidification) in relation to the humidity SETPOINT.	$0 \div (dUd-1) \text{ rH}\%$	0 rH%
<b>StC</b>	<b>Temperature setpoint (hot manual mode)</b> When you activate the "hot manual mode", this value is loaded into the temperature setpoint.	$LSh \div HSh \text{ } ^\circ\text{C}$	27,0 °C
<b>SUC</b>	<b>Humidity setpoint (hot manual mode)</b> When you activate the "hot manual mode", this value is loaded into the humidity setpoint.	$0 \div 100 \text{ rH}\%$	80 rH%
<b>StF</b>	<b>Temperature setpoint (cold manual mode)</b> When you activate the "cold manual mode", this value is loaded into the temperature setpoint.	$LSc \div HSc \text{ } ^\circ\text{C}$	-5,0 °C

8.3.2

Defrosts

Defrosts are managed with the parameters d4, d5, d6, d7, F5 which define their intervals, the maximum duration, the defrost end temperature, dripping and fan stopping. To switch defrost on manually, just press the “Defrost” button. Defrosting will not be activated if the defrost end temperature (d6) is set lower than the temperature detected by the evaporator probe. Defrosting will end when the defrost end temperature (d6) or the maximum defrost period (d5) is reached.

The “Defrost cycles” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Defrosting cycles” item (installer login required).

Defrost



PARAMETERS	MEANING	VALUES	DEFAULT
<b>d4</b>	<b>Defrost interval</b> (hours). If d4=ON one must set the cyclic defrosting interval.	$1 \div 24 \text{ ore}$	OFF
<b>d5</b>	<b>Maximum defrost period</b> (minutes)	$1 \div 60 \text{ min}$	10 min

PARAMETERS	MEANING	VALUES	DEFAULT
d6	<b>Defrost end Set-point.</b> Defrosting is not carried out if the temperature detected by the defrost probe is higher than the value d6 (If the probe is faulty, the frosting is timed).	-35 ÷ 45 °C	15°C
d7	<b>Dripping period (minutes)</b> At the end of defrosting, the compressor and fans remain stopped for the set time d7, the defrost icon flashes.	0 ÷ 10 min	0 min
dE	<b>Evaporator probe exclusion</b>	0 = probe absent 1 = probe present	1
d1	<b>Type of defrost</b> Cycle inversion (hot gas) or resistance. With hot gas the compressor output is also activated.	0 = resistance 1 = hot gas (defrosting outlet off during dripping) 2 = hot gas (defrosting outlet on during dripping, to manage bowl resistances)	0
d9	<b>Enabling defrosting in the cold manual mode</b>	0 = disabled 1 = enabled	1

Hot gas defrost

Set parameter d1 = 1 or 2 for managing cycle inversion defrosting.

The compressor relay and the defrosting relay are activated for the entire defrosting phase.

If d1=2, the defrosting outlet stays active during the dripping stage to manage the bowl resistances.

For the correct management of the plant, it will be the responsibility of the installer to use the defrost output, that must allow the opening of the cycle inversion electrovalve and the closing of the liquid electrovalve.

For the capillary plants (without thermostatic valve) it is sufficient to control the cycle inversion electrovalve using the defrosting relay control.

Ventilation

8.3.3

The parameters of the Ventilation menu allow to set the management of the fans in the various operating modes. The "Ventilation" menu can be accessed from the main Configuration page ("Parameters" Button). The display of this item can be set in the "Password" sub-menu => "Configure user level menu" and by selecting the "Ventilation" item (installer login required).

Fans



PARAMETERS	MEANING	VALUES	DEFAULT
F5	<b>Fan pause</b> after defrost (minutes) Allows to keep the fans stopped for a time F5 after dripping. This time starts counting from the end of dripping. If dripping is not set, at the end of defrost the fans pause immediately.	0 ÷ 10 min	0 min

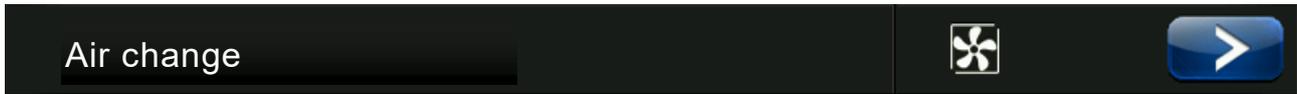
PARAMETERS	MEANING	VALUES	DEFAULT
<b>F3c</b>	<b>Fan status when cold, hot, humidification and dehumidification are stopped (Cold manual mode)</b>	0 = Fans running constantly 1 = Fans off if cold, hot, humidification and dehumidification off	1
<b>F3h</b>	<b>Fan status when cold, hot, humidification and dehumidification are stopped (Hot manual mode)</b>	0 = Fans running constantly 1 = Fans off if cold, hot, humidification and dehumidification off	0
<b>F4</b>	<b>Fan pause during defrost</b>	0 = Fans running during defrost 1 = Fans not running during defrost	1
<b>F6</b>	<b>Evaporator fans activation for air circulation.</b> The fans are activated for a time defined by F7 if they were not switched on for the time F6. If the time of activation coincides with the defrost phase, it waits for the end of defrost. The fan speed (high/low) is the same as that selected for the phase in progress.	OFF / 1 ÷ 240 min	OFF
<b>F7</b>	<b>Evaporator fans activation period for air circulation.</b> Time fans running for air circulation (F6).	0 ÷ 240 sec	10 sec
<b>F8</b>	<b>Fan speed.</b> The value of this parameter changes based on the setting made in the last phase of a program carried out.	0 = High speed 1 = Low speed	0
<b>EFa</b>	<b>Enables 0-10V output for fan speed control</b> The digital outputs high and low fan speed becomes the enable. (Them Turned on if the 0-10V output higher than 0V)	0 = disabled 1 = enabled	0
<b>Fs</b>	<b>Fan speed (percentage) when EFa=1.</b> The value of this parameter changes based on the setting made in the last phase of a program carried out.	20 ÷ 100 %	100%
<b>Fs2</b>	<b>Fan speed (percentage) with outputs off, when EFa=1.</b> Fan speed with heating/cooling/humidification/dehumidification off. The value of this parameter changes based on the setting made in the last phase of a program carried out.	20 ÷ 100 %	OFF
<b>Fst</b>	<b>FAN blocking TEMPERATURE</b> The fans do not switch on if the value of the temperature read by the evaporator probe is higher than the value of this parameter. The block is deactivated when the evaporator probe is disabled or presents an error, in hot manual mode, when recipe in progress in phases other than accumulation and preservation.	-45,0 ÷ 99,0 °C	+99,0 °C
<b>Fd</b>	<b>Differential for Fst</b>	1,0 ÷ 10,0°C	2,0 °C
<b>Fdo</b>	<b>Fan off delay after deactivating the hot output.</b> It has priority over standby, switch-port and defrost.	0 ÷ 600 sec	0 sec

## 8.3.4

### Air change

The air changes can be enabled with parameter rA. Cyclical air exchange cycles, which can be set using the rA parameter, can be performed. The duration of the air change is defined by parameter drA. During air change, hot, cold, humidity and dehumidification do not activate. It is possible, at any time, to force an air change with the "Air cycle" button.

The “Air change” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Air change” item (installer login required).



PARAMETERS	MEANING	VALUES	DEFAULT
drA	Air change period.	1 ÷ 10 min	6
rA	Air change interval	00:01 ÷ 24:00	OFF

Configure PAN

8.3.5

“Configure PAN” allows to select which functions of the PAN control unit are enabled; it particularly allows the humidity and heat control to be enabled/disabled.

The “Configure PAN” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Configure PAN” item (installer login required).



PARAMETERS	MEANING	VALUES	DEFAULT
dEU	<b>Dehumidification mode selection.</b> Separate dehumidification calls hot and cold only for temperature.	0 = cooling 1 = heating 2 = separate dehumidification 3 = separate dehumidification and active when cold output is off	0
EnU	<b>Humidification enabling</b>	0 = disabled 1 = enabled	1
End	<b>Dehumidification enabling</b>	0 = disabled 1 = enabled	1
EnH	<b>Hot enabling</b>	0 = hot disabled 1 = hot enabled	1
EnC	<b>Cold enabling</b>	0 = cold disabled 1 = cold enabled	1
Hr	<b>Humidity management</b>	0 = humidity management disabled. The humidity probe can be disconnected without error on the display. 1 = humidity management enabled.	1
HmV	<b>Minimum value of the humidifier regulation analogue output.</b>	0 ÷ +99 Rh%	20 Rh%

“Machine protection” contains the safety parameters to manage the system. One can set the minimum interval between compressor activations, the dehumidification limit time and which action must be performed in the event the dehumidification limit time Timeout intervenes. The “Machine protection” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Machine protection” item (installer login required).

#### Machine protection



PARAMETERS	MEANING	VALUES	DEFAULT
C1	<b>Minimum time between shutdown and subsequent switch-on of compressor.</b> It also stops the fans if they are not active for other functions.	0...15 min	0
LSh	<b>Minimum value that can be attributed to the hot manual mode temperature setpoint</b>	-45,0 ÷ HSh °C	-45,0°C
HSh	<b>Maximum value that can be attributed to the hot manual mode temperature setpoint</b>	LSh ÷ +99,0 °C	+99,0°C
LSc	<b>Minimum value that can be attributed to the cold manual mode temperature setpoint</b>	-45,0 ÷ HSc °C	-45,0°C
HSc	<b>Maximum value that can be attributed to the cold manual mode temperature setpoint</b>	LSc ÷ +99,0 °C	+99,0°C
btF	<b>Temperature differential</b> with reference to Set-point for <b>COLD BLOCK</b> . This is the SET-btF limit below which the cold and dehumidification call relays are disabled. The block function remains active until the set-point is reached.	OFF / 1 ÷ 20 °C	OFF
btC	<b>Temperature differential</b> with reference to Set-point for <b>HOT BLOCK</b> . This is the SET-btF limit below which the hot, humidification and dehumidification call relays are disabled. The block function remains active until the set-point is reached.	OFF / 1 ÷ 20 °C	OFF
dEt	<b>DEHUMIDIFICATION time limit.</b> The Ed alarm is triggered if the dehumidification request is not met (SET humidity reached) within the time (dEt). The count starts at each new dehumidification demand.	OFF / 1 ÷ 240 min	OFF
Lt1	<b>Minimum setpoint (accumulation)</b>	-45,0 ÷ Ht1 °C	-20,0 °C
Ht1	<b>Maximum setpoint (accumulation)</b>	Lt1 ÷ 99,0 °C	0,0 °C
Lt2	<b>Minimum setpoint (preservation)</b>	-45,0 ÷ Ht2 °C	-15,0 °C
Ht2	<b>Maximum setpoint (preservation)</b>	Lt2 ÷ 99,0 °C	20,0 °C
Lt3	<b>Minimum setpoint (leavening)</b>	-45,0 ÷ Ht3 °C	10,0 °C
Ht3	<b>Maximum setpoint (leavening)</b>	Lt3 ÷ 99,0 °C	99,0 °C
Lt4	<b>Minimum setpoint (rest)</b>	-45,0 ÷ Ht4 °C	0,0 °C
Ht4	<b>Maximum setpoint (rest)</b>	Lt4 ÷ 99,0 °C	99,0 °C
LFs	<b>Minimum Fan Speed.</b> Minimum value of the 0-10V output that ensures correct fan start-up.	20 ÷ 100%	20 %
StA	<b>Door Resistance Setpoint</b> Door resistance temperature set. If the room temperature drops below the StA value, the digital output configured as Door resistance is activated (fixed differential 2°C).	-45,0 ÷ 99,0 °C	0,0 °C

## Alarm regulation

8.3.7

“Alarms adjustment” allows setting the minimum and maximum temperature/humidity and the delay between the alarms signal and display.

The “Alarms adjustment” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Alarms adjustment” item (installer login required).

## Alarms regulation



PARAMETERS	MEANING		VALUES	DEFAULT
<b>At1</b>	<b>Minimum temperature alarm (absolute or relative)</b> Allows defining the minimum ambient temperature value. Below the value At1, the alarm status EtL will be signaled and an internal buzzer indicates the existence of the fault. The alarm is signaled after the time Ald.		Absolute (°C) -45 ÷ (At2-1) Relative (°C) -40 ÷ 0	Absolute -45°C
<b>At2</b>	<b>Maximum temperature alarm (absolute or relative)</b> Allows defining the maximum ambient temperature value. Above the value At2, the alarm status EtH will be signaled and an internal buzzer indicates the existence of the fault. The alarm is signaled after the time Ald.		Absolute (°C) (At1+1) ÷ 99 Relative (°C) 0 ÷ 40	Absolute +99°C
<b>AU1</b>	<b>Minimum humidity alarm (absolute or relative).</b> Allows defining the minimum humidity value of the environment to be humidified. Below the value AU1, the alarm status EuL will be signaled with the buzzer active. The alarm is signaled after the time Ald.		Absolute (Rh%) 0 ÷ (AU2-1) Relative (Rh%) -40 ÷ 0	Absolute 0 Rh%
<b>AU2</b>	<b>Maximum humidity alarm (absolute or relative)</b> Allows defining the maximum humidity value of the environment to be humidified. Above the value AU2, the alarm status EuH will be signaled with the buzzer active. The alarm is signaled after the time Ald.		Absolute (Rh%) (AU1+1) ÷ 100 Relative (Rh%) 0 ÷ 40	Absolute 100 Rh%
<b>Ald</b>	<b>Delay time for Minimum or maximum temperature or humidity alarm signaling and display.</b>		0 ÷ 240 min	240 min
<b>AtE</b>	<b>Enabling temperature/humidity alarm</b>	0=always enabled 1=disabled in stand-by 2=disabled if door switch active 3=disabled if stand-by or door switch active.		0
<b>PD1</b>	<b>Pump-Down alarm delay.</b> If the low-pressure switch does not intervene within PD1 sec from the deactivation of the liquid valve, then the pump-down alarm intervenes which deactivates the compressor.		0 ÷ 300 sec	180 sec
<b>PD2</b>	<b>Low pressure alarm delay (pump-down).</b> If the low-pressure switch intervenes during the cold call, after PD2 sec the low-pressure alarm intervenes which deactivates the liquid valve and the compressor.		0 ÷ 300 sec	10 sec
<b>PD3</b>	<b>Low pressure alarm delay in start-up (pump-down).</b> If the low-pressure switch is not deactivated within PD3 sec from the activation of the liquid valve, then the low pressure alarm at start-up intervenes which deactivates the liquid valve and disables cold operation.		0 ÷ 300 sec	30 sec

8.3.8

Cold water management

“Cold water management” allows controlling a cooling system through proportional control (0-10 V analogue output). This function can only be activated if the cold-water temperature probe is connected. The “Cold water management” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Cold water management” item (installer login required).

Cold water management



PARAMETERS	MEANING	VALUES	DEFAULT
ECv	Cold water management enabling	0 = disabled 1 = enabled 2 = enabled (ref. ambient probe)	0
SeC	Cold water temperature set-point	-45.0 ÷ +99.0 °C	0.0 °C
rOC	Cold water temperature differential	1 ÷ 20 °C	5 °C
tdC	<b>Delay at response.</b> It's the time that the analogue output takes to vary from 0V to 10V.	1 ÷ 10 min	10 min

8.3.9

Hot water management

“Hot water management” allows controlling a heating system through proportional control (0-10 V analogue output). This function can only be activated if the hot water temperature probe is connected. The “Hot water management” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Hot water management” item (installer login required).

Hot water management



PARAMETERS	MEANING	VALUES	DEFAULT
EHv	Hot water management enabling	0 = disabled 1 = enabled 2 = enabled (ref. ambient probe)	0
SeH	Hot water temperature set-point	-45.0 ÷ +99.0 °C	0.0 °C
rOH	Hot water temperature differential	1 ÷ 20 °C	5 °C
tdH	<b>Delay at response.</b> It's the time that the analogue output takes to vary from 0V to 10V.	1 ÷ 10 min	10 min

Probe calibration

8.3.10

The "Probes calibration" menu allows to correct the value measured by the room/outside temperature and humidity probes and to correct the value measured by the evaporator probe. The menu can be accessed from the main Configuration page ("Parameters" Button). The display of this item can be set in the "Password" sub-menu => "Configure user level menu" and by selecting the "Probes calibration" item (installer login required).

Probe calibration



PARAMETERS	MEANING	VALUES	DEFAULT
Cat	Ambient probe value correction	-10,0 ÷ +10,0 °C	0,0
CaU	Humidity probe value correction	-20 ÷ +20 Rh%	0
CaE	Evaporator probe value correction	-10,0 ÷ +10,0 °C	0,0
CaC	Cold water probe value correction	-10...+10 °C	0
CaH	Hot water probe value correction	-10...+10 °C	0

RS485 communication

8.3.11

The "RS485 communication" menu allows to set the serial communication configuration. The menu can be accessed from the main Configuration page ("Parameters" Button). The display of this item can be set in the "Password" sub-menu => "Configure user level menu" and by selecting the "RS485 communication" item (installer login required).

In the event of **Ser=0** (Telenet), the Vision Touch responds as a TWMT instrument (**room temperature probe measurement**) to address Ad and as a TWMUR instrument (**room humidity probe measurement**) to address Ad+1.

