EVF 300 series

Controllers for electric bread and pizza ovens, with touch-keys, in split version and which can be integrated into the unit.

Installer manual| ENGLISH

Code 144F300E114

Important

Read this document thoroughly before installation and before use of the device and follow all recommendations; keep this document with the device for future consultation.

Only use the device in the way described in this document; do not use the same as a safety device.

Disposal

The device must be disposed of in compliance with local Standards regarding the collection of electric and electronic equipment.

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1 INTRODUCTION

1.1 Introduction

EVF 300 series is a range of elegant controllers for the management of electric bread and pizza ovens.

They are available in the split version and can be integrated both mechanically and aesthetically into the unit; the user interface is made up from two larger-than-average displays, eleven touch-keys and guarantees an IP65 protection rating, for easy cleaning.

The controllers can independently manage the power supplied from the top and that supplied from the floor and the temperature of the top and that of the floor.

They have a clock (for weekly programmed switch-on), complete steam management (generation, injection and venting), both in automatic and manual modes, management of 9 cooking programs and energy saving strategies.

Installation is envisioned on rear of panel with biadhesive tape and guarantees the absence of thickness once installed in the unit.

1.2 Summary table of the models available, the main features and the purchase codes

The following table illustrates the models available.

Models available:	EVF318	EVF328

The following table illustrates the main features of the devices.
" / " indicates the feature can be set via a configuration parameter.

User interface (without cover fixed onto a Plexiglas sheet):	*EVF318*	*EVF328*
110.0 x 250.0 mm (4.330 x 24.999 cm; L x H)	•	•
2custom 3 + 4 digit displays with function icon.	•	•
number of keys (touch-key)	11	11
protection rating	IP65	IP65
Control module (without cover):	*EVF318*	*EVF328*
166.0 x 116.0 mm (6.535 x 11.598 cm; L x H)	•	•
protection rating	IP00	IP00
Connections:	*EVF318*	*EVF328*
fixed screw terminal board, removable screw terminal board	•	•
Power:	*EVF318*	*EVF328*
115... 230 VAC	•	•
Analogue inputs:	*EVF318*	*EVF328*
chamber probe/top probe	J/K thermocouple	J/K thermocouple
top probe	J/K thermocouple	J/K thermocouple
steam probe	J/K thermocouple	J/K thermocouple
Digital inputs:	*EVF318*	*EVF328*
door micro switch	•	•
multi-function	•	•

circuit breaker protection	•	•
electric absorption protection	•	•
Digital outputs:	*EVF318*	*EVF328*
steam injection	8 A res. @ 250 VAC electro-mechanical relay	8 A res. @ 250 VAC electro-mechanical relay
steam generator	8 A res. @ 250 VAC electro-mechanical relay	8 A res. @ 250 VAC electro-mechanical relay
vent	8 A res. @ 250 VAC electro-mechanical relay	8 A res. @ 250 VAC electro-mechanical relay
extraction hood/multi-function output	16 A res. @ 250 VAC electro-mechanical relay	16 A res. @ 250 VAC electro-mechanical relay
technical compartment/switch-on/off fan	8 A res. @ 250 VAC electro-mechanical relay	8 A res. @ 250 VAC electro-mechanical relay
top	8 A res. @ 250 VAC electro-mechanical relay	12 V, 30 mA solid state relay
floor	8 A res. @ 250 VAC electro-mechanical relay	12 V, 30 mA solid state relay
chamber light	16 A res. @ 250 VAC electro-mechanical relay	16 A res. @ 250 VAC electro-mechanical relay
Communication ports:	*EVF318*	*EVF328*
TTL type serial port	•	•
RS-48 serial port with MODBUS communication protocol	•	•
Other features:	*EVF318*	*EVF328*
clock	•	•
signal buzzer and alarm	•	•
management of the power distributed at the top and that distributed at the floor independently from each other.	•	•
management of the temperature of the top and the floor independently from each other	•	•

"cooking timer" function	•	•
“programs” function	•	•
"weekly programmed switch-on" function	•	•
“energy saving” function	•	•
"quick heating" function	•	•
configuration parameters access password	•	•
restoring the factory settings	•	•

For further information, see chapter 19 “TECHNICAL DATA”.

The following table illustrates the purchase codes.

Purchase codes:	EVF318J9	EVF328J9

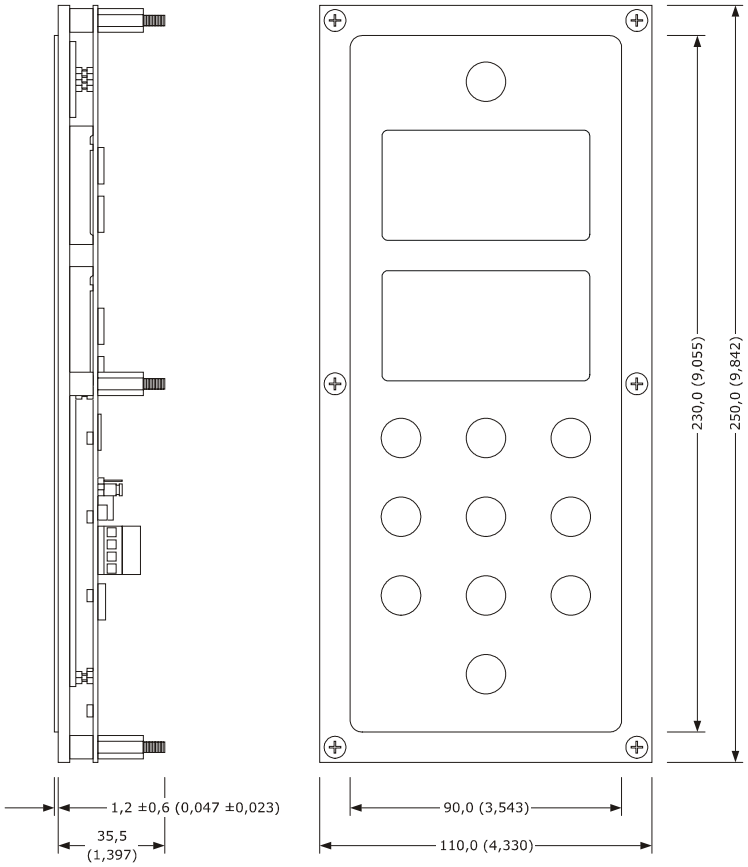
For further models, contact the EVCO sales network.

2 DIMENSIONS AND INSTALLATION

2.1 User interface dimensions and installation

The following drawing illustrates the devices' user interface dimensions; these are expressed in mm (in).