RS485 communication



PARAMETERS	MEANING	VALUES	DEFAULT
Ad	Network address for connection to TeleNET or Modbus supervision system.	0 ÷ 31 (Ser=0) 1 ÷ 247 (Ser=1)	1
Ser	RS-485 communication protocol 0 = TeleNET protocol 1 = Modbus-RTU protocol	0 ÷ 1	0
Bdr	Modbus baudrate 0 = 300 baud      3 = 2400 baud      6 = 14400 baud 1 = 600 baud      4 = 4800 baud      7 = 19200 baud 2 = 1200 baud    5 = 9600 baud      8 = 38400 baud	0 ÷ 10	5
Prt	Modbus parity control configuration. 0 = none parity 1 = even parity 2 = odd parity	0 ÷ 2	0

Web server

8.3.12

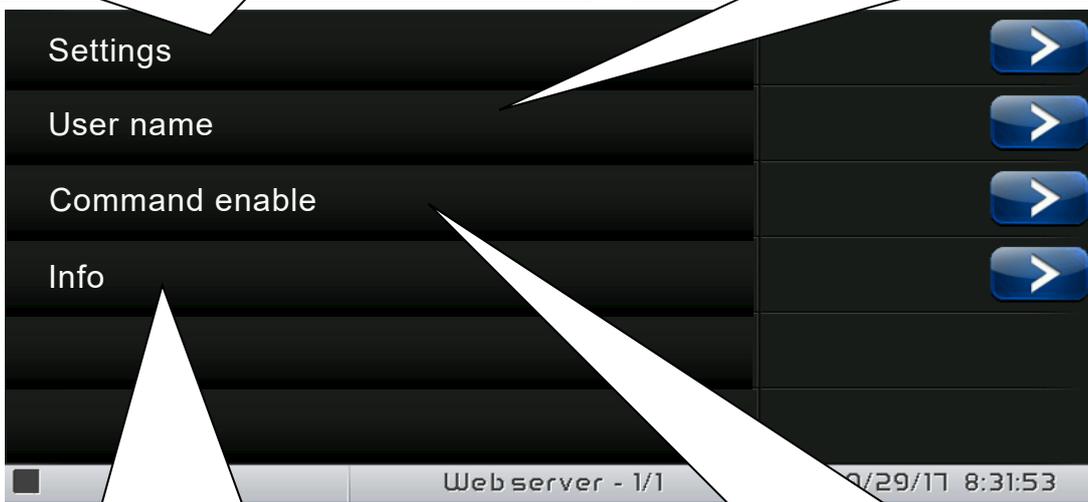
The "Web server" menu allows setting the Web server configuration. This menu is accessible from the Main Configuration page ("Parameters" Button). The visibility of this item can be set in the submenu "Password" => "Configure user level menu" and by selecting the "Web server" item (installer login required).

Web server



Basic configuration of Web server (IP, Netmask, Gateway, DHCP).

Setting up your username for login from the web.



"Info" checks the current Web server setting (IP, MAC, etc.).

Enable the change of parameters / controls from web.

– Settings page

Enable / disable DHCP

Changes are applied when the "Confirm" button is pressed.



Configure IP address



Configure Netmask



Configure Gateway



Configure Port



- **DHCP: enable / disable** configuration request to the DHCP server. If enabled, the IP address associated with Vision Touch is assigned by the DHCP server (if it is present on the local network). If no assignment is made, the touch maintains the default configuration:

**IP:** 169.254.254.1                      **Gateway:** 0.0.0.0  
**Netmask:** 255.255.0.0                **Port:** 80

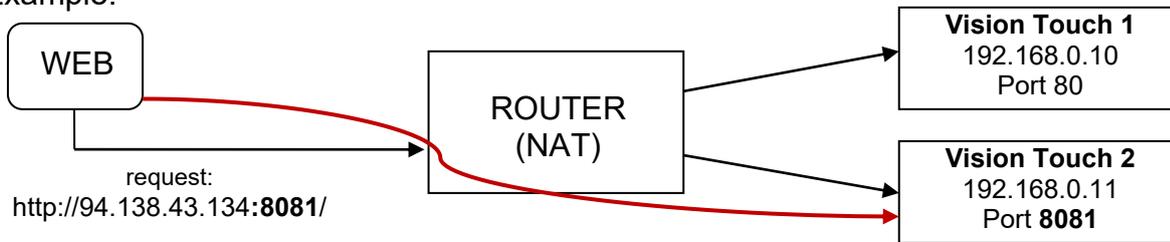
To check the configuration assigned by DHCP, see the "Info" page in the "Web server" menu.

- **Configure IP address / Netmask / Gateway:** allow the setting of IP address / Netmask / Gateway if DHCP is not used (for example in static IP setting).

- **Configure Port:** allows you to change the access port of the Web Server. In case of connection of multiple Vision Touch on the same local network, set the NAT of the router by associating local IP/port with public IP/port.

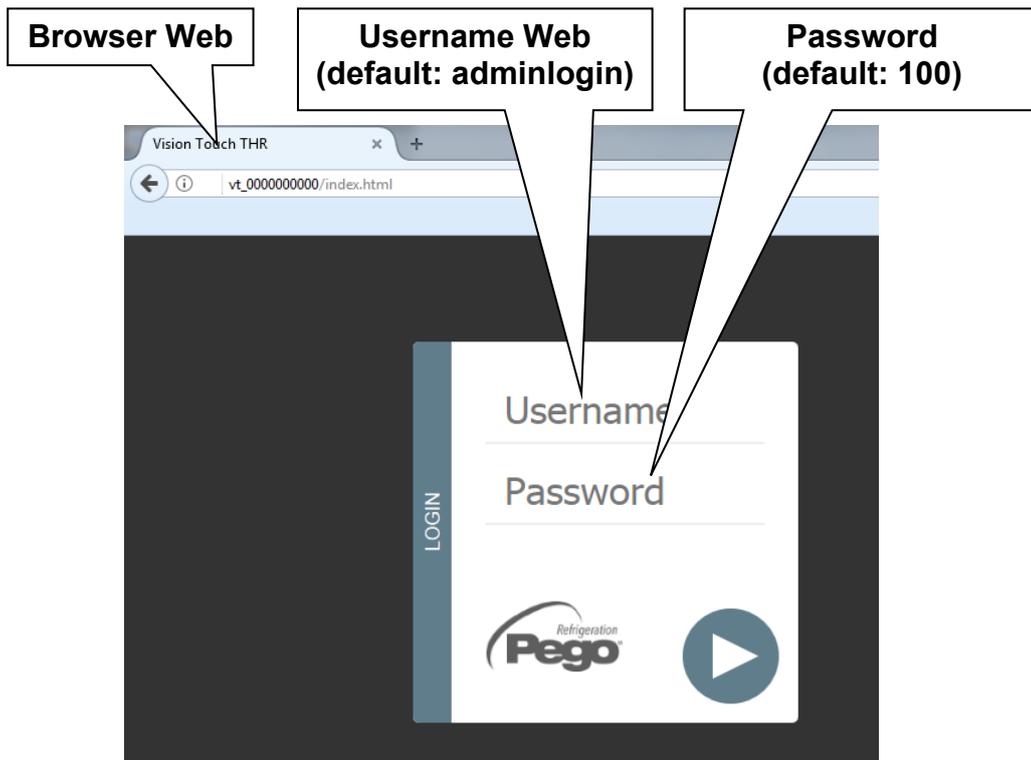
Warning: changing the port requires restarting the Vision Touch.

Example:



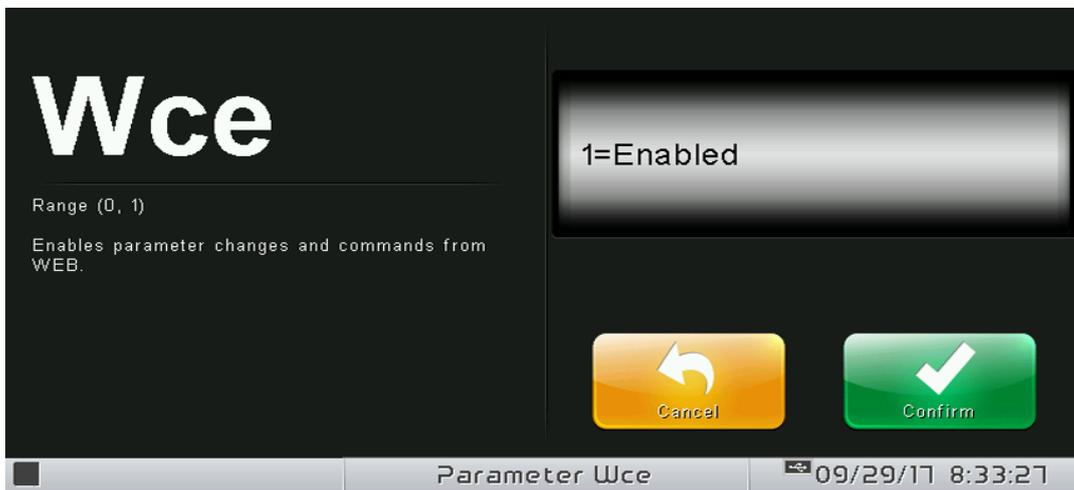
The page "User name" allows configuring the Username to be used during login on the Vision touch Web page (the password coincides with the Vision Touch Installer password).





- Command enable page

The Wce parameter allows enabling or disabling commands and edits parameters from the Web page, regardless of the type of user (user or admin) that accesses the Web page.



- Info page

The "Info Page" allows checking the current Web configuration of the Vision Touch PAN.



**DHCP:** DHCP assignment status.

**Host:** name used in the web browser address bar (linked to the serial number).

**IP / Netmask / Gateway:** current configuration (set either locally or by DHCP).

**MAC:** unique physical address associated with Vision Touch.

**User name:** Web user name.

Mail

8.3.13

The “Mail” menu allows setting the alarm mail configuration. The menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Mail” item (installer login required).



PARAMETERS	MEANING	VALUES	DEFAULT
<b>Enable</b>	Enable sending of mails in case of alarm. If configured as “Test Mail” it sends a test mail to all recipients.	0 = Disabled 1 = Enabled 2 = Test mail	0
<b>Sender</b>	Sender e-mail configuration (e.g. xxxxx@yyy.zz). Maximum length: 32 characters.	Text	
<b>Password</b>	Sender e-mail password configuration	Text	

## VISION TOUCH PAN

PARAMETERS	MEANING	VALUES	DEFAULT
<b>SSL</b>	Enable secure communication with the mail server	0 = Disabled 1 = Enabled	1
<b>Port</b>	Mail port number (e.g. port 465 for SSL connection, port 25 for non-SSL connection.)	0 ... 999	465
<b>Server mail</b>	Outgoing mail server (e.g. smtp.xxx.zz)	Text	
<b>Subject mail</b>	Subject of mails (e.g. Cold room 1)	Text	
<b>Receiver 1</b> <b>Receiver 2</b> <b>Receiver 3</b>	E-mail receivers (xxxxx@yyy.zz). Maximum length: 32 characters. The alarm e-mail will be sent to all receivers.	Text	

The Vision Touch sends an e-mail when an alarm occurs and when the alarm returns. The email contains the following information:

- Alarm code and description.
- Date and time when the alarm started.
- Duration of the alarm (in case of alarm end email).

### 8.3.14

## PEGO humidifier

### PEGO humidifier

CONNECTION	
PIN TERMINALS (100NMASTER)	PIN TERMINALS (EASYSYSTEM)
37	32
38	31

**Enabling** Enables communication with the PEGO humidifier. Verify that jumper J2 inside the 100N MASTER is open and that the humidifier has address Ad = 1.

**Status**

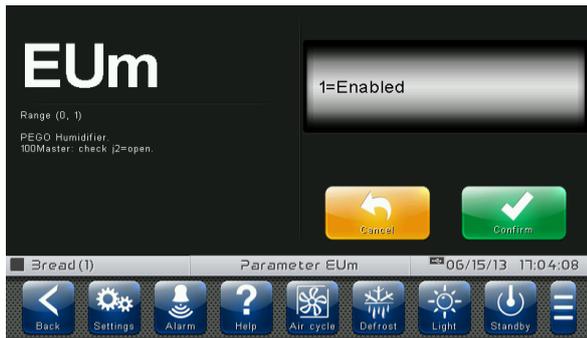
**Parameters**

Bread (1) PEGO Humid 06/15/13 16:59:53

Access to the read/edit functions of the main parameters

**Summary page of the status of inputs/outputs of the humidifier.**  
The humidifier can be set to standby or the water can be forced to drain on this page.

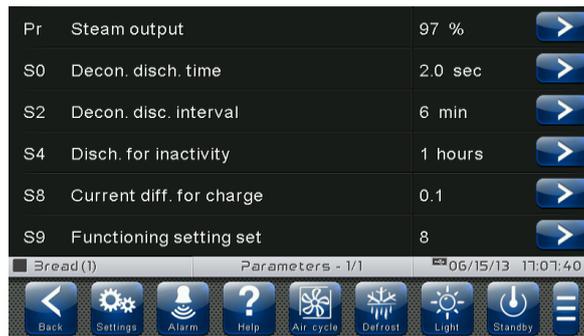
ENABLING



STATUS



PARAMETERS

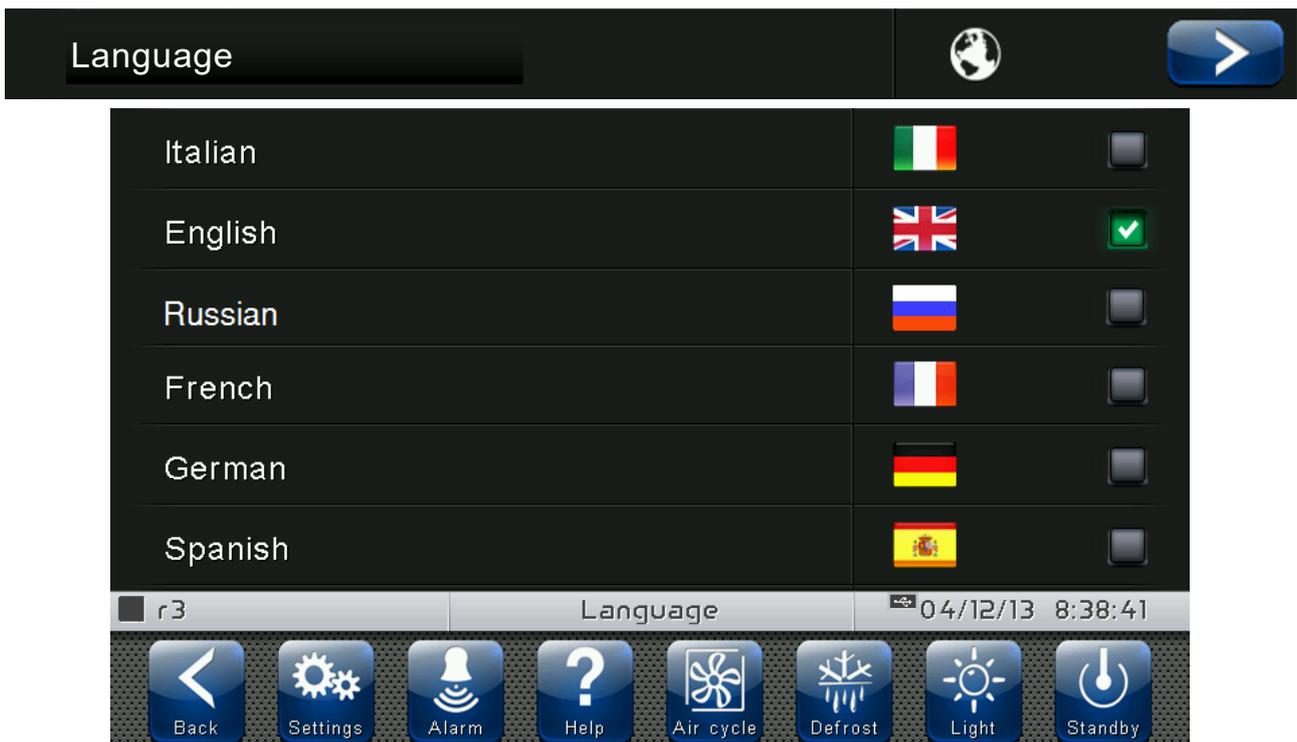


Language

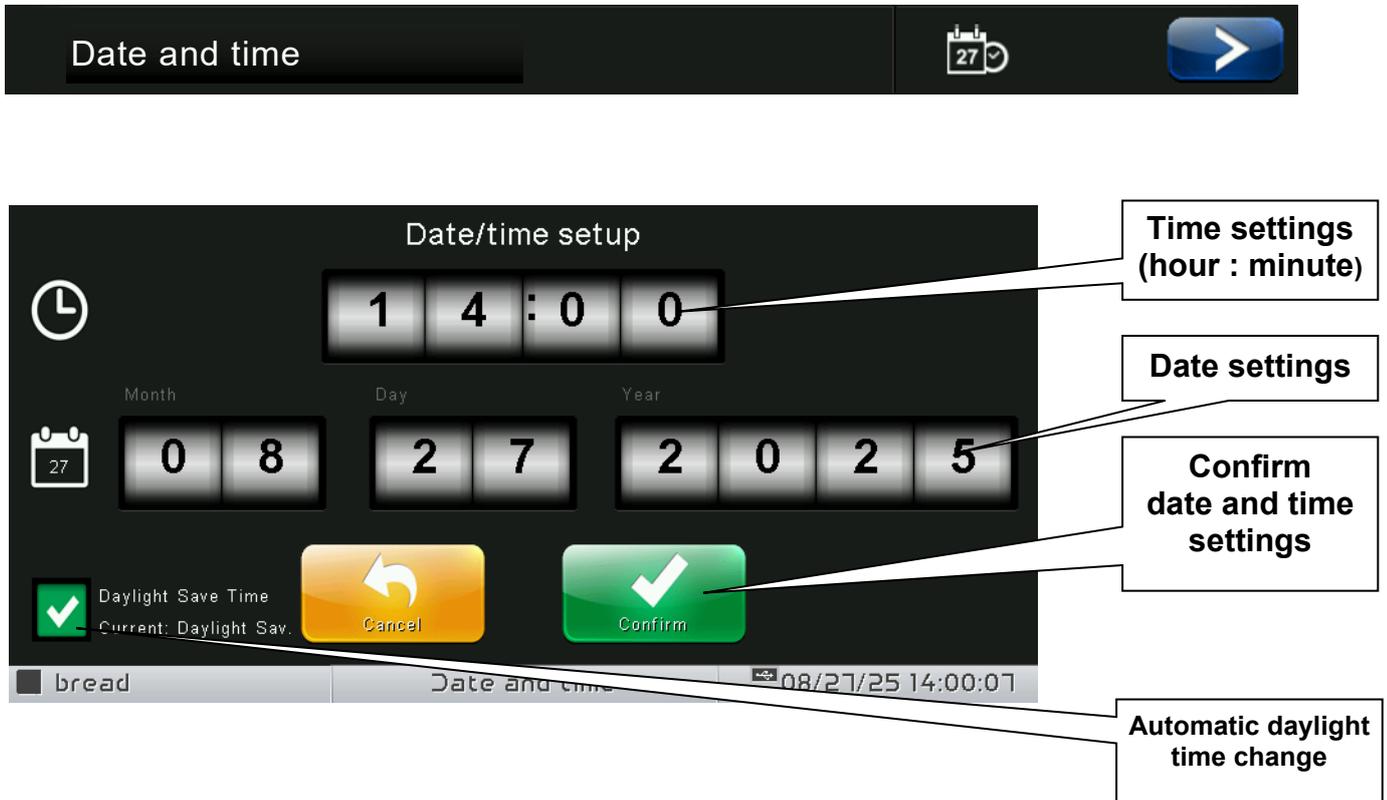
8.3.15

The “Language” menu allows to change the control unit language. The menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Language” item (installer login required).