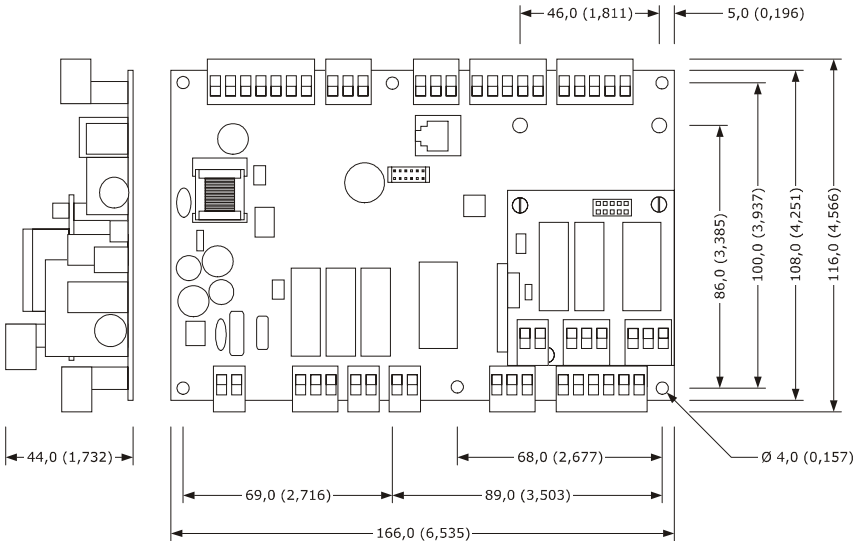
Installation is envisioned at the rear of the panel with biadhesive tape.



2.2 Control module dimensions and installation

The following drawing illustrates the devices' control module dimensions; these are expressed in mm (in).

Installation is envisioned on a flat surface, with shims.



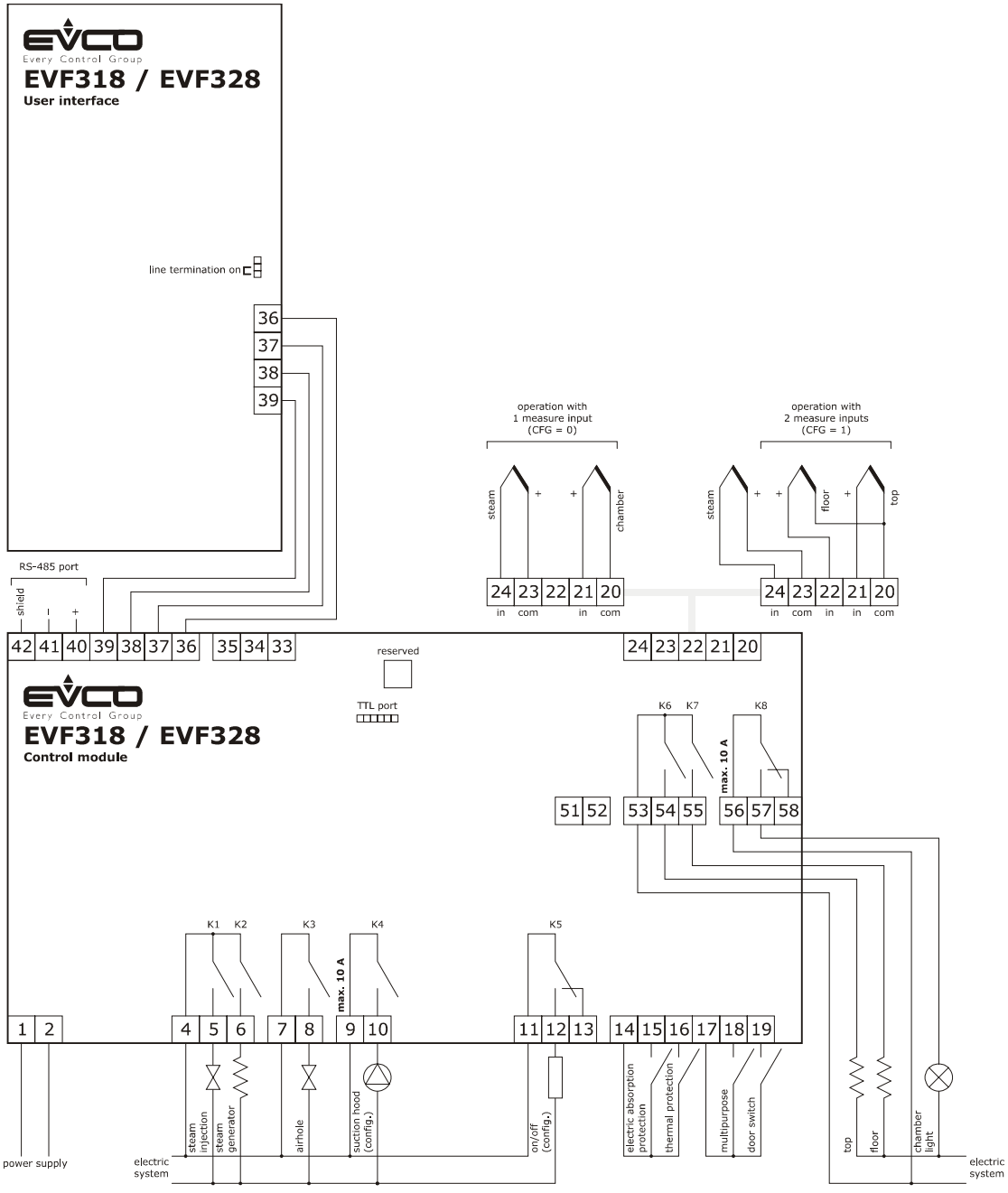
2.3 Installation warnings

- make sure that the device work conditions (temperature of use, humidity, etc.) lie within the limits indicated; see chapter 19 "TECHNICAL DATA"
- do not install the device near to any heat sources (heating elements, hot air ducts etc.), equipment containing powerful magnets (large diffusers, etc.), areas affected by direct sunlight, rain, humidity, excessive dust, mechanical vibrations or shocks.
- any metal parts in proximity of the control module must be at a distance such that they do not compromise the safety distances.
- in compliance with Safety Standards, the device must be installed correctly and in a way to protect against any contact with electric parts; all parts that ensure protection must be fixed in a way that they cannot be removed without the use of tools.

3 ELECTRIC CONNECTION

3.1 Electric connection

The following drawing illustrates the devices' electric connection.



The utility managed by the K4 digital output, depends on the configuration parameter u1, as follows:

- extraction hood (parameter u1 = 0, factory setting)
- multifunction (u1 = 1).

The utility managed by the K5 digital output, depends on the configuration parameter u11, as follows:

- technical compartment fan (parameter u11 = 0, factory setting)
- switch-on/off (u11 = 1).

For the settings relative to the configuration parameters, see chapter 14 “CONFIGURATION”.

The TTL port is the communication port with the EVKEY programming key.

The RS-485 port is the communication port with the following EVCO products:

- parameters Manager set-up software system
- device for recording data and to download recorded data (via USB) EVUSBREC01.
- RICS plants monitoring and surveillance systems

The port must not be used simultaneously with more than one of these products.

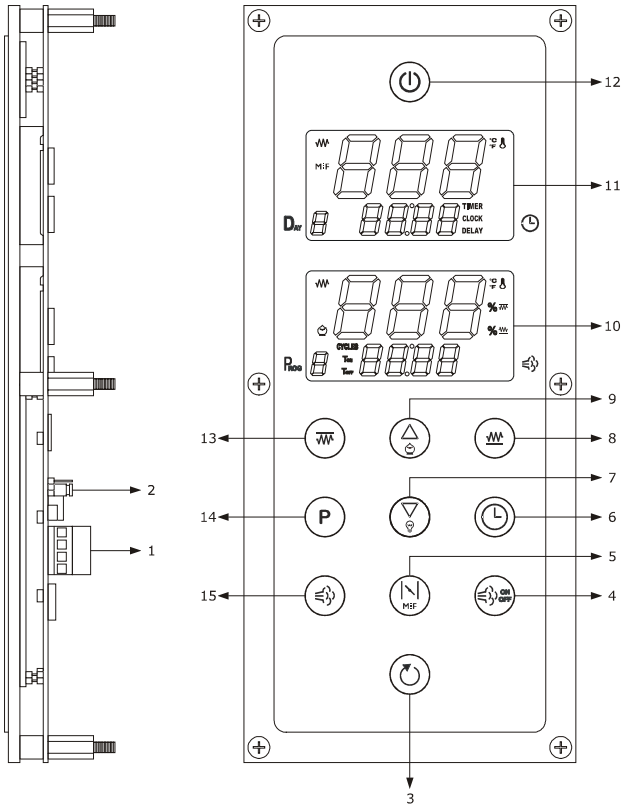
3.2 Warnings for the electric connection

- do not use electric or pneumatic screwdrivers on the device terminal board
- if the device has been taken from a cold to hot place, humidity could condense inside; wait about 1 hour before powering it
- make sure that the power supply voltage, the frequency and the device electric power, correspond with those of the local power supply; see chapter 19 "TECHNICAL DATA"
- disconnect the device power supply before proceeding with any type of maintenance
- position the power cables as far away as possible from the signal cables
- the terminating resistor must be connected in order to reduce the reflections on the signal transmitted along the cables that connect the user interface to the control model.
- for repairs and information regarding the device, contact the EVCO sales network.

4 DESCRIPTION

4.1 Description of the user interface

The following drawing illustrates the aspect of the devices' user interface.



The following table illustrates the meaning of devices' control module parts.

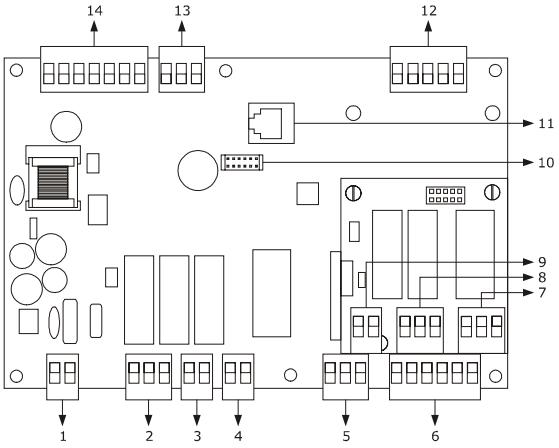
PART	MEANING
1	communication port with the control module
2	termination resistance
3	"START/STOP" key
4	"STEAM GENERATOR" key
5	"VENT" key
6	"CLOCK" key
7	"DECREASE" key, hereon call "DOWN" key
8	"FLOOR" key
9	"INCREASE" key, hereon call "UP" key
10	"LOWER" display

11	"UPPER" display
12	"ON/OFF" key, herein called also "ON/STAND-BY" key
13	"TOP" key
14	"PROGRAMS" key
15	“STEAM INJECTION” key

For further information, see the next chapters.

4.2 Description of the control module

The following drawing illustrates the aspect of the devices' control module.



The following table illustrates the meaning of devices' control module parts.

PART	MEANING
1	power supply
2	K1 and K2 digital outputs
3	K3 digital output
4	K4 digital output
5	digital output K5
6	digital inputs
7	K8 digital output
8	K7 digital output
9	digital output K6

10	TTL port
11	reserved
12	analogue inputs
13	reserved
14	RS-485 port and communication port with user interface

5 COMMISSIONING

5.1 Commissioning

Operate as indicated:

1. Install the device using the methods illustrated in the 2 "DIMENSIONS AND INSTALLATION" chapter, following all warnings given in the 3.2 "Installation warnings" paragraph.
2. Connect the device electrically using the methods illustrated in the 3 "ELECTRIC CONNECTION" chapter, following all warnings given in the 3.2 "Warning for electric connection" paragraph, without connecting the power supply and the mains electricity.
3. Connect the device power supply: an internal test will be started.
   The test typically requires a few seconds.
4. If, at the conclusion of the test, a display shows flashing "**rtc**" and the device emits an intermittent sound, the day of the week and the time must be set; see paragraph 14.1 "Setting the day of the week and time".
5. Configure the device with the procedure illustrated in paragraph 14.5 "Setting the configuration parameters". The following table illustrates the meaning of the configuration parameters; the parameters are listed with the order, according to which, it is appropriate that the device is configured.

PARAM.	MEANING	FACTORY SETTING
CFG	type of operation 0 = with one analogue input (chamber probe, i.e. with management of the power supplied at the top and at the floor independently from each other.) 1 = with two analogue inputs (top and floor probe, i.e. with management of the temperature of the top and at the floor independently from each other.)	0
P0	probe type 0 = thermocouple J 1 = thermocouple K	0
P2	unit of measurement 0 = °C 1 = °F	0
SP	work set-point (visible only if the CFG parameter is set at 0)	150 °C
SP1	top set-point (visible only if the CFG parameter is set at 1)	150 °C
SP2	floor set-point (visible only if the CFG parameter is set at 1)	150 °C
Po1	power distributed at top (visible only if the CFG parameter is set at 0)	50 %
Po2	power distributed at floor (visible only if the CFG parameter is set at 0)	50 %
u1	utility managed by the digital output K4 0 = extraction hood 1 = multifunction	0

u11	utility managed by the digital output K5 0 = technical compartment fan 1 = switch-on/off	0

Successively, check that the remaining settings are appropriate; see paragraph 14.7 "List of configuration parameters".

6. Connect to the electric mains.
7. Switch the device on; see the paragraph 6.1 "Device switch-on/off in manual mode".

For further information, see the next paragraphs

6 USER INTERFACE

6.1 Device switch-on/off in manual mode

Operate as follows to switch the device on/off in manual mode:

1. Make sure no procedures are in progress.
2. Hold the"SWITCH-ON/OFF" key down for 1 s.

When the power is switched back on, the device displays the status that it was in at the time it was cut-off.

It is also possible to switch the device off through the multi-function input. If the device has been switched off through the activation of the multi-function input, it cannot be switched on in manual mode (until the input has been deactivated).

6.2 Starting the cooking cycle

Operate as follows to start the cooking cycle:

1. Ensure that the cooking timer is set and that no other procedure is in progress.
2. Press and release the "START/STOP" key: the "**TIMER**" LED will switch on and the bottom part of the "UPPER" display will show the residual count if the cooking timer.

6.3 Stopping the cooking cycle

Operate as follows to stop the cooking cycle:

1. Make sure no procedures are in progress.
2. Hold the "START/STOP" key down for 1 s: the buzzer will be activated for 3 s, the "**TIMER**" LED will switch off and the bottom part of the "UPPER" display will show "**End**" flashing for 3 s.