The available languages are: italian, english, russian, french, german, spanish, flemish, slovak, finnish, polish.



The “Date and time” menu allows to change the clock settings. **One cannot access this page while a program is running.** The “Date and time” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Date and time” item (installer login required).



If automatic daylight time change is enabled, the control automatically sets the date and time considering summer / winter time with the European standard (change on last sunday of march and october).

Also, you can read if the actual time is standard or daylight time.

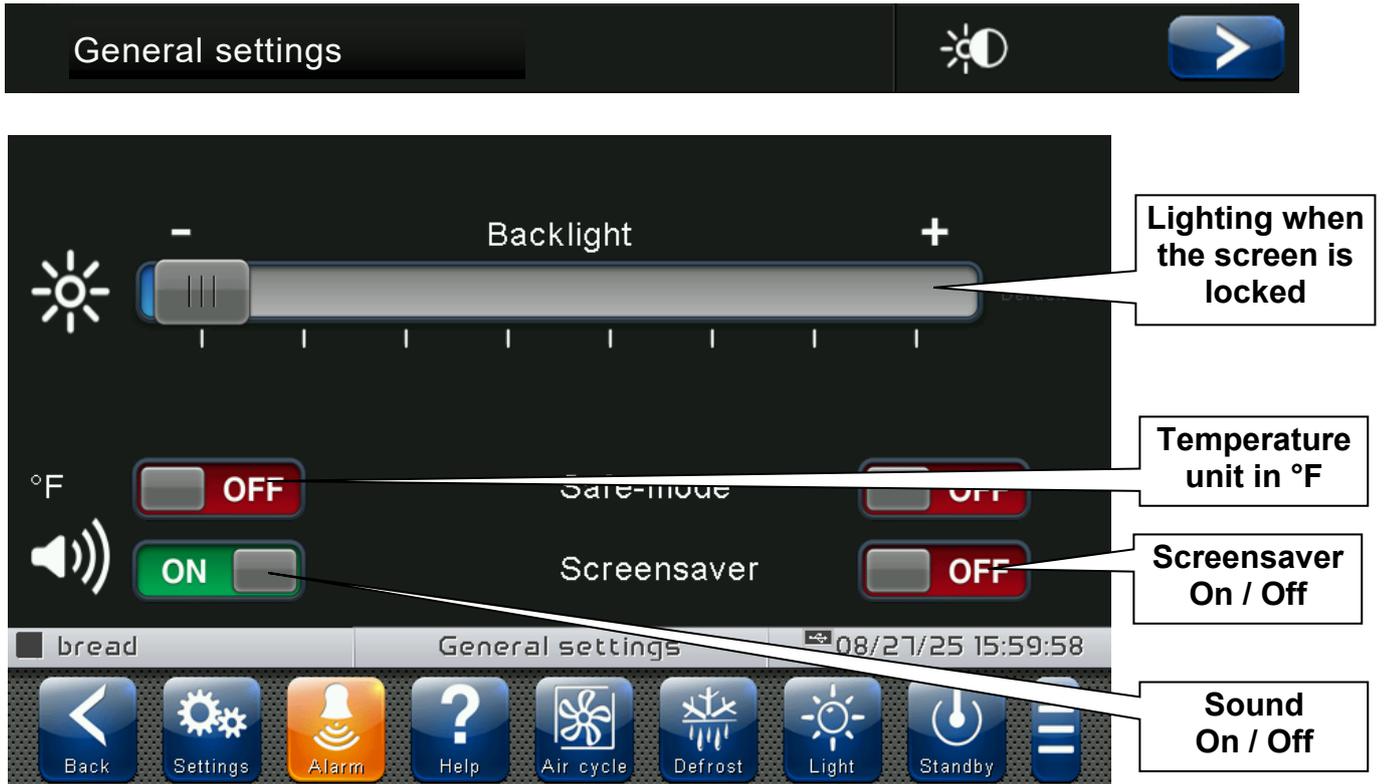
**Important note:** if a program is running during daylight time change, the phase across the time change has a longer/shorter duration. Please consider it when you start the program.

## General settings

8.3.17

The “General settings” menu allows to change the screen contrast, the brightness when the screen is locked, the activation of the sound alarms and the activation of the screensaver. “General settings” can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “General settings” item (installer login required).

We recommend setting the brightness to the minimum to maximize the display's lifetime.



The "Software" menu allows to perform maintenance on the device software. The menu can be accessed from the main Configuration page ("Parameters" Button). The display of this item can be set in the "Password" sub-menu => "Configure user level menu" and by selecting the "Software" item (installer login required).

**Restore all default settings.**  
The execution of the program in progress is interrupted but the stored programs are not deleted.

**Clear program history memory.**

**Repairing errors in the internal memory of the control unit.**

**Exporting/importing the parameters configuration from USB / SD.**

**Software updating procedure:**

- Copy the update file "VT\_PAN\_#\_#\_#\_#.pego" (the symbols # represent the progress of the version) to an empty USB pen drive. Only the update file must be present in the pen drive.
- Insert the USB pen drive in the USB1 port of the controller (the symbol  of USB inserted and acknowledged appears on the status bar).
- Press the "Update software" button.
- The device proceeds to update autonomously, performing the following steps (the operation requires a few minutes): it exports the programs and configurations (if applicable) > it deletes the internal memory and installs new software > it restores the programs and configurations (if applicable) > it restarts the VISION TOUCH PAN.

**ATTENTION:** during the entire installation phase the controller **must be kept powered and the USB key must be left inserted**. Failure to comply with this requirement could entail PEGO S.r.l. having to restore the software.

The update finishes as soon as the controller goes back to the "HOME1" screen; at this point you can remove the USB key and resume normal use.

The new Software version can be checked in the "Parameters" > "Info" menu under "Application Version".

## Info

8.3.19

The "Info" menu contains information relating to the software version installed and other information about the device. The menu can be accessed from the main Configuration page ("Parameters" Button).

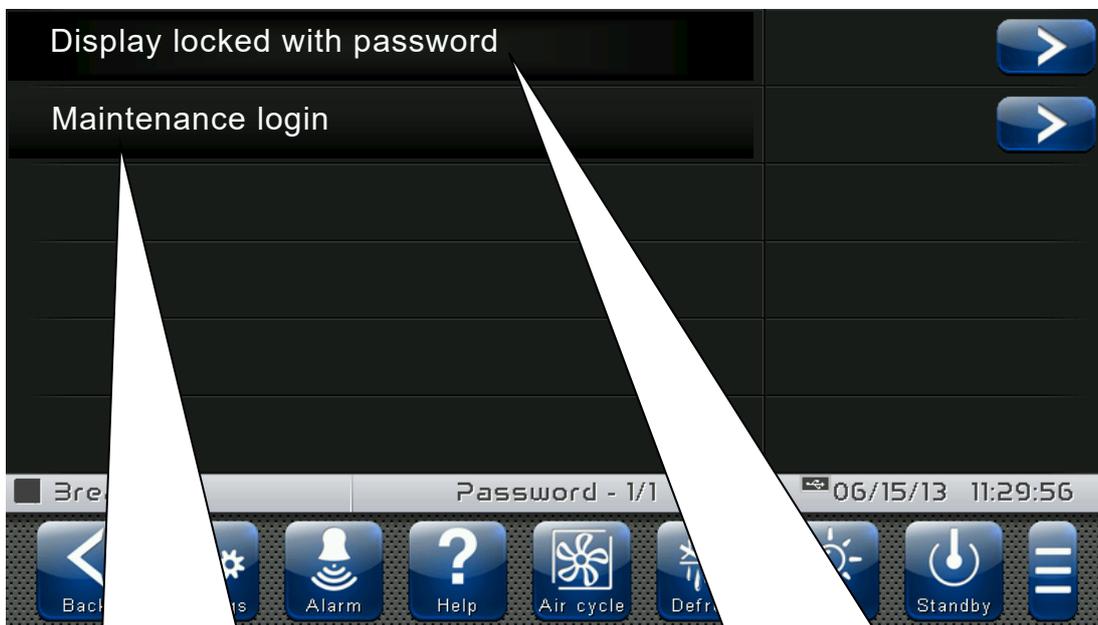


The “Password” menu allows to manage the device protection level, giving the user permission to access only certain functions and parameters. The menu can be accessed from the main Configuration page (“Parameters” Button).



The “Password” menu has a different appearance for the user and for the installer: the installer can select which items of the parameters menu are displayed to the user and which actions can be performed by the latter.

- User Password Page



**Password entry  
to access the installer level**  
(Default password: 0100)

**User screen lock password setting**

- Installer Password Page

**Exit from installer mode**

**Selection of configuration menu elements visible by the user**

**Installer password setting**

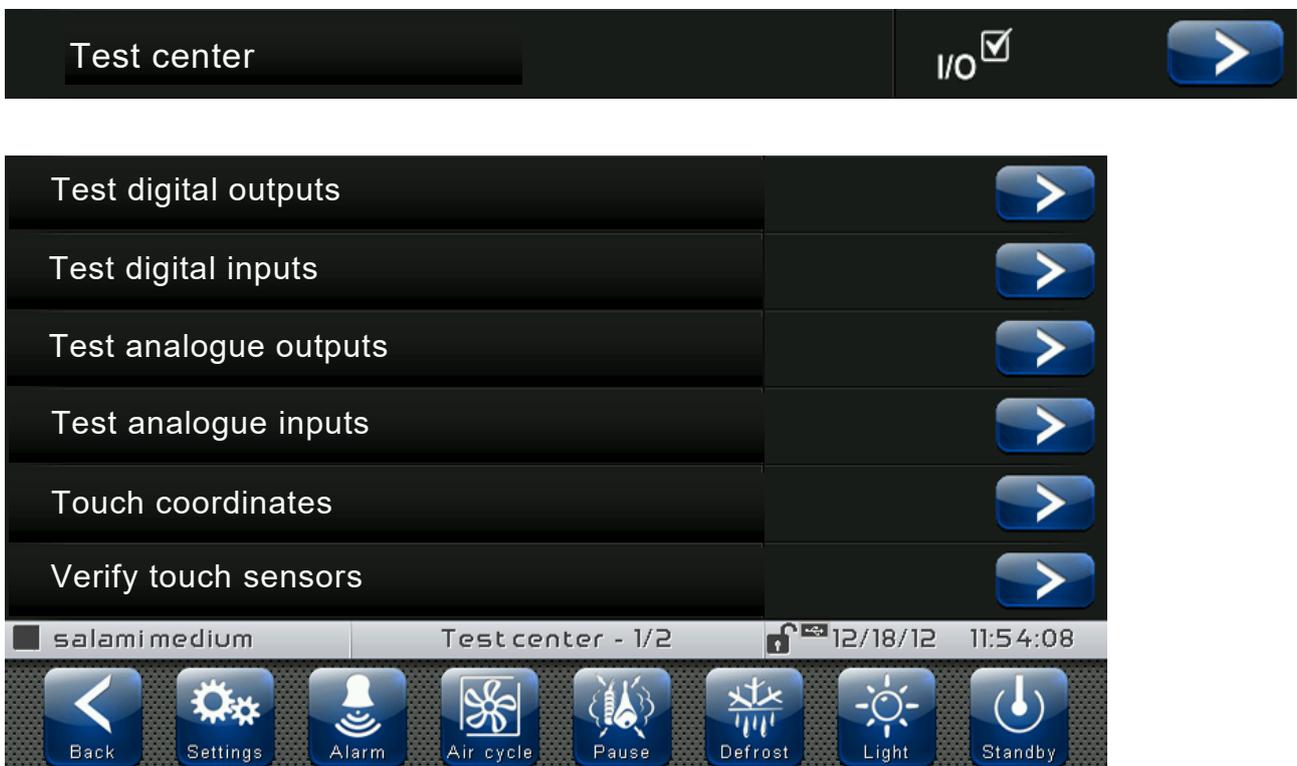
**Selection of actions that can be performed by the user:**

- Modify setpoint
- Modify recipe
- Recipe manager
- Air change function
- Defrost function
- Alarms acknowledge
- Modify product ready time

The “Test centre” allows to verify the proper operation of the inputs/outputs of the 100N MASTER3 connected to the VISION TOUCH PAN. One can also verify the operation of the touchscreen sensors.

**The “Test centre” function is reserved to expert users.  
Pego S.r.l. disclaims any liability for damage to the system  
due to improper use of this function.**

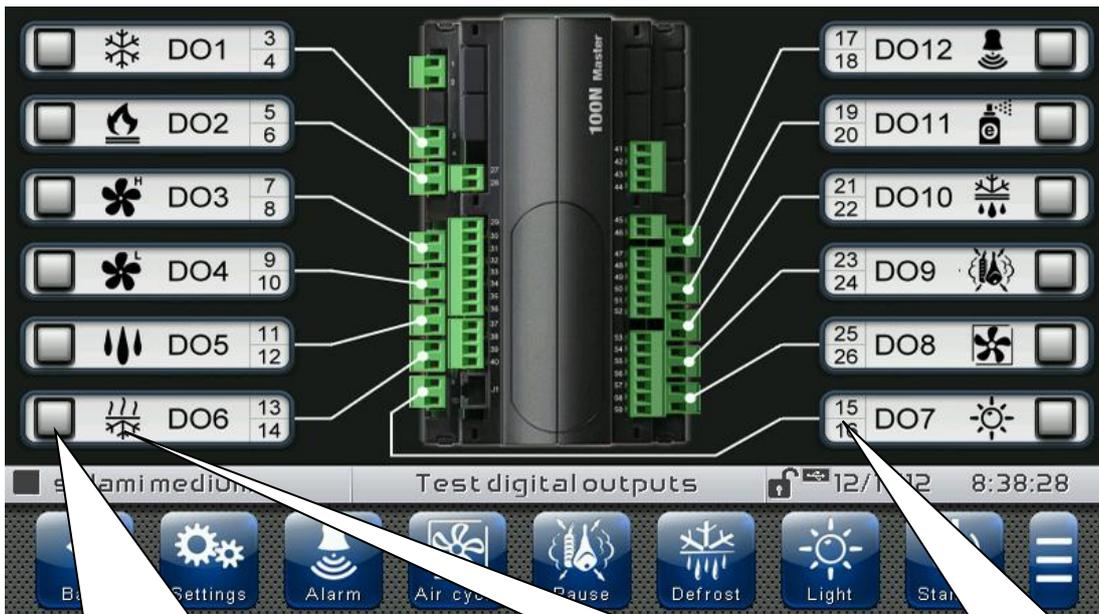
The “Test centre” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Test centre” item (installer login required).



#### - Digital outputs test

The “Digital outputs test” allows to manually force the digital outputs of the connected 100N MASTER3. Access to this menu put the control unit in “Stand by”: the time progress of an ongoing program is not altered but all output functions are disabled.

The function associated to each digital output can be set in “Parameters” => “Configure I/O” => “Digital outputs”.