6.4 The displays

6.4.1 The top part of the "UPPER" display

If the device is on, the top part of the "UPPER" display will show the following information:

- if the CFG parameter is set at 0, the chamber temperature
- if the CFG parameter is set at 1, the top temperature

Also see paragraph P5.

If a cooking cycle is in progress, the top part of the "UPPER" display will show the following information:

- if the CFG parameter is set at 0, the chamber temperature
- if the CFG parameter is set at 1, the top temperature

Also see paragraph P5.

If the "weekly programmed switch-on" has been activated, the top part of the "UPPER" display will be off.

If the device is off, the top part of the "UPPER" display will be off.

6.4.2 The bottom part of the "UPPER" display

If the device is on, the bottom part of the "UPPER" display will show the value of the cooking timer.

If a cooking cycle is in progress, the bottom part of the "UPPER" display will show the residual count of the cooking timer.

If the "weekly programmed switch-on" function has been activated, the bottom part of the "UPPER" display will show the switch-on time of the next weekly programmed switch-on.

If the device is off, the bottom part of the "UPPER" display will show the following information:

- if the c8 parameter set at 0, will be off
- if the c8 parameter set at 1, the time

6.4.3 The top part of the "LOWER" display

If the device is on, the top part of the "LOWER" display will show the following information:

- if the CFG parameter is set at 0, the power distributed at the top alternately to the power distributed at the floor for 10 s
- if the CFG parameter is set at 1, the floor temperature

Also see paragraph P6.

If a cooking cycle is in progress, the top part of the "LOWER" display will show the following information:

- if the CFG parameter is set at 0, the power distributed at the top alternately to the power distributed at the floor for 10 s
- if the CFG parameter is set at 1, the floor temperature

Also see paragraph P6.

If the "weekly programmed switch-on" has been activated, the top part of the "LOWER" display will be off.

If the device is off, the top part of the "LOWER" display will be off.

6.4.4 The bottom part of the "LOWER" display

If the device is on, the bottom part of the "LOWER" display will show the value of the cooking timer.

If a cooking cycle is in progress, the bottom part of the "LOWER" display will show the following information:

- if parameter t0 is set at 0, the minimum duration of steam injector switch-on
- if the parameter t0 is set at 1, the number of steam injections in cyclic mode.

If the "weekly programmed switch-on" function has been activated, the bottom part of the "LOWER" display will be off.

If the device is off, the bottom part of the "LOWER" display will be off.

6.5 Silencing the buzzer

Operate as follows to silence the buzzer:

1. Make sure no procedures are in progress.
2. Press and release the key.

7 MANAGEMENT OF UTILITIES

7.1 Steam injection

7.1.1 Preliminary notes

The steam injection activation mode depends on parameter t0, as follows:

- if the parameter t0 è is set at 0, pressing and releasing the "STEAM INJECTION" key will cause the injection of steam for the time established with parameter tOn or for the entire time the key is pressed.
- if parameter t0 is set at 1,pressing and releasing the "STEAM INJECTION" key will activate steam injection in cyclic mode (at maximum for the number of cycles established with the nCY parameter or until the key is pressed and released again; the time defined with the tOn parameter establishes the switch-on duration of the injector and that established with the tOF parameter, switch-off) or will cause steam injection for the entire time the key is pressed.

The steam injection activation consent mode depends on parameter P4, as follows:

- if parameter P4 is set at 0, steam injection will be allowed if the steam generator has been switched on.
- if parameter P4 is set at 1, steam injection will be allowed if the steam generator is on and the multi-function input has been activated (until the input has been deactivated and on condition that the parameter i5 is set at 1).
- if parameter P4 is set at 2, steam injection will be allowed if the temperature regulation of the steam has been activated and the steam temperature is above that established with the SPS parameter (until the temperature drops below that established with parameter t4).

7.1.2 Quick setting of the time tOn (only if the parameter t0 is set at 0)

The time unit of measurement of the time tOn is the second.

Operate as follows to set the time tOn:

1. Ensure that the device is switched on and that no other procedure is in progress.
2. Hold the "STEAM GENERATOR" key down for 1 s: the "**TON**" LED will flash and the bottom part of the "LOWER" display will show the flashing tOn time value.
3. Press and release the UP or DOWN key within 15 s to set the value of the time tOn.
4. Press and release the "STEAM GENERATOR" key or do not operate for 15 sec: the "**TON**" LED and the bottom part of the "LOWER" display will remain on and the device will exit the procedure.

Operate as follows to exit the procedure before the operation is complete:

5. Do not operate for 15 sec (any changes will be saved).

It is also possible to set the time tOn via the tOn parameter.

7.1.3 Quick setting of the tOn time, tOF time and the nCY number (only if parameter t0 is set at 1)

The time unit of measurement of the time tOn and time tOF is the second.

Operate as follows to set the time tOn:

1. Ensure that the device is switched on and that no other procedure is in progress.
2. Hold the "STEAM GENERATOR" key down for 1 s: the "**TON**" LED will flash and the bottom part of the "LOWER" display will show the flashing tOn time value.
3. Press and release the UP or DOWN key within 15 s to set the value of the time tOn.

Operate as follows to set the time tOf:

4. Press and release the "STEAM GENERATOR" key during setting of the time tOn: the "**TON**" LED will switch off, the "**TOFF**" LED will flash and the bottom part of the "LOWER" display will show the flashing tOF time value.
5. Press and release the UP or DOWN key within 15 s to set the value of the time tOF.

Operate as follows to set the number nCY:

6. Make sure that parameter t6 is set at 1.
7. Press and release the "STEAM GENERATOR" key during setting of the time tOF: the "**TOFF**" LED will switch off, the "**CYCLES** LED will flash and the bottom part of the "LOWER" display will show the flashing nCY number value.
8. Press and release the UP or DOWN key within 15 s to set the value of the number nCY.
9. Press and release the "STEAM GENERATOR" key or do not operate for 15 sec: the "**CYCLES**" LED and the bottom part of the "LOWER" display will remain on and the device will exit the procedure.

Operate as follows to exit the procedure before the operation is complete:

10. Do not operate for 15 sec (any changes will be saved).

It is also possible to set the tOn time through the tOn parameter, the tOF time through the tOF parameter and the nCY number through the nCY parameter.

It is also possible to set the time tOn via the tOn parameter.

7.1.4 Manual activation of steam injection (only if parameter t0 is set at 0)

Operate as follows to activate steam injection in manual mode:

1. Make sure that the device is on, that there is no other procedure in progress and that steam injection is allowed (see parameter P4).
2. Press and release the "STEAM INJECTION" key: the steam injector will be switched on for the time established with the tOn parameter or for the entire duration the key is pressed.

7.1.5 Activation of steam injection in cyclical mode(only if parameter t0 is set at 1)

Operate as follows to activate steam injection in cyclical mode:

1. Make sure that the device is on, that there is no other procedure in progress and that steam injection is allowed (see parameter P4).
2. Press and release the "STEAM INJECTION" key: the steam injector will be switched on in cyclic mode (at maximum for the number of cycles established with the nCY parameter or until the key is pressed and released again. The time defined with the tOn parameter establishes the switch-on duration of the injector and that defined with the tOF parameter that of switch-off) or for the entire duration that the key is pressed.

7.2 Steam generator

7.2.1 Preliminary notes

Steam generator activity depends mainly on parameter P4, as follows:

- if parameter P4 is set at 0 or 1, pressing and releasing the "STEAM GENERATOR" key cause the steam generator to switch on (until the key is pressed and released again)
- if parameter P4 is set at 2, pressing and releasing the "STEAM GENERATOR" key will activate steam temperature adjustment (until the key is pressed and released again; the temperature defined with the SPS parameter establishes the steam set-point, that defined with the t3 parameter, the differential and that established with the t4 parameter, that below which steam injection is disabled).

7.2.2 Switching on the steam generator (only if parameter P4 is set at 0 or 1)

Operate as follows to switch the steam generator on:

1. Ensure that the device is switched on and that no other procedure is in progress.
2. Press and release the "STEAM GENERATOR" key: the steam generator will be on (until the key is pressed and released again).

7.2.3 Activation of steam injection temperature adjustment (only if parameter P4 is set at 2)

Operate as follows to activate the steam temperature adjustment:

1. Ensure that the device is switched on and that no other procedure is in progress.
2. Press and release the "STEAM GENERATOR" key: the steam temperature adjustment will be activated (until the key is pressed and released again).

7.3 Vents

7.3.1 Preliminary notes

Pressing and releasing the "VENT" key will cause the activation of the vent (at maximum or the time established with parameter c7 or until the key is pressed and released again).
The vent is also activated for the time established with parameter c6 with the advance defined with parameter c5 on conclusion of the cooking timer count.

7.3.2 Manual activation of the vent

Operate as follows to activate the vent in manual mode:

1. Ensure that the device is switched on and that no other procedure is in progress.
2. Press and release the "VENT" key: the vent will be switched on (at maximum for the time established with parameter c7 or until the key is pressed and released again).

7.3.3 Extraction hood (only if parameter u1 is set at 0)

If the device is on and the parameter i0 is set at 1 or 2, the activation of the door micro switch will cause the extraction hood to switch-on (until the input is deactivated).

7.4 Multi-function output (only if parameter u1 is set at 1)

7.4.1 Preliminary notes

Pressing the "VENT" key for 1 s will cause the multi-function output to switch on (until the key is pressed again for 1 s or until the device is switched off).

7.4.2 Switching on the multi-function output

Operate as follows to switch on the multi-function output:

1. Ensure that the device is switched on and that no other procedure is in progress.
2. Hold the "VENT" key down for 1 s: the "**M:F**" LED will switch on and the multi-function output will be switched-on (until the key is held down again for 1 s or until the device is switched off).

7.4.3 Technical compartment fan (only if parameter u11 is set at 0)

The activity of the technical compartment fan depends mainly on the state of the device, as follows:

- if the device is on, the fan will be on
- if the device is switched off, the fan will be switched off.

The technical compartment fan is off with the delay established with parameter u12 from device switch-off

7.4.4 Output switch-on/off (only if parameter u11 is set at 1)

The activity of the output switch-on/off depends mainly on the state of the device, as follows:

- if the device is on, the output will be on
- if the device is off, the output will be off.

7.5 Top output

If the device is on, top output activity depends mainly on the CFG parameter, as follows:

- if the CFG parameter is set at 0, the distribution of power will be active until the temperature of the chamber has reached the work set-point and will be reactivated when the temperature drops below that established with parameter r0 (i.e. "work set-point - r0"). When the distribution of power is active, the top output is on in cyclic mode, as much as possible when the floor output is off (the time established with parameter c1 establishes the cycle time for switch-on of the output and the power distributed at the top establishes the duration of output switch-on, intended as a percentage of the time established with parameter c1)
- if the CFG parameter is set at 1, the output will be switched-on until the temperature of the top has reached the top set-point and will be switched back on when the temperature falls below that established with parameter r0 (i.e. top set-point - r0").

7.6 Floor output

If the device is on, floor output activity depends mainly on the CFG parameter, as follows:

- if the CFG parameter is set at 0, the distribution of power will be active until the temperature of the chamber has reached the work set-point and will be reactivated when the temperature drops below that established with parameter r0 (i.e. "work set-point - r0"). When the distribution of power is active, the floor output is on in cyclic mode, as much as possible when the floor output is off (the time established with parameter c1 establishes the cycle time for switch-on of the output and the power distributed at the floor establishes the duration of output switch-on, intended as a percentage of the time established with parameter c1)
- if the CFG parameter is set at 1, the output will be switched-on until the temperature of the floor has reached the floor set-point and will be switched back on when the temperature falls below that established with parameter r6 (i.e. top set-point - r6").

7.7 Chamber light

7.7.1 Preliminary notes

Pressing and releasing the "DOWN" key will cause the chamber light to switch on (until the key is pressed and released again or until the device is switched off).

7.7.2 Chamber light switch-on

Operate as follows to switch the chamber light on:

1. Make sure no procedures are in progress.
2. Press and release the "DOWN" key: the chamber light will be switched on (until the key is pressed and released again or when the device is switched off).

8 "COOKING TIMER" FUNCTION

8.1 Preliminary notes

The "cooking timer" function allows to start the residual count of a time.

Start-up of the cooking timer count causes the start-up of the cooking cycle; the interruption of the cooking timer count causes the interruption of the cooking cycle.

The count is displayed in the bottom part of the "UPPER" display; during the count, the "**TIMER**" LED is on.

The vent is activated for the time established with parameter c6 with the advance defined with parameter c5 on conclusion of the cooking timer count.

On conclusion of the cooking timer count, the buzzer is activated for the time established with parameter c4 and the lower part of the "UPPER" display shows flashing "**End**".

If the power supply should be cut-off during the cooking timer count and the duration of the cut-off is less than the time established with parameter r13, on restoring the power supply, the cooking timer count will be re-proposed (if vice versa, the duration of the cut-off is longer than the time established with parameter r13, on restoring the power supply, the cooking timer count will be interrupted).

Finally, using parameters t8 and t9 it is possible to enable a restriction between steam injection and the cooking timer count.

8.2 Setting the cooking timer

The cooking timer is displayed in the hours:minutes format.

Operate as follows to set the hours:

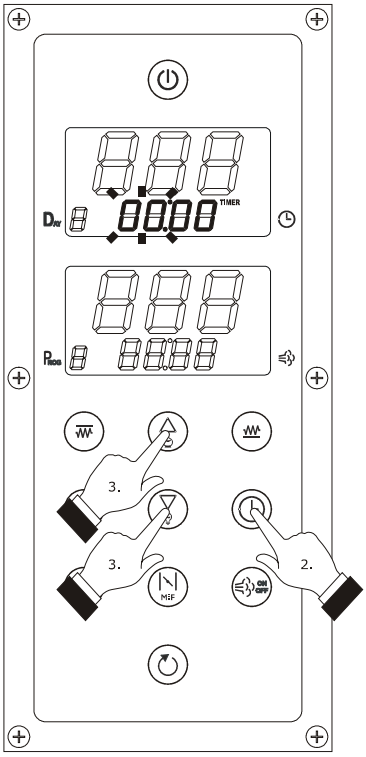
1. Ensure that the device is switched on and that no other procedure is in progress.
2. Press and release the "CLOCK" key: the "**TIMER**" LED will switch on and the bottom part of the "UPPER" display will show the cooking timer count; the hours value will flash.
3. Press and release the UP or DOWN key within 15 s to set the value of the hours.