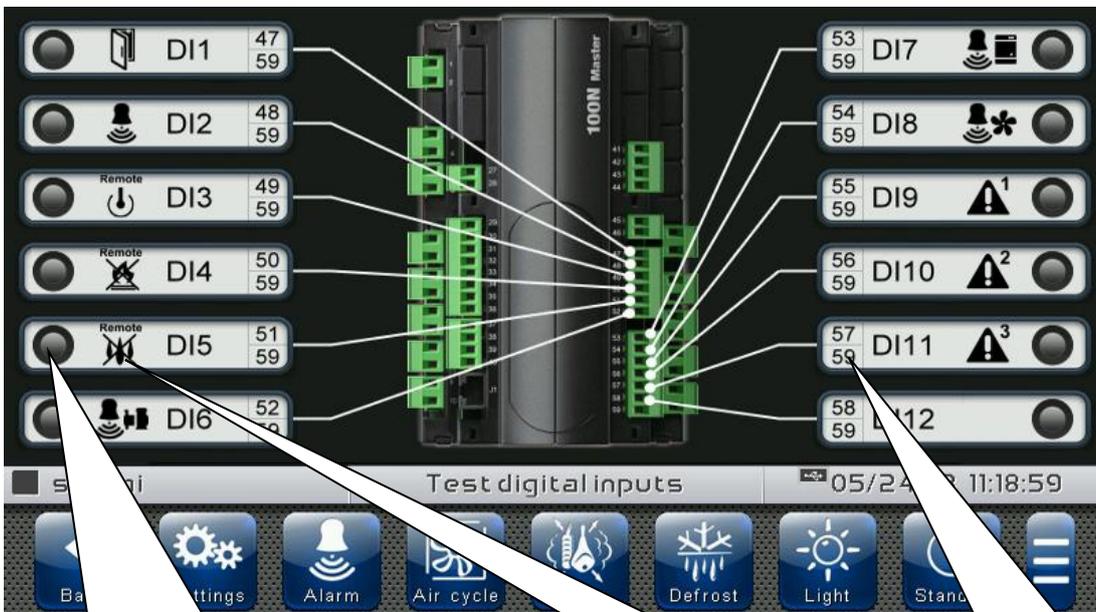
Press to enable / disable a digital output

Output function (can be set)

Connection terminals

- Digital inputs test

The “Digital inputs test” allows to verify the correct acquisition of the digital inputs of the connected 100N MASTER3. The function associated to each digital input can be set in “Parameters” => “Configure I/O” => “Digital inputs”.



In presence of an active digital input the indicator light turns green

Input function (can be set)

Connection terminals

**- Analogue outputs test**

The “Analogue outputs test” allows to manually force the analogue outputs of the connected 100N MASTER3, by setting the values manually between 0 and 10V. Access to this menu put the control unit in “Stand by”: the time progress of an ongoing program is not altered but all output functions are disabled.

The function associated to each digital output can be set in “Parameters” => “Configure I/O” => “Analogue outputs”.

The screenshot displays the 'Test analogue outputs' interface. On the left, a physical terminal block is shown with three channels highlighted. The interface lists the following outputs:

Ref.	AO	Description	Control
41 Ref. 44 Gnd	AO1	Hot water regulation	+ 0V -
42 Ref. 44 Gnd	AO2	Cold water regulation	+ 0V -
43 Ref. 44 Gnd	AO3	Fan speed regulation	+ 0V -

Callout boxes identify the following elements:

- Connection terminals:** Points to the physical terminal block on the left.
- Output description:** Points to the text description of the output function.
- Increase (+) / Decrease (-) the value of an analogue output:** Points to the '+' and '-' buttons.

**- Analogue inputs test**

The “Analogue inputs test” allows to verify the correct acquisition of the analogue inputs (probes) of the connected 100N MASTER3. The function associated to each digital output can be set in “Parameters” => “Configure I/O” => “Analogue inputs”

The screenshot displays the 'Test analogue inputs' interface. On the right, a physical terminal block is shown with five channels highlighted. The interface lists the following inputs:

Value	Input Name	Description	Probe Type	Terminals
23 RH%	A1	Ambient relative humidity probe	RH 4-20mA	27 V+ 28
23.5 °C	A2	Ambient temperature probe	NTC	29 30
24.2 °C	A3	Evaporator temperature probe	NTC	31 32
	A4			33 34
	A5			35 36

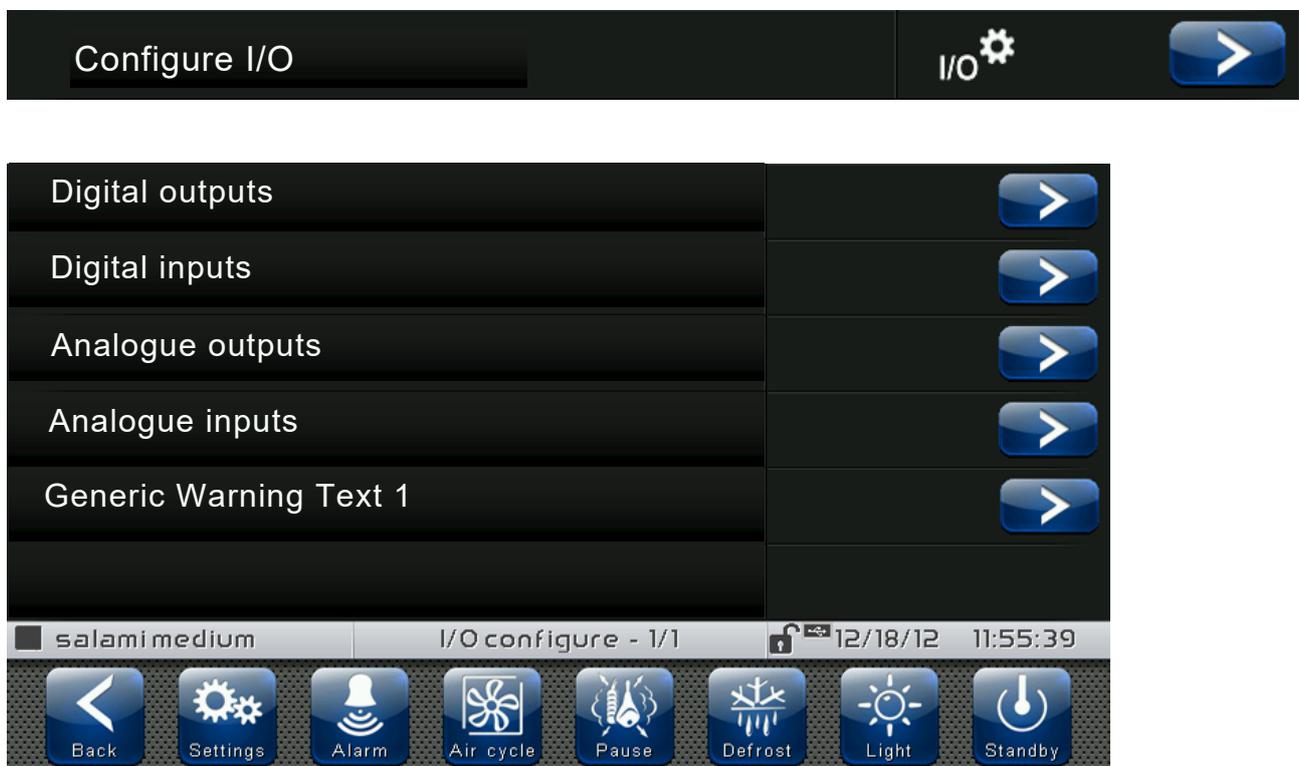
Callout boxes identify the following elements:

- Acquired value:** Points to the numerical and unit value displayed for each input.
- Input description:** Points to the text description of the input probe.
- Input name and probe type:** Points to the input name (AI1-AI5) and its associated probe type (e.g., RH, NTC).
- Connection terminals:** Points to the physical terminal block on the right.

“Configure I/O” allows to set the function associated to each input/output of the connected 100N MASTER3.

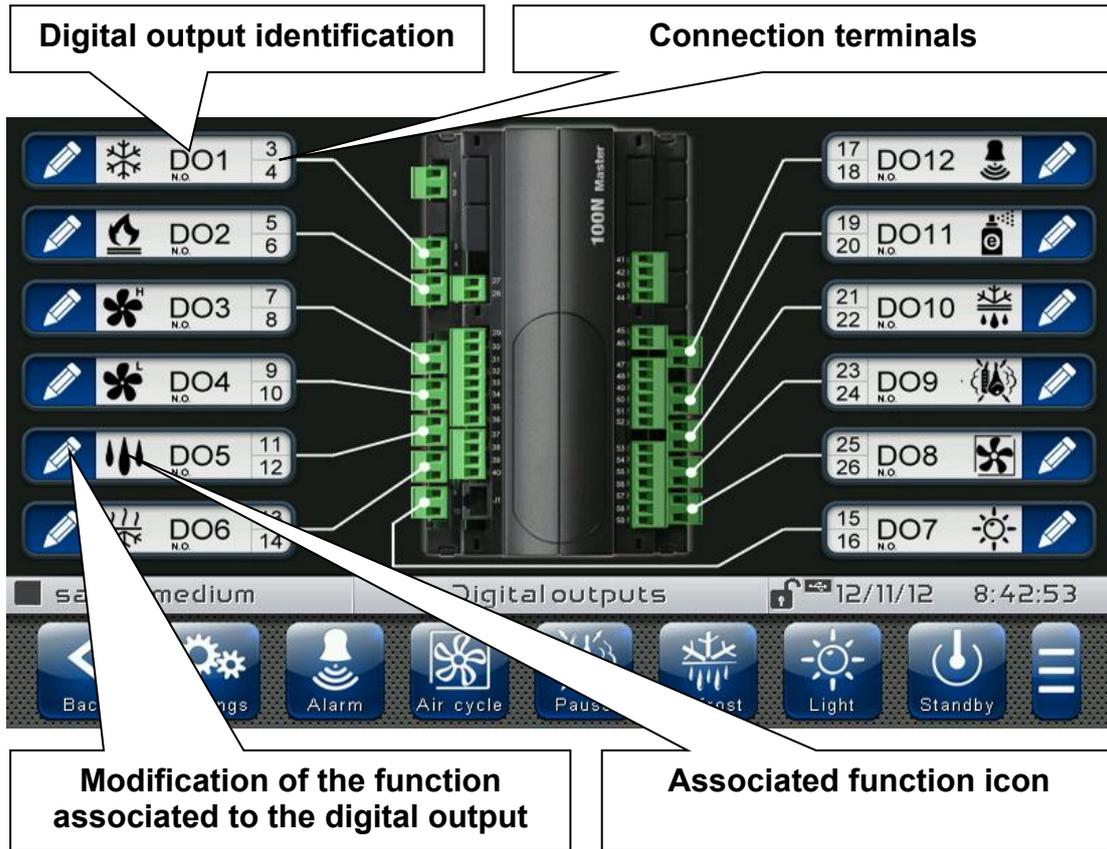
**The “Configure I/O” function is reserved to expert users. Pego S.r.l. disclaims any liability for damage to the system due to improper use of this function.**

The “Configure I/O” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “Configure I/O” item (installer login required).



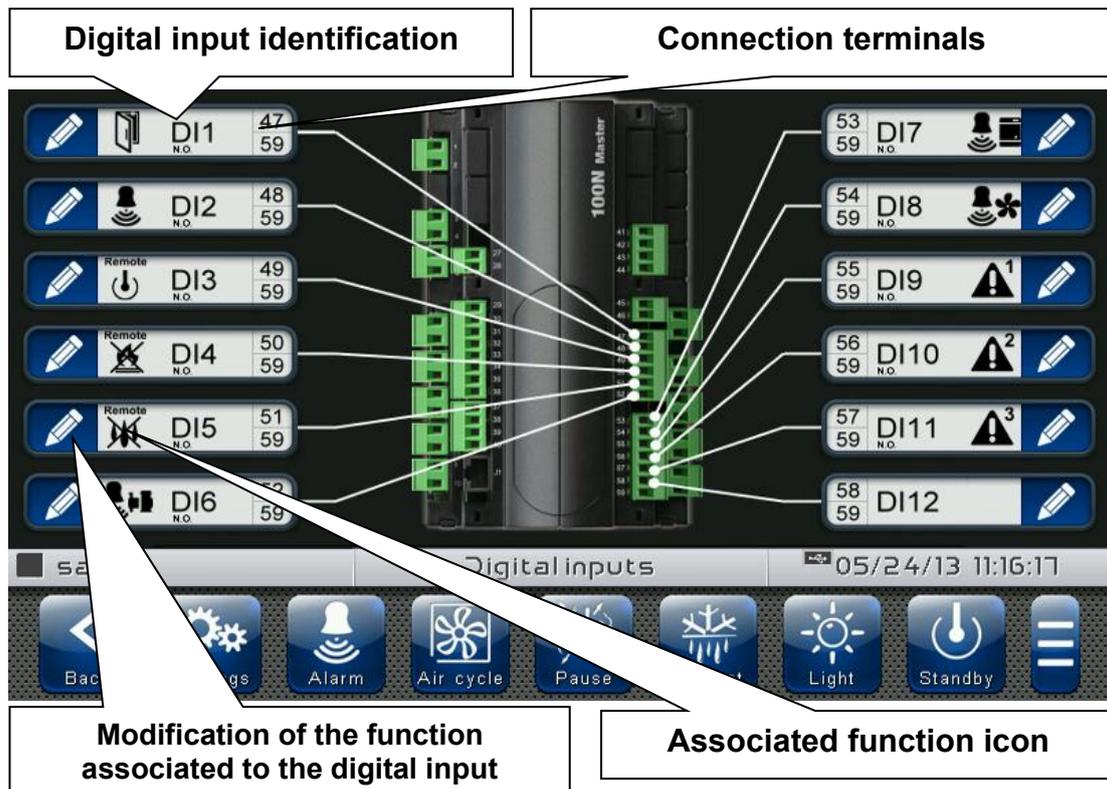
### - Digital outputs

“Digital outputs” allows to change the function associated to each digital output of the connected 100N MASTER3. The modification of an output puts the control unit in “Stand by”. In the event a function is not associated to at least one output, the eventual call from the control unit will not activate any digital output (only the status icon will be activated to indicate a call).



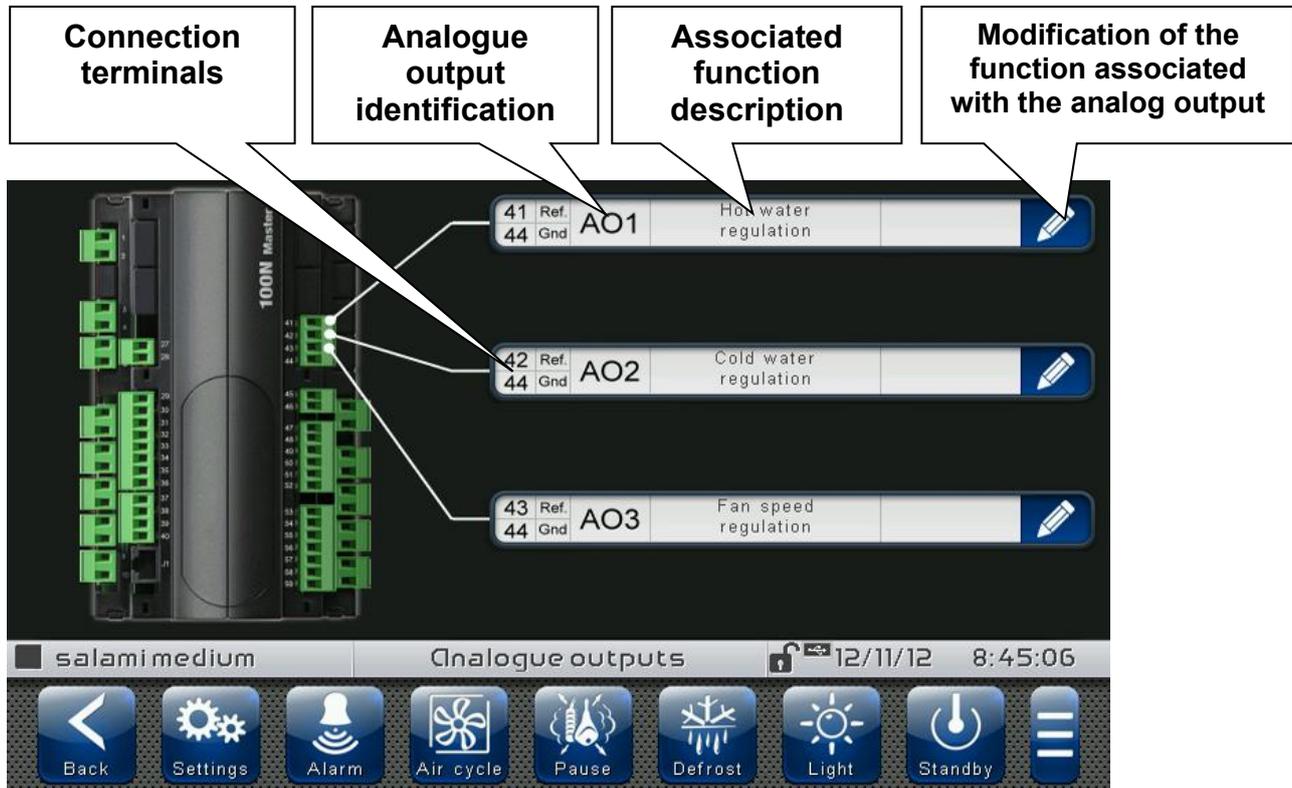
- Digital inputs

“Digital inputs” allows to modify the function associated to each digital input of the connected 100N MASTER3. The modification of an input puts the control unit in “Stand by”.