Operate as follows to set the minutes:

4. Press and release the "CLOCK" key while setting the hours:minutes value will flash.
5. Press and release the UP or DOWN key within 15 s to set the value of the minutes.

Operate as follows to exit the procedure:

6. Press and release the "CLOCK" key while setting the minutes: the "**TIMER**" LED will switch off and then the device will exit the procedure.



Setting the cooking timer

Operate as follows to exit the procedure before the operation is complete:

7. Do not operate for 15 sec (any changes will be saved).

If the cooking timer is set during the count, this modification will not be saved.

8.3 Starting cooking timer count

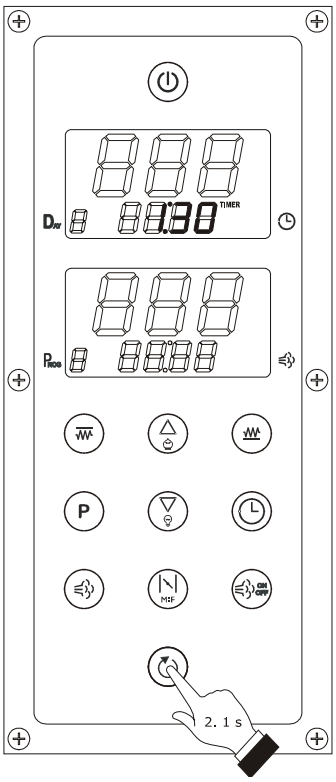
Operate as follows to start the cooking timer count:

1. Ensure that the device is switched on and that no other procedure is in progress.
2. Press and release the "START/STOP" key: the "**TIMER**" LED will switch on and the bottom part of the "UPPER" display will show the residual count if the cooking timer.

8.4 Stopping cooking timer count

Operate as follows to stop the cooking timer count:

1. Make sure no procedures are in progress.
2. Hold the "START/STOP" key down for 1 s: the buzzer will be activated for 3 s, the "**TIMER**" LED will switch off and the bottom part of the "UPPER" display will show "**End**" flashing for 3 s.



Starting cooking timer count

9 "PROGRAMS" FUNCTION

9.1 Preliminary notes

The "programs" function allows to memorise several settings in a program; on program start-up the device will operate with the settings memorised in the same.

Starting the program causes the cooking cycle to start; interruption of the program causes the cooking cycle to be interrupted.

If the CFG parameter is set at 0, the function will allow to memorise the following settings in a program:

- work set-point
- power distributed at the top
- power distributed at the floor
- switch-on duration of the steam injector
- switch-off duration of the steam injector
- number of steam injections in cyclic mode
- cooking timer.

If the CFG parameter is set at 1, the function will allow to memorise the following settings in a program:

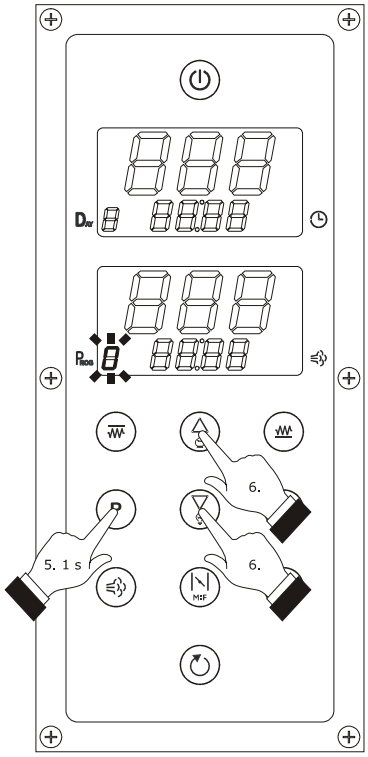
- top set-point
- floor set-point
- switch-on duration of the steam injector
- switch-off duration of the steam injector
- number of steam injections in cyclic mode
- cooking timer.

If a number of steam injections in cyclic mode is envisioned among the settings memorised in the program and on program start-up the generator is off, these will be switched on and the method of consent on activation of the steam injection will depend on parameter P4.

9.2 Memorisation of a program

Operate as follows to memorise a program:

1. Make sure that the device is on, that a cooking cycle is not in progress and no procedure is in progress.
2. Set the work set-point, the top set-point, the floor set-point, the power distributed at the top and that distributed at the floor with the procedures illustrated in chapter 14 "CONFIGURATION".
3. Set the switch-on duration of the steam injector, the switch-off duration of the steam injector and the number of steam injections in cyclic mode with the procedures illustrated in the 7.1 "Steam injection" paragraph.
4. Set the cooking timer with the procedure illustrated in paragraph 8.2 "Setting the cooking timer".
5. Hold the "PROGRAMS" key down for 1 s: the bottom part of the "LOWER" display will show the number of the first program not used; the program number will flash.



Memorising a program

6. Press and release the UP or DOWN key within 15 s to set the number of the program.

7. Hold the "PROGRAMS" key down for 1 s: the device will leave the procedure.

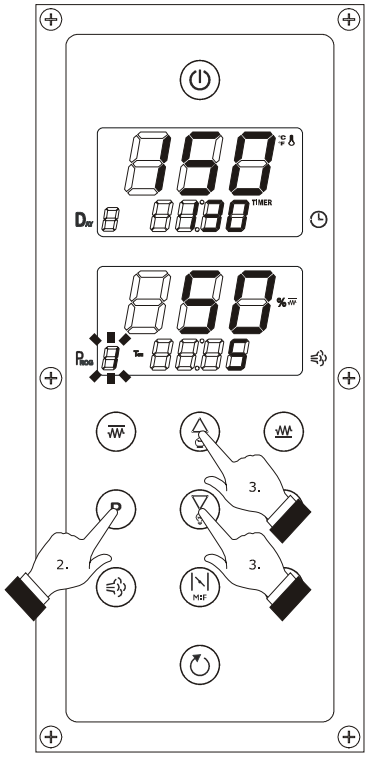
Operate as follows to exit the procedure before the operation is complete:

8. Do not operate for 15 sec (any changes will not be saved).

9.3 Starting a program

Operate as follows to start a program:

1. Make sure that the device is on, that a cooking cycle is not in progress and no procedure is in progress.
2. Press and release the "PROGRAMS" key: the bottom part of the "LOWER" display will show the number of the first program used and the remaining device displays will show the settings memorised in the program; the program number will flash.
   If no program is used, the bottom part of the "LOWER" display will show "**-**" flashing and the device displays will switch off.
3. Press and release the UP or DOWN key within 15 s to select the number of a program.
4. Press and release the "START/STOP" key within 15 s: the number of the program will remain on with fixed light and the program will be started.



Starting a program

Operate as follows to exit the procedure before the operation is complete:

5. Press and release the "PROGRAMS" key or do not operate for 15 s (the program will not be started).

9.4 Interruption of a program

Operate as follows to interrupt a program:

1. Make sure no procedures are in progress.
2. Hold the "START/STOP" key down for 1 s: the buzzer will be activated for 3 s, the "**TIMER**" LED will switch off and the bottom part of the "UPPER" display will show "**End**" flashing for 3 s.

10 "WEEKLY PROGRAMMED SWITCH-ON" FUNCTION

10.1 Preliminary notes

The "weekly programmed switch-on" function allows to program device switch-on and simultaneously start a program; see chapter 9 ""PROGRAMS" FUNCTION".

The function must be activated with the procedure illustrated in paragraph 10.3 "Enabling the "weekly programmed switch-on" function".

The cooking cycle must be started by pressing and releasing the "START/STOP" key.
If parameter r12 is set at 0, the "weekly programmed switch-on" function will not be available.

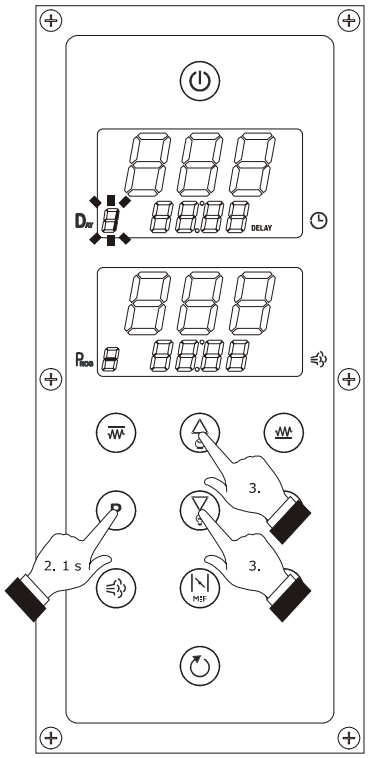
10.2 Setting the switch-on day and time and the program to start

The switch-on day is displayed in the 1... 7 format (number 1 corresponds to Monday); the time is displayed in the 24 h format (hours:minutes).
Operate as follows to set the switch-on day:

1. Make sure that parameter r12 is set at 1, that programs are used, that the device is off and that no procedure is in progress.
2. Hold the "PROGRAMS" key down for 1 s: the "**DELAY**" LED will switch on and the bottom part of the "UPPER" display will show the switch-on day; the day value will flash.
   If no switch-on time is set, the bottom part of the "UPPER" display will only show the switch-on day.
3. Press and release the UP or DOWN key within 15 s to set the value of the day.

Operate as follows to set the program to start-up:

4. Press and release the "PROGRAMS" key while setting the switch-on day: the bottom part of the "LOWER" display will show the number of the first program used; the program number will flash.
   If no program is used, the bottom part of the "LOWER" display will show "**-**" flashing.
5. Press and release the UP or DOWN key within 15 s to select the number of a program.



Setting the switch-on day and time and the program to start

Operate as follows to set the switch-on time:

6. To set the hours, press and release the "PROGRAMS" key while setting the program to be started: the hours value will flash.
7. Press and release the UP or DOWN key within 15 s to set the value of the hours.
8. To set the minutes, press and release the "PROGRAMS" key while setting the hours: the minutes value will flash.
9. Press and release the UP or DOWN key within 15 s to set the value of the minutes.

Operate as follows to set another switch-on day:

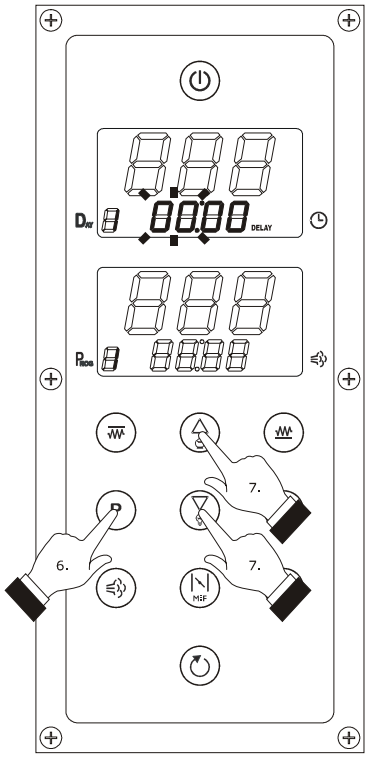
10. Press and release the "PROGRAMS" key while setting the minutes: the day value will flash.
11. Repeat the 3 points... 9.

Operate as follows to exit the procedure:

12. Hold the "PROGRAMS" key down for 1 s: the **DELAY** LED will switch off.

Operate as follows to exit the procedure before the operation is complete:

13. Do not operate for 60 sec (any changes will not be saved).

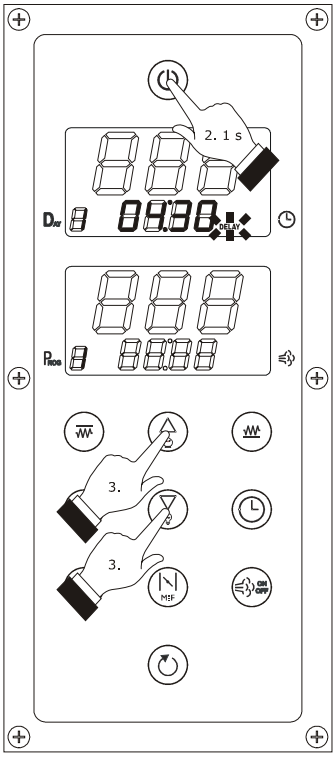


Setting the switch-on day and time and the program to start

10.3 Enabling the "weekly programmed switch-on" function

Operate as follows to activate the "weekly programmed switch-on":

1. Make sure that the days and switch-on times and the programs to start are set.
2. Switch the device off by pressing the "ON/STAND-BY" key for 1 s: the "**DELAY**" LED will flash, the lower part of the "UPPER" display will show the day and time of switch-on of the next weekly programmed switch-on and the bottom part of the "LOWER" display will show the number of the program to start.
3. Press and release the "UP" or "DOWN" key within 15 s to select a weekly programmed switch-on.
4. Hold the "START/STOP" key down for 1 s within 15 s: the "**DELAY**" LED will remain on, the device displays will show the switch-on day and time of the next weekly programmed switch-on and the number of the program to start and the device will exit the procedure.



Enabling the "weekly programmed switch-on" function

If a weekly programmed switch-on is modified by pressing and releasing the "PROGRAMS" key, of the "UP" key and the "DOWN" key after the function has been activated, this modification will not be saved.

Operate as follows to exit the procedure before the operation is complete:

5. Press and release the "ON/STAND-BY" key or do not operate for 15 s (any modifications will not be saved) .

10.4 Deactivating the "weekly programmed switch-on" function

Operate as follows to deactivate the "weekly programmed switch-on":

1. Make sure no procedures are in progress.
2. Hold the "START/STOP" key down for 1 s: the **DELAY** LED will switch off.

11 "ENERGY SAVING" FUNCTION

11.1 Preliminary notes

The "energy saving" function allows to reduce the electric absorption of the top output and the floor output, accessing one when the other is off.