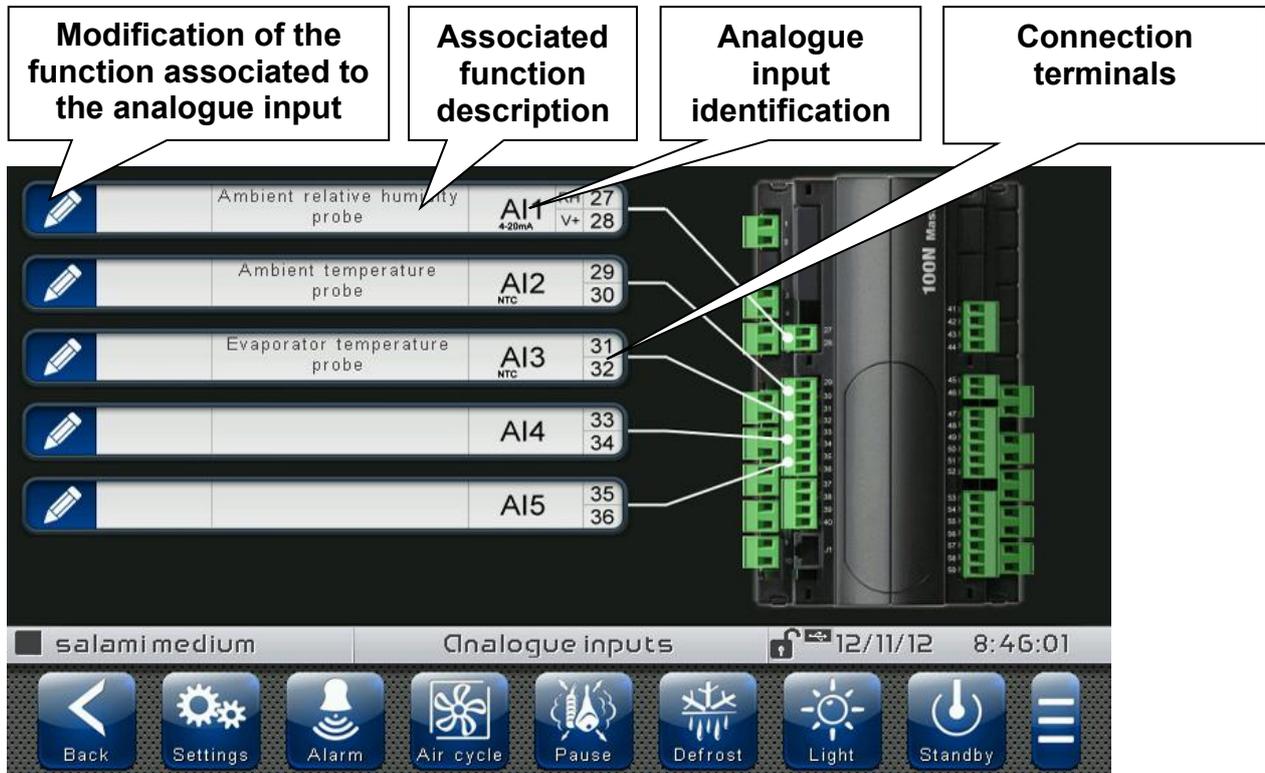
## - Analogue outputs

“Analogue outputs” allows to change the function associated to each analogue output of the connected 100N MASTER3. The modification of an output puts the control unit in “Stand by”. In the event a function is not associated to at least one output, the eventual call from the control unit will not activate any analogue output (only the status icon will be activated to indicate a call).



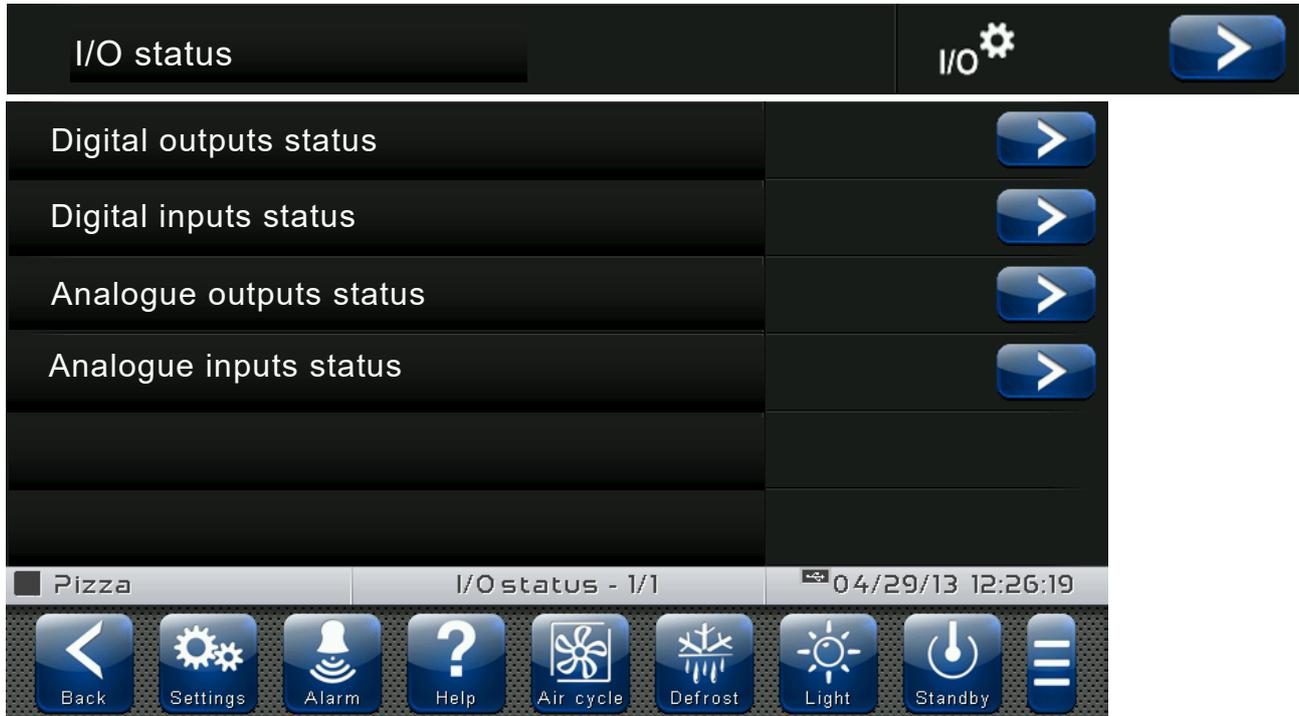
## - Analogue inputs

“Analogue inputs” allows to modify the function associated to each analogue input of the connected 100N MASTER3. The modification of an input puts the control unit in “Stand by”. In the event of an incorrect association between a probe and a function, the alarm is signalled (Ec1 ÷ Ec9).

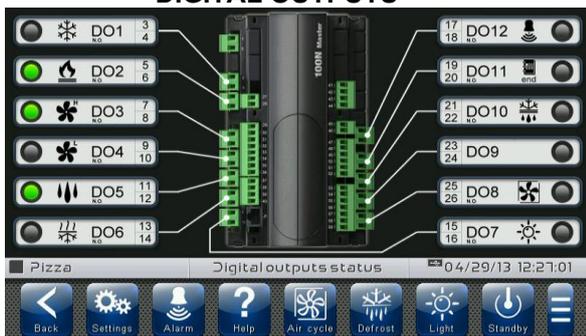


“I/O Status” allows the status of each input/output of the connected 100N MASTER3 to be displayed.

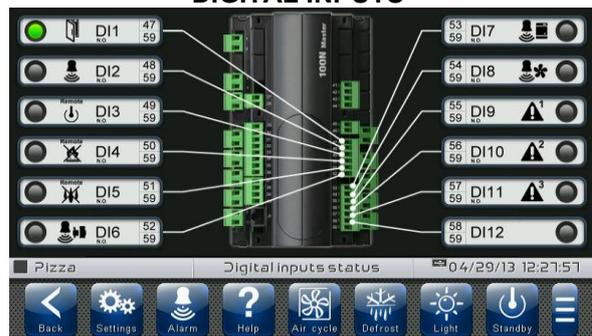
The “I/O Status” menu can be accessed from the main Configuration page (“Parameters” Button). The display of this item can be set in the “Password” sub-menu => “Configure user level menu” and by selecting the “I/O Status” item (installer login required).



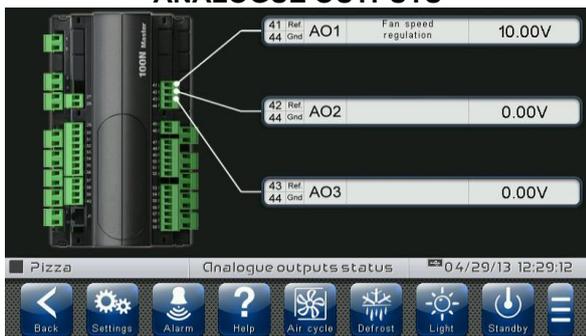
**DIGITAL OUTPUTS**



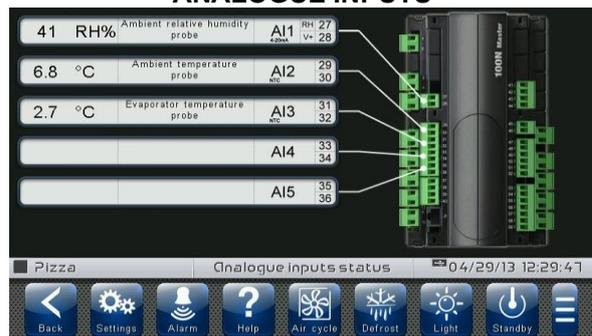
**DIGITAL INPUTS**



**ANALOGUE OUTPUTS**



**ANALOGUE INPUTS**



# CHAPTER 9: PROGRAM MANAGEMENT

## 9.1

### Program management



**PROGRAM MANAGEMENT MANAGER BUTTON:**

(Present in the Extended Button bar)

Once this is pressed, the program management screen appears, which allows data to be imported from or exported to a USB or SD card.

The “Program management” menu allows programs saved on the device to be imported/exported. This menu can be accessed via the "Manager" button on the Extended button bar. The display of this item can be set in the “Password” sub-menu => “Configure user functions” and by selecting the “Recipe Manager” item (installer login required).

**It imports programs from a USB external memory unit loading them in the internal memory of the controller.**

Inside the menu:



= Import from USB

N.B. Make sure the USB memory unit is inserted.

**It imports programs from an SD external memory unit loading them in the internal memory of the controller.**

Inside the menu:



= Import from SD

N.B. Make sure the SD memory unit is inserted.



**Export programs from internal memory of the controller to the external USB memory unit.**

Inside the menu:



= Export to USB

N.B. Make sure the USB memory unit is inserted.

**It exports programs from internal memory of the controller to the external SD memory unit.**

Inside the menu:



= Export to SD

N.B. Make sure the SD memory unit is inserted.

# CHAPTER 10: DIAGNOSTICS

## DIAGNOSTICS

### 10.1

If any faults occur, the **200VTOUCHPAN** controller informs the operator, by means of alarm codes visualised on the display (via pop-up or on the 'Alarms' page) and an acoustic signal emitted by a buzzer inside the operating Console (if enabled). One of the following messages appears on the screen when an alarm condition occurs:

ALARM CODE	POSSIBLE CAUSE	SOLUTION
<b>E0</b>	<b>EEPROM Vision Touch alarm</b>	<ul style="list-style-type: none"> <li>Switch the appliance off and back on.</li> <li>Select 'Repair EEPROM' in the 'Software' menu.</li> <li>If the problem persists, contact the technical assistance service.</li> </ul>
<b>E0m</b>	<b>EEPROM 100N MASTER alarm</b>	<ul style="list-style-type: none"> <li>Switch the appliance off and back on.</li> <li>If the problem persists, contact the technical assistance service.</li> </ul>
<b>E1</b>	<b>Probe connected to channel 1 functional fault</b>	<ul style="list-style-type: none"> <li>Check the probe status.</li> <li>Verify that its configuration is correct in the "Configure I/O&gt;Analogue Inputs" menu.</li> </ul>
<b>E2</b>	<b>Probe connected to channel 2 functional fault</b>	<ul style="list-style-type: none"> <li>Check the probe status.</li> <li>Verify that its configuration is correct in the "Configure I/O&gt;Analogue Inputs" menu.</li> </ul>
<b>E3</b>	<b>Probe connected to channel 3 functional fault</b>	<ul style="list-style-type: none"> <li>Check the probe status.</li> <li>Verify that its configuration is correct in the "Configure I/O&gt;Analogue Inputs" menu.</li> </ul>
<b>E4</b>	<b>Probe connected to channel 4 functional fault</b>	<ul style="list-style-type: none"> <li>Check the probe status.</li> <li>Verify that its configuration is correct in the "Configure I/O&gt;Analogue Inputs" menu.</li> </ul>
<b>E5</b>	<b>Probe connected to channel 5 functional fault</b>	<ul style="list-style-type: none"> <li>Check the probe status.</li> <li>Verify that its configuration is correct in the "Configure I/O&gt;Analogue Inputs" menu.</li> </ul>
<b>E6</b>	<b>Clock low battery alarm.</b> If the power fails, the time setting will be lost (not the previously recorded data).	<ul style="list-style-type: none"> <li>Replace the clock battery (<b>CR2032</b>), located on the back of the Vision Touch console.</li> </ul>
<b>EuH</b>	<b>Maximum humidity alarm.</b> The environment has reached a humidity level higher than that set for the maximum humidity alarm (see parameter AU2, 'Alarms regulation' menu).	<ul style="list-style-type: none"> <li>Check the humidity management.</li> <li>The probe does not detect humidity correctly.</li> </ul>
<b>EuL</b>	<b>Minimum humidity alarm.</b> The environment has reached a humidity level lower than that set for the minimum humidity alarm (see parameter AU1, 'Alarms regulation' menu).	<ul style="list-style-type: none"> <li>Check the humidity management.</li> <li>The probe does not detect humidity correctly.</li> </ul>
<b>EtH</b>	<b>Maximum temperature alarm.</b> The environment has reached a temperature level higher than that set for the maximum temperature alarm (see parameter At2, 'Alarms regulation' menu).	<ul style="list-style-type: none"> <li>Check the compressor status.</li> <li>The probe does not detect the temperature correctly or the compressor on/off control does not work.</li> </ul>
<b>EtL</b>	<b>Minimum temperature alarm.</b> The environment has reached a temperature level lower than that set for the minimum temperature alarm (see parameter At1, 'Alarms regulation' menu).	<ul style="list-style-type: none"> <li>Check the compressor status.</li> <li>The probe does not detect the temperature correctly or the compressor on/off control does not work.</li> </ul>
<b>Eg</b>	<b>General alarm</b> (e.g. Thermal protection or max pressure switch). The outputs are all deactivated except for the alarm output, if configured.	<ul style="list-style-type: none"> <li>Check compressor absorption.</li> <li>If the problem persists, contact the technical assistance service.</li> </ul>