The "energy saving" function actuation depends mainly on the CFG paragraph as follows:

- if the CFG parameter is set at 0 and the c0 parameter is not set at 1, activation of the function will cause automatic adaptation of the power distributed at the floor such to guarantee that the sum of the power value distributed at the top with that distributed at the floor is 100 (when the function is in progress, the power setting distributed at the top will cause automatic adaptation of the power distributed at the floor (and vice versa) so as to guarantee that the sum of the two power values is always 100). If the CFG parameter is set at 0 and the parameter c0 is set at 1,when the function is in progress the duration of the top and floor output switch-ons will be reduced by the percentage established with the parameter c13.
- if the CFG parameter is set at 1, when the function is in progress and the simultaneous switch-on of the top and floor outputs is envisioned, the outputs are switched-on alternately in cyclic mode (the time defined with parameter c1 establishes the cycle time for outputs switch-on as well as double duration of the switch-on of each output).

11.2 Activation of the "Energy saving" function

Operate as follows to activate the "energy saving" function:

1. Make sure that the device is not off, that no other procedure is in progress and ensure that the "quick heating" function is not in progress
2. Press and release the "UP" key: the LED will switch-on and the function will be activated (until a key is pressed and released again or at maximum for the time established with parameter c10).

If the device is on and the parameter i15 is set at 1, the activation of the electric absorption protection input will cause the function to be activated (until the input is deactivated).

If the device is switched-off when the "energy saving" function is in progress, on successive switch-on the function will not be re-proposed; if the power supply should be cut-off when the function is in progress, when the same is restored, the function will be re-proposed and the time count established with c10 will be started from the beginning.

12 "QUICK HEATING" FUNCTION (only if the CFG parameter is set at 0)

12.1 Preliminary notes

The "quick heating" function allows to reach a temperature as quickly as possible, distributing the maximum power to the top and floor.

12.2 Activation of the "quick heating" function

If parameter c2 is set at 1 and the "energy saving" function is not in progress, device switch-on will cause activation of the "quick heating" function (until the chamber temperature reaches that established with parameter c3 or until the device is switched off).

If the power supply should be cut-off when the "quick heating" function is in progress, the function will be re-proposed when the power supply is restored.

13 "OVEN AT TEMPERATURE" FUNCTION

The "oven at temperature" function allows to indicate the working temperature has been reached, by activating a buzzer for 4 s.

If the CFG parameter is set at 0, the buzzer will be activated on setting the work set-point; if the CFG parameter is set at 1, the buzzer will be activated on reaching both the top set-point and the floor set-point.

14 CONFIGURATION

14.1 Setting the day of the week and the time

The day of the week is displayed in the 1...7 format (number 1 corresponds to Monday);the time is displayed in the 24 h format (hours:minutes).

Operate as follows to set the day of the week:

1. Make sure there is no cooking cycle or any procedure in progress.
2. Hold the "CLOCK" key down for 1 s: the "**CLOCK**" LED will switch on and the bottom part of the "UPPER" display will show the day of the week and the time; the day of the week value will flash.
3. Press and release the UP or DOWN key within 15 s to set the value of the day.

Operate as follows to set the hours:

4. Press and release the "CLOCK" key while setting the day of the week: the hours value will flash.
5. Press and release the UP or DOWN key within 15 s to set the value of the hours.

Operate as follows to set the minutes:

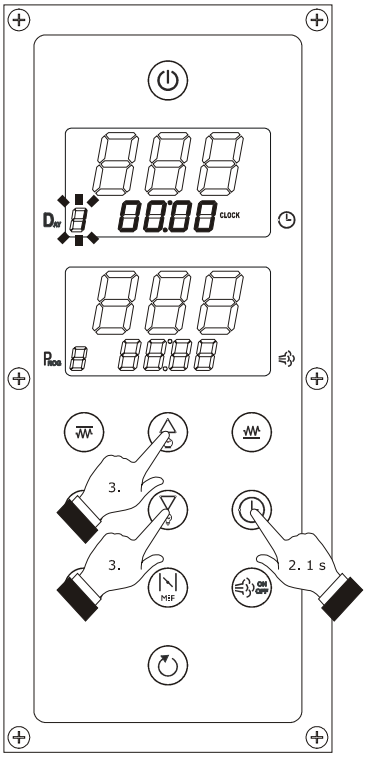
6. Press and release the "CLOCK" key while setting the hours: the minutes value will flash.
7. Press and release the UP or DOWN key within 15 s to set the value of the minutes.

Operate as follows to exit the procedure:

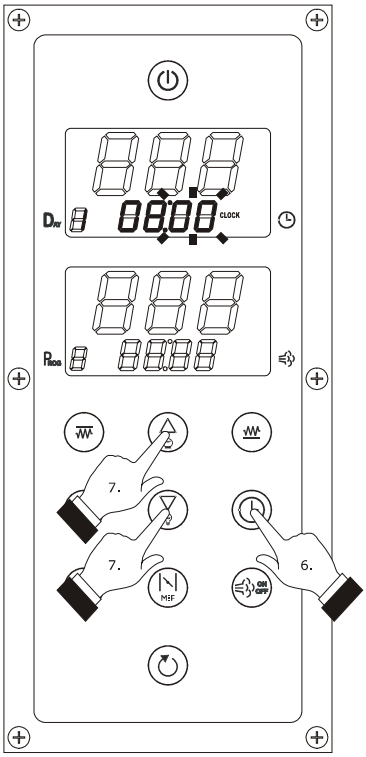
8. Press and release the "CLOCK" key while setting the minutes: the "**CLOCK**" LED will switch off and then the device will exit the procedure.

Operate as follows to exit the procedure before the operation is complete:

9. Do not operate for 15 sec (any changes will be saved).



Setting the day of the week and the time



Setting the day of the week and the time

14.2 Setting the work set-point (only if the CFG parameter is set at 0)

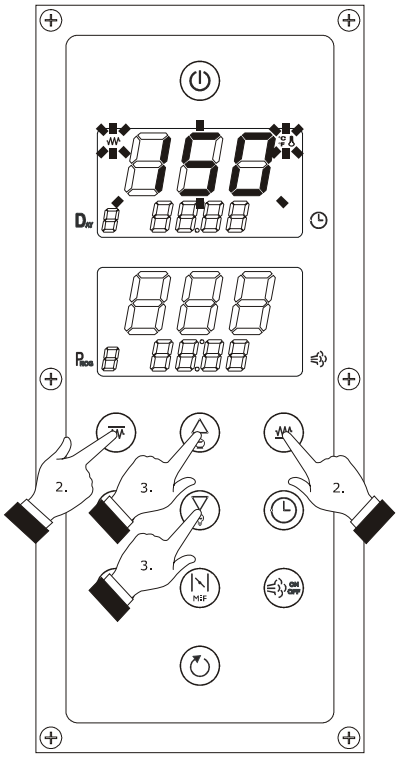
Operate as follows to set the work set-point:

1. Ensure that the device is switched on and that no other procedure is in progress.
2. Press and release the "TOP" key or the "FLOOR" key: the LED and the LED of the "UPPER" display will flash and the top part of the display will show the flashing set-point value.
3. Press and release the "UP" or "DOWN" key within 15 s to set the set-point value, see also parameters r1 and r2.
4. Press and release the