<b>Ec</b>	<b>Compressor protection alarm.</b> The compressor output is disabled.	<ul style="list-style-type: none"> <li>• Check compressor absorption.</li> <li>• If the problem persists, contact the technical assistance service.</li> </ul>
<b>EU</b>	<b>Humidifier alarm.</b> The humidifier output is disabled.	<ul style="list-style-type: none"> <li>• Check the humidifier status.</li> <li>• If the problem persists, contact the technical assistance service.</li> </ul>
<b>EF</b>	<b>Fans protection.</b> The fans output is disabled.	<ul style="list-style-type: none"> <li>• Check the fans status.</li> <li>• If the problem persists, contact the technical assistance service.</li> </ul>
<b>En</b>	<b>No connection between Console and MASTER board.</b>	<ul style="list-style-type: none"> <li>• Check the connection between the two units.</li> <li>• If the problem persists, contact the technical assistance service.</li> </ul>
<b>Enl</b>	<b>MASTER board initialisation error.</b>	<ul style="list-style-type: none"> <li>• Check the connection between the two units.</li> <li>• Switch the Vision Touch off and on again.</li> <li>• If the problem persists, contact the technical assistance service.</li> </ul>
<b>Ed</b>	<b>Dehumidification timeout.</b> The dehumidification output has remained active for a longer time than the parameter dEt.	<ul style="list-style-type: none"> <li>• Check the dehumidifier status.</li> <li>• Increase the set time limit in the parameter dEt ('Machine protection' menu).</li> </ul>
<b>Ec1</b>	<b>Room Temperature Probe Configuration Error.</b>	<ul style="list-style-type: none"> <li>• Check the configuration of the analogue inputs.</li> <li>• Check enabling of the ambient probe.</li> </ul>
<b>Ec2</b>	<b>Evaporator Temperature probe Configuration Error.</b>	<ul style="list-style-type: none"> <li>• Check the configuration of the analogue inputs.</li> <li>• Check enabling of the evaporator probe.</li> </ul>
<b>Ec3</b>	<b>Room Humidity Probe Configuration Error.</b>	<ul style="list-style-type: none"> <li>• Check the configuration of the analogue inputs.</li> <li>• Check enabling of humidity management.</li> </ul>
<b>Ec4</b>	<b>Pump-down Configuration Error</b>	<ul style="list-style-type: none"> <li>• Check the configuration of the digital inputs.</li> </ul>
<b>Ec5</b>	<b>Configuration Error of Cold-water Temperature probe.</b>	<ul style="list-style-type: none"> <li>• Check the configuration of the analogue inputs.</li> <li>• Check enabling of cold-water management.</li> </ul>
<b>Ec6</b>	<b>Configuration Error of Hot-water Temperature probe.</b>	<ul style="list-style-type: none"> <li>• Check the configuration of the analogue inputs.</li> <li>• Check enabling of hot-water management.</li> </ul>
<b>Ep</b>	<b>Recipe programming error</b> (incorrect time of the prepared product).	<ul style="list-style-type: none"> <li>• Change the time of the prepared product</li> </ul>
<b>Ag1</b>	<b>General alarm 1 from digital input.</b>	<ul style="list-style-type: none"> <li>• Verify the digital input configured as 'Generic warning 1'</li> </ul>
<b>Ag2</b>	<b>General alarm 2 from digital input.</b>	<ul style="list-style-type: none"> <li>• Verify the digital input configured as 'Generic warning 2'</li> </ul>
<b>Ag3</b>	<b>General alarm 3 from digital input.</b>	<ul style="list-style-type: none"> <li>• Verify the digital input configured as 'Generic warning 3'</li> </ul>
<b>Edi</b>	<b>Digital input configuration error</b> during an import or update configuration.	<ul style="list-style-type: none"> <li>• Check the configuration of the digital input</li> <li>• Reconfigure the input disabled</li> </ul>
<b>Edo</b>	<b>Digital output configuration error</b> during an import or update configuration.	<ul style="list-style-type: none"> <li>• Check the configuration of the digital output</li> <li>• Reconfigure the output disabled</li> </ul>
<b>Eai</b>	<b>Analogue input configuration error</b> during an import or update configuration.	<ul style="list-style-type: none"> <li>• Check the configuration of the analogue input</li> <li>• Reconfigure the input disabled</li> </ul>
<b>Eao</b>	<b>Analogue output configuration error</b> during an import or update configuration.	<ul style="list-style-type: none"> <li>• Check the configuration of the analogue output</li> <li>• Reconfigure the output disabled</li> </ul>
<b>EPH</b>	<b>High pressure general alarm.</b> The compressor output is disabled.	<ul style="list-style-type: none"> <li>• Check the refrigerant circuit</li> <li>• If the problem persists, contact the technical assistance service</li> </ul>
<b>EPL</b>	<b>Low pressure general alarm.</b> The compressor output is disabled.	<ul style="list-style-type: none"> <li>• Check the refrigerant circuit</li> <li>• If the problem persists, contact the technical assistance service</li> </ul>

<b>EPd</b>	<b>Pump-down anomaly.</b>	<ul style="list-style-type: none"><li>• Check the compressor status.</li><li>• The probe does not detect the temperature correctly or the compressor on/off control does not work.</li></ul>
<b>EPI</b>	<b>Pump-down: Low pressure alarm in start-up.</b>	<ul style="list-style-type: none"><li>• Check the compressor status.</li><li>• The probe does not detect the temperature correctly or the compressor on/off control does not work.</li></ul>

By pressing the “Alarms” button one accesses the relative management page that contains the log relating to the last 30 alarms detected. The alarms can take on different colours:

- RED ALARM: indicates an alarm in progress, not solved.
- ORANGE ALARM: when a red alarm is cleared because the cause is solved, it turns orange and becomes an alarm to be acquired. If all alarms are cleared the “Alarm” button turns orange.
- SOLVED ALARM: the acquired alarm loses all color and remains stored in the alarm management.

The screenshot shows a list of alarms with the following details:

Alarm Code	Description	Begin Time	Period	Status
E1	Sensor 1 fault Ambient relative humidity probe	11-12-2012 08:57:35		Red Alarm (in progress)
EtH	Maximum temperature alarm	11-12-2012 08:55:23	1 min. 52 sec.	Orange Alarm (cleared)
E2	Sensor 2 fault Ambient temperature probe	11-12-2012 08:51:25	1 min. 55 sec.	Orange Alarm (cleared)
E3	Sensor 3 fault Evaporator temperature probe	11-12-2012 08:50:45	2 min. 35 sec.	Orange Alarm (cleared)
E1	Sensor 1 fault Ambient relative humidity probe	11-12-2012 08:48:34	1 min. 35 sec.	Solved Alarm
---	Device power on	11-12-2012 08:48:11		Solved Alarm

Callouts from the image:

- RED ALARM**: Solve the cause
- ORANGE ALARM**: Alarm cleared. Press the alarm to acquire it
- ALARM SOLVED**: Alarm cleared and acquired by the user

The screenshot shows the same alarm list with additional callouts:

- Alarm code (see Diagnostics)**: Points to the 'E1', 'EtH', 'E2', 'E3', 'E1' codes.
- Alarm description**: Points to the 'Maximum temperature alarm' description.
- Alarm situation duration**: Points to the '1 min. 52 sec.' duration.
- Alarm status (in progress | cleared | solved)**: Points to the status icons (envelope, checkmark).
- E-MAIL SENT**: Points to the envelope icon, with text: "If emails are enabled, it indicates the attempt to send an email related to the alarm."
- Alarms list deletion**: Points to the 'Alarm' button in the bottom menu, with text: "(button present only if all alarms have been solved)".
- Date and time the alarm situation started**: Points to the '12/11/12 9:07:00' timestamp.

Pop-ups are elements that appear on the screen in order to draw the user's attention to particular situations that may occur during normal use of the VISION TOUCH PAN control.



### RED POP-UP

It may indicate:

- activated alarm warning
- the action that one is about to perform is critical and irreversible. Pay particular care when confirming the operation.



### YELLOW POP-UP

The operation one is about to perform is critical. A confirmation is required.



### GREEN POP-UP

Device warnings.  
It may indicate the completion of a program in progress.



### BLUE POP-UP

Device start-up  
(date and time are stored in alarms management).

# CHAPTER 11: WEB SERVER

## 11.1

### INSTALLATION

The Web configuration of the Vision Touch PAN depends on the type of connection.

#### - Direct connection to the PC

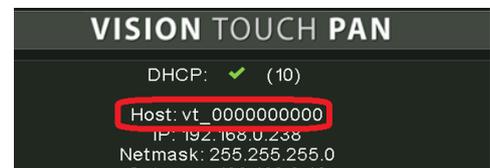


The network card of the computer must be configured to have the assignment of the DHCP address activated. In this case, the Vision Touch PAN and the computer, finding no DHCP server, will take the default IP addresses previewed for the class of addressing **169.254.xxx.xxx**. To connect to the device, it will be necessary to open a browser page and digit in the address bar the following order:

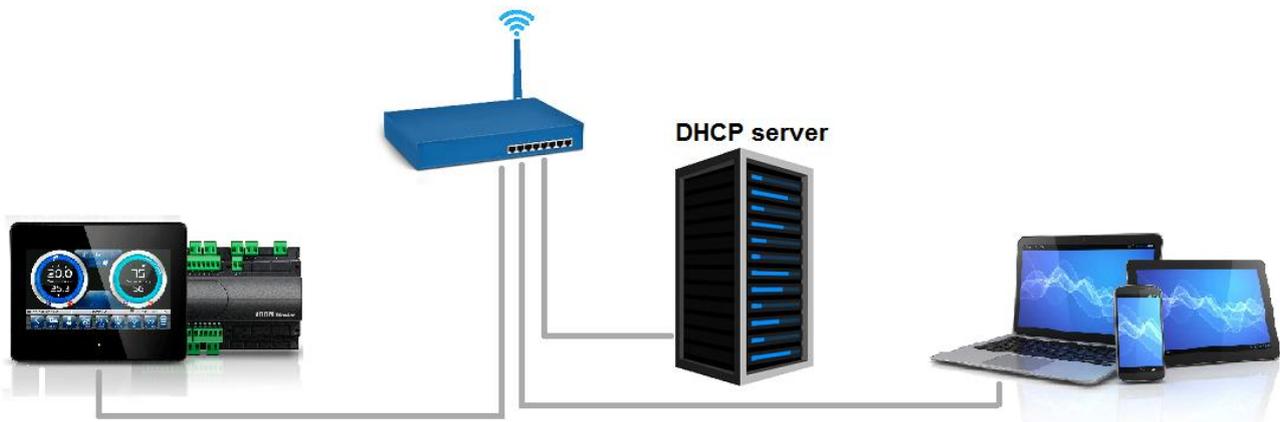
**http://hostname/** where hostname = unique identifier linked to the serial number on the info page (Take look at "Info Page", chap. 8.3.9).

or

**http://169.254.254.1/** (IP default address of the Vision Touch)



- LAN Connection



If connected to a LAN where a DHCP server is present (and the DHCP solicitude is enabled on the Vision Touch, look at chap. 8.3.9), the Vision Touch will acquire a free IP address. In this case it is possible to consult the IP address acquired through the “Info Page” that you find in the “Web server” menu of the Vision Touch.

If the DHCP is not present, Vision Touch maintains the IP address set in the configuration of the parameters.

Pay attention: in this case, IP conflicts with other devices connected to the LAN could be possible.

To connect to the Vision Touch, it will be necessary to connect your own device to the same net, in DHCP mode, or with compatible static IP, open up a browser and digit in the address bar the following order:

**http://hostname/** where hostname = unique identifier linked to the serial number on the info page (look at “Info Page”, chap. 8.3.9).

or

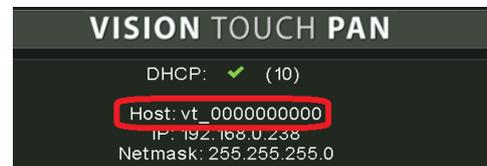
**http://XXX.XXX.XXX.XXX/** (Vision Touch IP address, look at “Info Page”, chap. 8.3.9)

**NOTE:** The Host name of the Vision Touch is a unique reference linked to the serial number. So that it is possible to connect different Vision Touch devices using the same LAN net, setting distinct IP addresses in case that a DHCP server is not available.

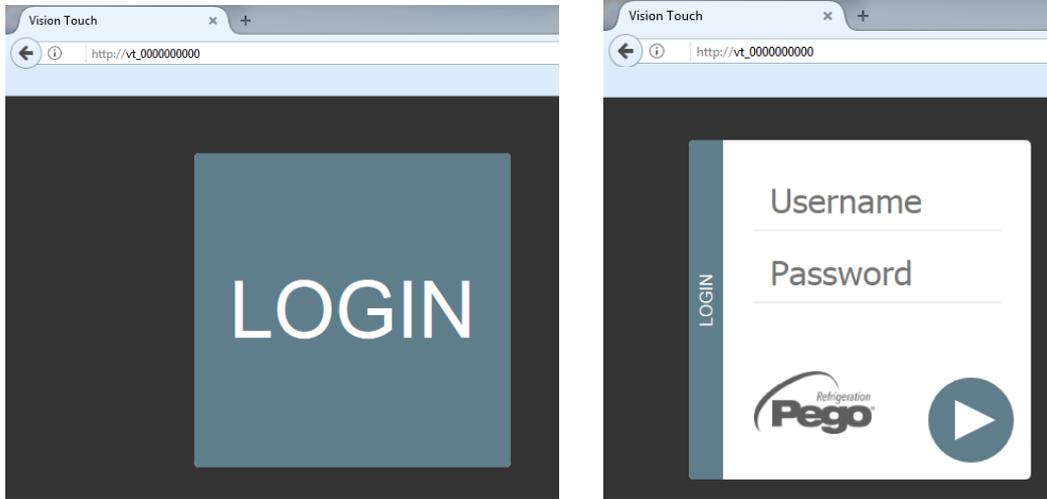
To reach Vision Touch from a web browser, simply write in the address bar:

**http://vt\_XXXXXXXXXX/**

Where XXXXXXXXXXXX = serial number of the device

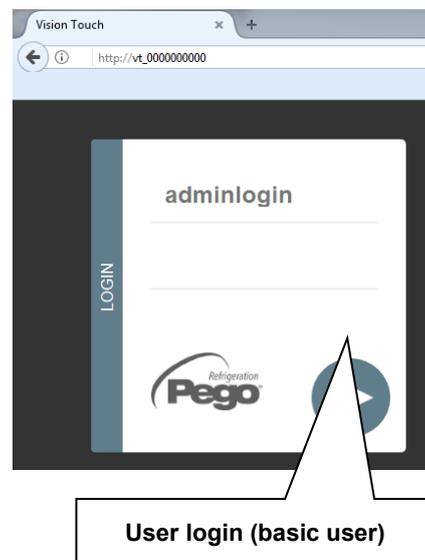
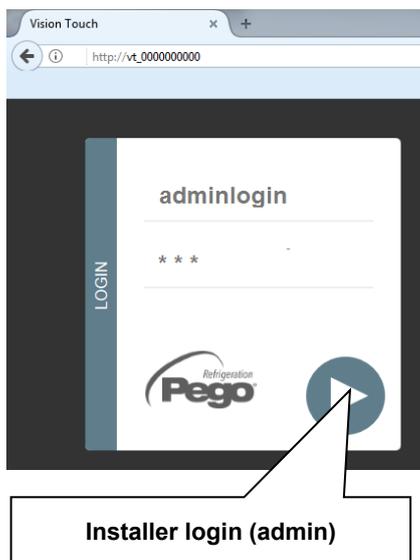


The access to the Web page of the Vision Touch is subject to the access control through Username and Password.



It is possible to access to the Web pages of the Vision Touch in other two modes:

- basic user: inserting in the “Username” field the username set in the “Web server” menu of the Vision Touch (page “Username”), you log in with the same permits that the basic user has on the Vision Touch. The installer, inhibiting the functions or the access to the parameters to the local user, also blocks the access to such features to the basic user who logs in through the Web page.
- admin user: inserting in the “Username” field the username set in the “Web server” menu of the Vision Touch (page “Username”), and in the “Password” field, the installer password of the Vision Touch (the one used in the Password menu to access as installer) you log in with the same permits that the installer has on the Vision Touch. So, it is possible to edit the parameters and access to all the functions (if the Wce parameter supports the remote command, look at chap. 8.3.9).



The web interface counts with some fixed sections:

- On the left: browsing menu of the pages.
- At the top: name of the page, serial number and kind of connected user.
- On the right: content of the page.

### - Homepage

The screenshot shows the homepage of the Vision Touch PAN web interface. The interface is divided into several sections:

- Browsing menu of the pages:** A vertical menu on the left side containing: Live, PEGO Humidifier, I/O, Alarms, Command ▾, Info, and Logout.
- Current page:** The main content area displays "Live" and "s/n: 0000000000 - user".
- Current temperature (and temperature set point):** A red box shows "Temperature 22.6 °C" and "Setpoint 27.0 °C".
- Current humidity (and humidity set point):** A blue box shows "Humidity 31 HR%" and "Setpoint 80 HR%".
- Buttons:** A control panel at the bottom contains buttons for "Standby", "Light", "Defrost", "Man. hot", and "Man. cold". The "Man. hot" button is highlighted in orange.
- Loaded program:** A "Program:" section shows "pizza" as the loaded program.
- Warning signal:** A grey dot in the "Alarms" section indicates no alarm.
- Logout:** A callout explains that the Logout button logs the user out and returns them to the login page.
- Buttons:** A callout explains the button states: green background for active functions, blue for inactive, and grey for non-activatable functions (basic user).
- Loaded program:** A callout explains the program status: a grey square for a stopped program and a grey triangle for a running program.

## - PEGO Humidifier

The “Humidifier PEGO” page is visible only if the humidifier is enabled (EUm=1). The “Stand-by” and “Discharge” buttons are disabled if web commands are disabled (Wce=0 in Webserver menù) or if the user is not enabled.

**Humidifier**  
(steam present with active steam production)

**Humidifier's digital inputs**

**Humidifier's outputs**

**Stand-by Humidifier**

**Forcing manual discharge humidifier**

TA current (A)  
0

Production (%)  
0

Operating hours  
4

Inputs

Outputs

Standby Discharge

- I/O (Inputs / Outputs)

The screenshot shows the 'I/O' page of the Vision Touch PAN interface. The page title is 'Vision Touch PAN' and the user is 's/n: 0000000000 - user'. The interface is divided into two main sections: 'Analogue inputs' and 'Digital outputs'.

**Analogue inputs table:**

Input Range	Description	Value
27-28	Humidity probe [%RH]	31
29-30	Ambient temperature [°C]	22.9
31-32	Evaporator temperature [°C]	10.1
33-34	Disabled	
35-36	Disabled	

**Digital outputs table:**

Output Range	Description	Status
3-4	Cold (N.O.)	Grey
5-6	Hot (N.O.)	Green
7-8	Fans high speed (N.O.)	Green
9-10	Fans low speed (N.O.)	Grey
11-12	Humidify (N.O.)	Green
13-14	Dehumidify (N.O.)	Grey
15-16	Light (N.O.)	Grey
25-26	Air change (N.O.)	Grey
23-24	Adv. oven ignition(N.O.)	Grey
21-22	Defrost (N.O.)	Grey
19-20	Recipe notice (N.O.)	Grey
17-18	Alarm (N.O.)	Grey

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**Input / Output Clamp PIN on the 100N MASTER**

**Input / Output description (digital or analogical)**

**Input / Output status**

If digital:  
 - green: active input / output  
 - grey: inactive input / output

If analog, the value of the analog input or output is displayed.

## - Alarms

The "Alarms" page displays all the alarms in progress and those intervened, as they are stored in the Alarms page of the Vision Touch (look at chap. 10.2, Alarm Gesture).

The background color is indicative for the type of alarm:

- Red background: red flag alarm (the starting instant is indicated).
- Yellow background: annulled alarm (the starting instant and the duration are indicated).
- White background: alarm annulled and acquired on the Vision Touch.

**NOTE:** one cannot proceed to the acquisition of the alarms using the Web page.

The screenshot shows the "Alarms in progress" page for a Pego Refrigeration unit. The page title is "Vision Touch PAN" and the serial number is "s/n: 000000001". The table below lists the active alarms:

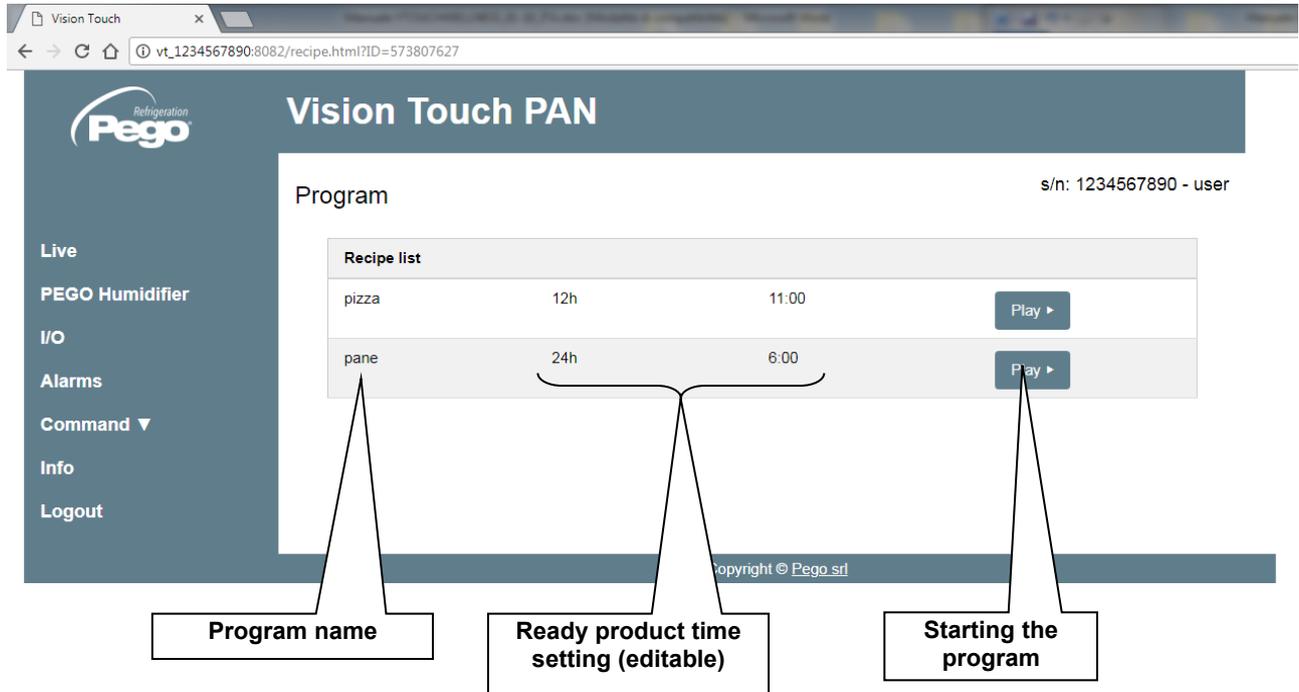
Code	Alarm
E2	Sensor 2 fault Ambient temperature probe Begin: 26-1-2018 12:04:17
Eg	General alarm Begin: 26-1-2018 12:02:50 Period: 0 min. 3 sec.
---	Device power on Begin: 26-1-2018 12:02:28

Callout boxes identify the columns: "Alarm code" points to the 'Code' column, and "Description and duration of the alarm" points to the 'Alarm' column.

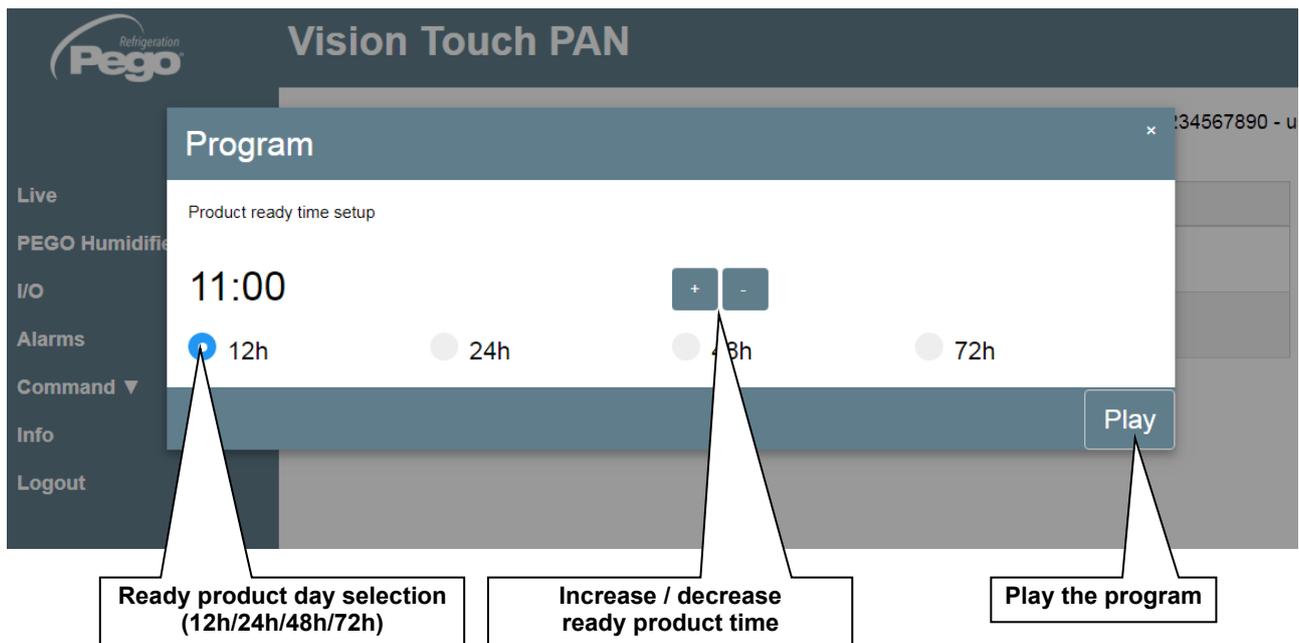
- Controls => Program

In the "Program" page, it is possible to select, start and stop the execution of the programs saved in the memory of the Vision Touch. The "Play" and "Stop" buttons can be disabled with Wce parameter.

When manual mode is active, the "Program" page shows the programs list.



By pressing the "Play" button, if the user is enabled (or is an administrator), the product ready setting page is showed. Pressing "Play", the program is started (after the consistency check of the planned schedule).

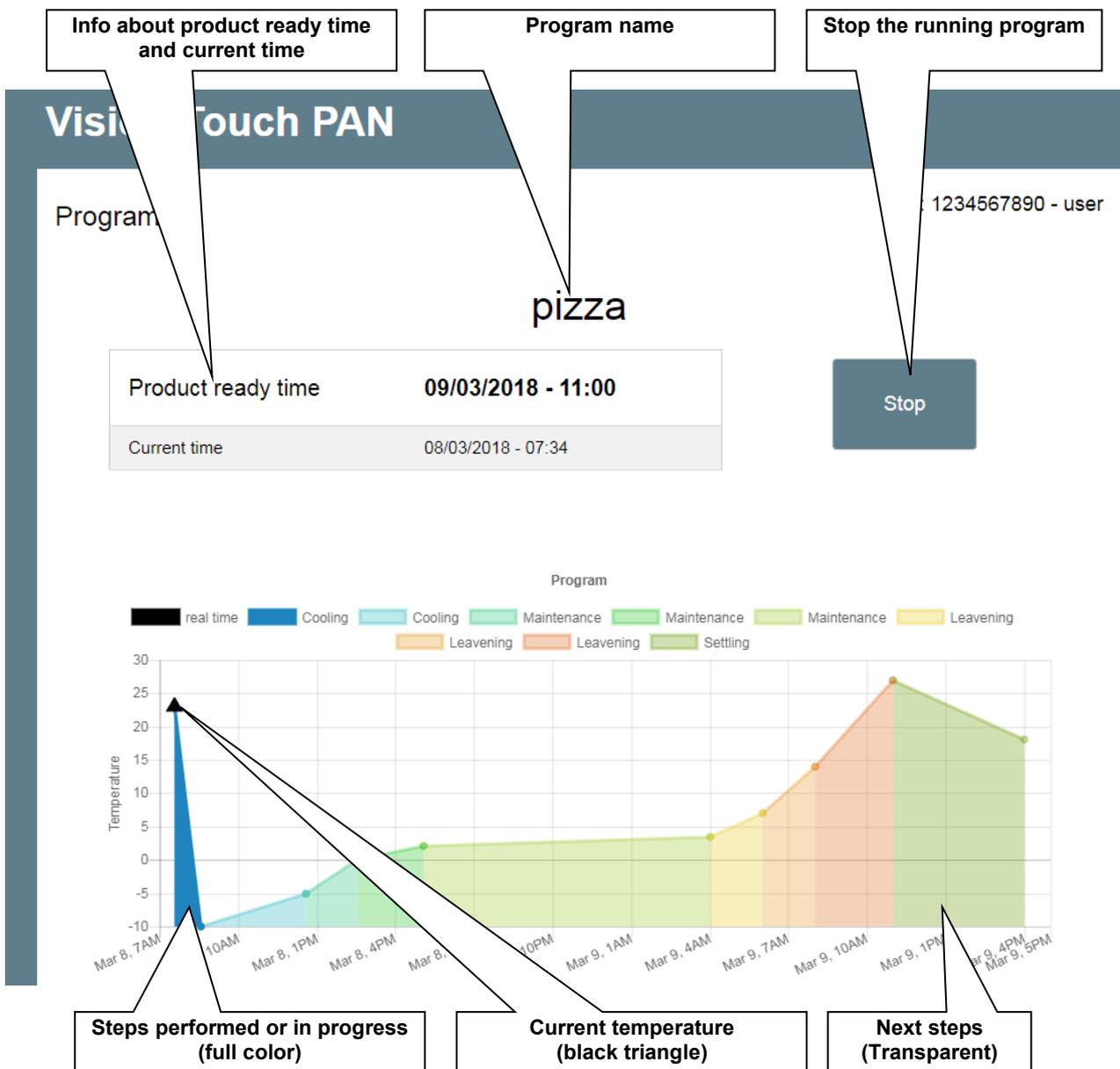


# VISION TOUCH PAN

If the scheduled ready product time is not compatible with the program length, the recipe programming error is activated.



When a program is running, the following page is shown:



Note: it's possible to deactivate the phase display by clicking on the phases name in the legend.

Current temperature: 23.0 °C

Current humidity: 28 HR%

	°C	RH%	Phase end
Cooling	-10.0	70	08-03-2018 08:33:44
Cooling	-5.0	70	08-03-2018 12:33:44
Maintenance	0.0	50	08-03-2018 14:33:44
Maintenance	2.0	70	08-03-2018 17:03:44
Maintenance	3.5	70	09-03-2018 04:00:44
Leavening	7.0	80	09-03-2018 06:00:44
Leavening	14.0	75	09-03-2018 08:00:44
Leavening	27.0	70	09-03-2018 11:00:44
Settling	18.0	70	09-03-2018 16:00:44

Phases list

Temperature / humidity setpoint

Phase deadline

- Controls => Parameters

**Parameters menu hidden to the basic user** (configuration in the Password menu on the Vision Touch)  
*Note: the admin user always has access to the complete list of the menu.*

**Parameters menu**  
 Click on the arrow to display the parameter list.

The screenshot shows the Vision Touch PAN interface. On the left is a navigation menu with items: Live, PEGO Humidifier, I/O, Alarms, Command, Info, and Logout. The main area displays the 'Parameters' menu with the following items: Setpoint, Process regulation, Fans, PAN configure, Machine protection, and Probes calibration. The 'PAN configure' item is highlighted with a lock icon and a dropdown arrow. The top right of the interface shows 's/n: 1234567890 - user'. The bottom of the interface has a copyright notice: 'Copyright © Pego srl'.

# VISION TOUCH PAN

Parameter code	Parameter description	Current value	Increase or decrease the value
dtC	Hot temperature differential	2.0 °C	+ -
dtF	Cold temperature differential	2.0 °C	+ -
dnC	Hot neutral zone	0.0 °C	+ -

## - Info

Info s/n: 1234567890 - user



Pego srl  
www.pego.it  
info@pego.it  
Tel: +39 0425762906

Hardware version:  
0.0.0.3

Bootloader version:  
187.0.0.3

Application version:  
2.0.0.2

Touch version:  
1

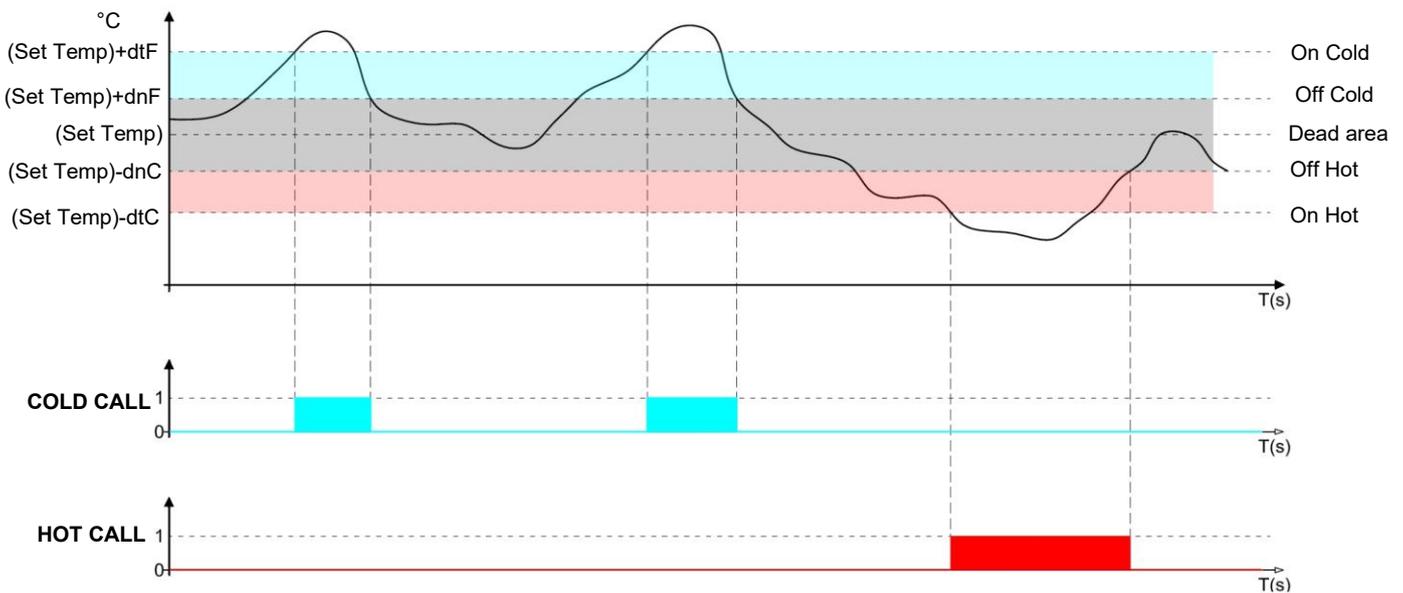
Copyright © Pego srl

## CHAPTER 12: OPERATION

### COLD/HOT: PRESERVATION OF AMBIENT TEMPERATURE

12.1

The cold and hot call is managed in neutral area depending on the set temperature setpoint ("Set Temp" label in "Home 1") and to the temperature differentials (parameters dtC and dtF in "Parameters > Process regulation"). The cold is activated upon exceeding of set + dtF and remains active until set is achieved (with dnF=0). The hot is activated below set - dtC and remains active until set is achieved (with dnC=0). It's possible to set a "dead area" with parameters dtn that deactivates hot and cold when the temperature is between SET-dnC and SET+dnF.



Parameter C1 (in "Parameters > Machine protection) introduces a delay between a switch-off and the subsequent re-activation of the cold. Hot can be deactivated with parameter EnH in "Parameters > Configure PAN" (EnH=0 disables the hot relay in all conditions). Cold can be deactivated with parameter EnC in "Parameters > Configure PAN" (EnC=0 disables the cold relay in all conditions).

**12.2 HUMIDIFICATION/DEHUMIDIFICATION: PRESERVATION OF AMBIENT HUMIDITY**

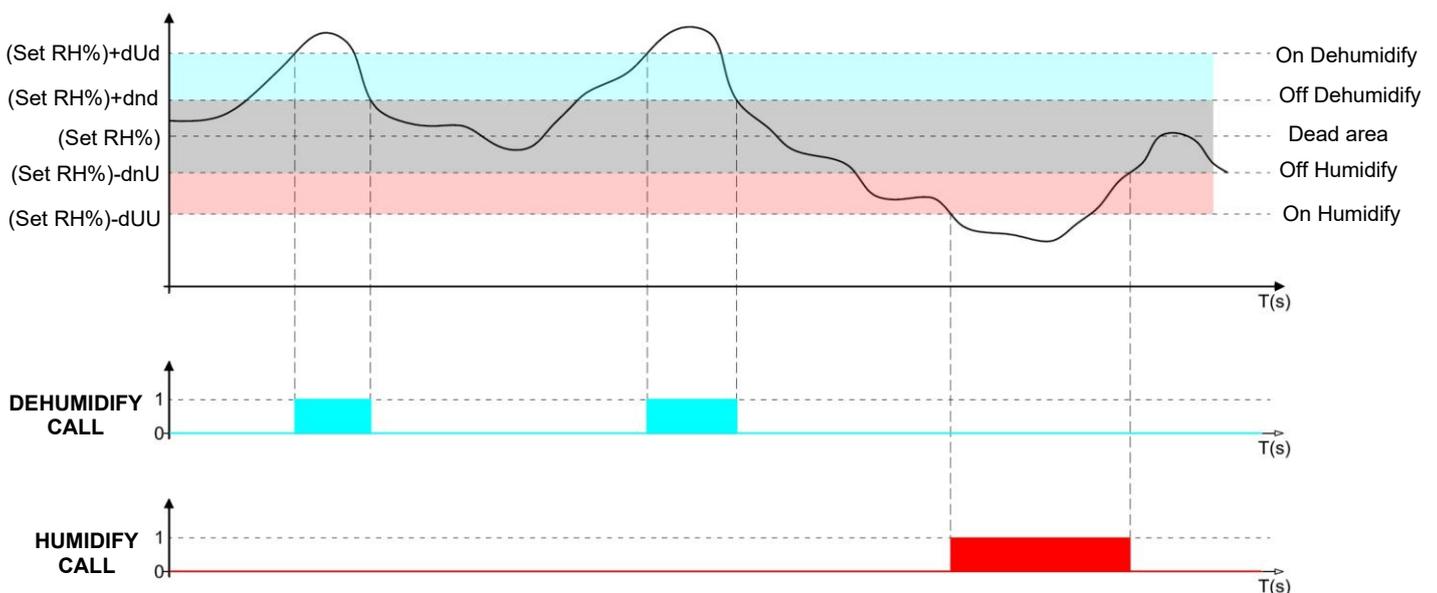
The humidity and the dehumidification call is managed in neutral area depending on the set humidity setpoint (“Set RH%” label in “Home 1”) and to the humidity differentials (parameters **dUU** and **dUd** in “Parameters > Process regulation”). Dehumidification is activated upon exceeding of **set + dUd** and remains active until set is achieved (with  $dnd=0$ ). Humidification is activated below **set - dUU** and remains active until set is achieved (with  $dnU=0$ ).

It's possible to set a "dead area" with parameters  $dnd$  and  $dnU$  that deactivates humidification and dehumidification when humidity is between **SET - dnU** and **SET + dnd**. The humidity management can be excluded with parameter  $Hr$  in “Parameters > Configure PAN”. Dehumidification only can be excluded with parameter  $End$ . Humidification only can be excluded with parameter  $EnU$ .

There are four dehumidification methods (parameter  $dEU$  in “Parameters > Configure PAN”):

- 0. Dehumidifies with the cold** (the cold is called to dehumidify, the hot is added only to maintain ambient temperature)
- 1. Dehumidifies with the hot** (the hot is called to dehumidify, the cold is added only to maintain ambient temperature)
- 2. Separate dehumidification** (only the dehumidification output activates but hot and cold are not called)
- 3. Dehumidification separate and working with cold off** (separate dehumidification that is activated only if a cold call is not in progress)

It's possible to give a maximum time for the dehumidification phase (parameter  $dEt$  in “Parameters > Machine protection”) by signalling an alarm.



0-10V PROPORTIONAL HUMIDIFIER MANAGEMENT

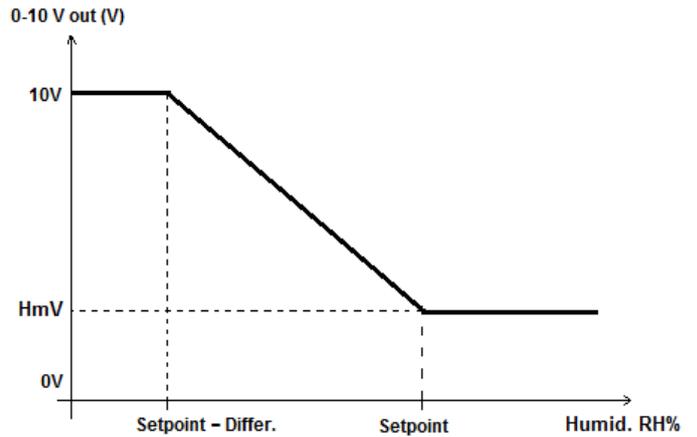
12.3

Configure an analogue output (AO1, AO2 or AO3) as "Humidifier control" to activate the proportional 0-10V management of the humidifier. In this case the analogue output 0-10V varies proportionally to the ambient humidity as shown in the following graph, where:

**Setpoint** = Ambient humidity Set – dnU parameter

**Differ.** = dUU parameter

**HmV** = minimum value of 0-10V humidifier output



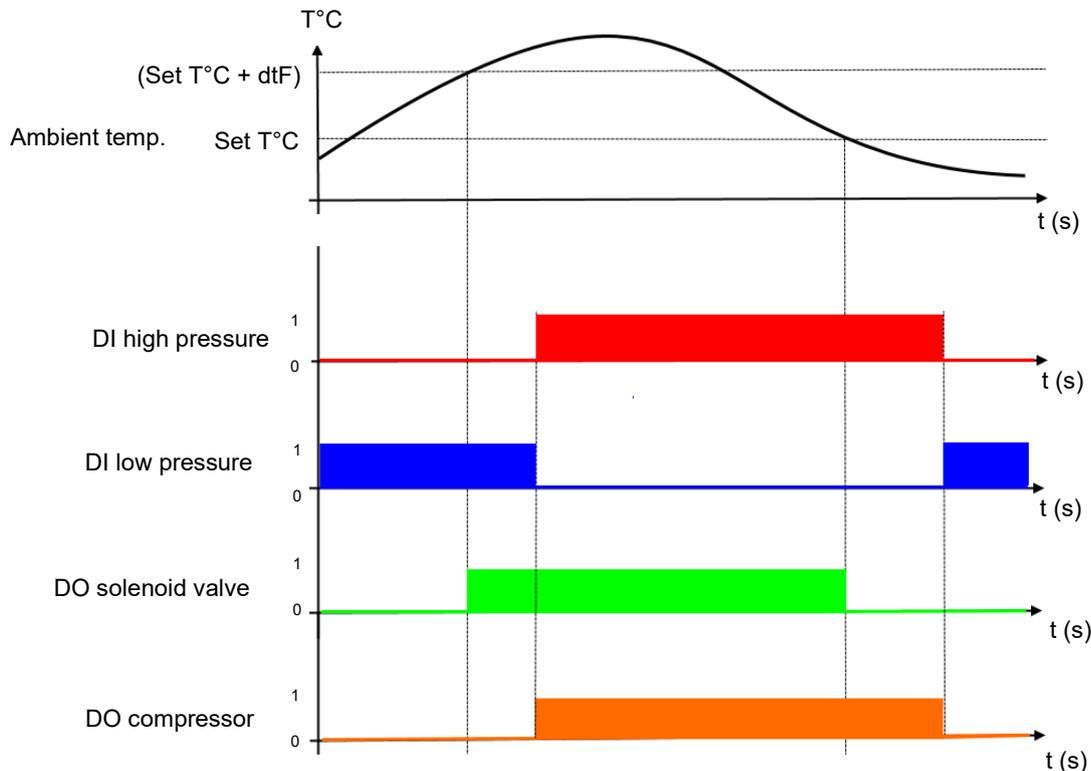
PUMP-DOWN MANAGEMENT

12.4

To activate pump-down management, configure:

- a digital output (DOx) as "Pump-down solenoid valve" (12) to manage the pump-down valve.
- a digital input (DIx) as "High pressure" connected to the high-pressure switch.
- a digital input (DIx) as "Low pressure" connected to the low-pressure switch.

With pump-down mode active, the digital inputs become compressor control inputs while the solenoid valve output depends directly on the ambient temperature.



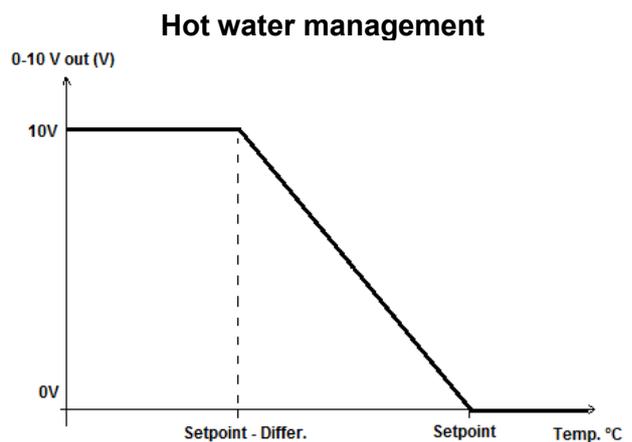
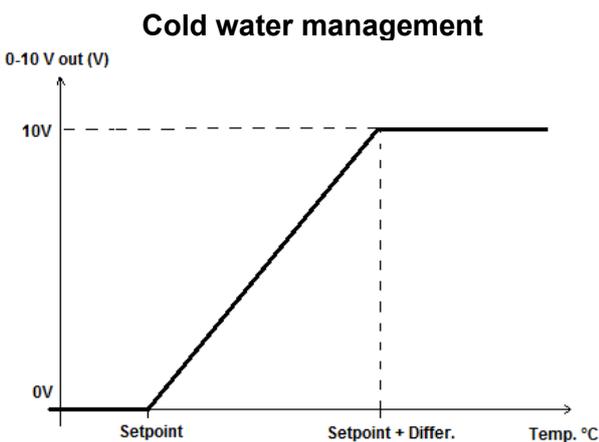
Hot and cold-water management can be enabled independently using the EHv, ECv parameters in the menus. Based on the value of EHv, ECv changes the reference probes and the parameters involved:

	Cold water management		Hot water management	
	ECv = 1	ECv = 2	EHv = 1	EHv = 2
<b>Reference setpoint</b>	SeC	Ambient set + dtn (neutral zone)	SeH	Ambient set - dtn (neutral zone)
<b>Differential</b>	r0C	Differential dtF	r0H	Differential dtC
<b>Response delay</b>	tdC	tdC	tdH	tdH

Set EHv / ECv = 1 if the system directly adjusts the hot / cold water temperature (with probe on the pipe) to control the temperature of the air leaving the exchanger. In this case connect the mixing valve that regulates the flow of hot / cold water to the 0-10V output and set and connect the water temperature probes, in addition to the room probe.

Set EHv / ECv = 2 if the system regulates the ambient air temperature while the hot / cold water temperature is managed by external units (chillers, heat pumps). In this case, only the room temperature probe is used for the regulation.

The response delay (tdC or tdH) slows down the variations of the 0-10V control output with respect to the temperature variations of the control probe.



**Rel. 2.0.5.1**

- Screensaver function.

**Rel. 2.0.10.1**

- Added two digital input's configurations for high and low pressure.
- New high- and low-pressure alarms (EPH, EPL).

**Rel. 2.0.0.2**

- Added Web server.
- Added parameters F3h e F3c for fan management in hot/cold manual mode.
- Added parameter Fdo for fan off delay after deactivating the hot output.
- Added the possibility to modify the temperature / humidity setpoints of the recipe in progress, if the user is enabled.

**Rel. 2.0.1.2**

- Humidifier regulation with 0-10V output and HmV parameter added.
- Added automatic time synchronization via the Web.

**Rel. 2.0.0.3**

- Automatic sending of e-mail in case of alarm.

**Rel. 2.0.2.3**

- Added temperature/humidity alarms regulation.

**Rel. 2.0.3.3**

- Added Slovak language

**Rel. 2.0.1.4**

- Read-only door micro function added
- Generic warning 1 with configurable text
- Pump-down function added

**Rel. 2.0.3.4**

- Added parameter AtE (enable of temperature/humidity alarm)

**Rel. 2.0.4.4**

- Added °F conversion

**Rel. 2.0.9.4**

- Added parameter LFs (minimum Fan Speed)

**Rel. 2.0.10.4**

- Added parameter StA (Door Resistance setpoint)

**Rel. 2.0.0.5**

- Configurable variable duration phase
- Standby deactivation when recipe starts
- 0-10V fan management with cold/heat call disabled
- Recipe state history on USB
- Automatic summer/winter time management

**Rel. 2.0.2.5**

- 0-10V Cold/hot water management

## APPENDICES

## A.1

## EU DECLARATION OF CONFORMITY

LA PRESENTE DICHIARAZIONE DI CONFORMITA' E' RILASCIATA SOTTO LA RESPONSABILITA' ESCLUSIVA DEL FABBRICANTE:  
**THIS DECLARATION OF CONFORMITY IS ISSUED UNDER THE EXCLUSIVE RESPONSIBILITY OF THE MANUFACTURER:**



PEGO S.r.l. Via Piacentina 6/b, 45030 Occhiobello (RO) – Italy –  
 Società soggetta all'attività di direzione e coordinamento di Castel S.r.l.

## DENOMINAZIONE DEL PRODOTTO IN OGGETTO / DENOMINATION OF THE PRODUCT IN OBJECT

MOD.: VISION TOUCH PAN (cod. 200VT100PAN1)

IL PRODOTTO DI CUI SOPRA E' CONFORME ALLA PERTINENTE NORMATIVA DI ARMONIZZAZIONE DELL'UNIONE EUROPEA:  
**THE PRODUCT IS IN CONFORMITY WITH THE RELEVANT EUROPEAN HARMONIZATION LEGISLATION:**

Direttiva Bassa Tensione (LVD): 2014/35/UE  
 Low voltage directive (LVD): 2014/35/EU

Direttiva EMC: 2014/30/UE  
 Electromagnetic compatibility (EMC): 2014/30/EU

LA CONFORMITA' PRESCRITTA DALLA DIRETTIVA E' GARANTITA DALL'ADEMPIMENTO A TUTTI GLI EFFETTI DELLE SEGUENTI NORME:  
**THE CONFORMITY REQUIRED BY THE DIRECTIVE IS GUARANTEED BY THE FULFILLMENT TO THE FOLLOWING STANDARDS:**

Norme armonizzate: EN 61010-1:2010, EN 61326-1:2013  
 European standards: EN 61010-1:2010, EN 61326-1:2013

Firmato per nome e per conto di:  
 Signed for and on behalf of:

Luogo e Data del rilascio:  
 Place and Date of Release:

Pego S.r.l.  
 Martino Villa  
 Presidente

Occhiobello (RO), 01/01/2022

The **VISION TOUCH PAN** electronic controllers are covered by a 24-months warranty against all manufacturing defects as from the date indicated on the product ID code.

In case of defect the product must be appropriately packaged and sent to our production plant or to any authorized Service Center with the prior request of the Return Authorization Number.

Customers are entitled to have defective products repaired, spare parts and labour included. The costs and the risks of transport are at the total charge of the Customer. Any warranty action does not extend or renew its expiration.

The Warranty does not cover:

- Damages resulting from tampering, impact or improper installation of the product and its accessories.
- Installation, use or maintenance that does not comply with the instructions provided with the product.
- Repair work carried out by unauthorized personnel.
- Damage due to natural phenomena such as lightning, natural disasters, etc...

In all these cases the costs for repair will be charged to the customer.

The intervention service in warranty can be refused when the equipment is modified or transformed.

Under no circumstances **Pego S.r.l.** will be liable for any loss of data and information, costs of goods or substitute services, damage to property, people or animals, loss of sales or earnings, business interruption, any direct, indirect, incidental, consequential, damaging, punitive, special or consequential damages, in any way whatsoever caused, whether they are contractual, extra contractual or due to negligence or other liability arising from the use of the product or its installation.

Malfunction caused by tampering, bumps, inadequate installation automatically declines the warranty. It is compulsory to observe all the instructions in this manual and the operating conditions of the product.

**Pego S.r.l.** disclaims any liability for possible inaccuracies contained in this manual if due to errors in printing or transcription.

**Pego S.r.l.** reserves the right to make changes to its products which it deems necessary or useful without affecting its essential characteristics.

Each new release of the Pego product user manual replaces all the previous ones.

As far as not expressly indicated, is applicable the Law and in particular the art. 1512 C.C. (Italian Civil Code).

For any controversy is elected and recognized by the parties the jurisdiction of the Court of Rovigo.







**PEGO s.r.l.**  
**Via Piacentina, 6/b 45030 Occhiobello (RO) – ITALY**  
**Tel. +39 0425 762906**  
**e-mail: [info@pego.it](mailto:info@pego.it) – [www.pego.it](http://www.pego.it)**

**TECHNICAL ASSISTANCE**  
**Tel. +39 0425 762906 e-mail: [tecnico@pego.it](mailto:tecnico@pego.it)**

Distributor: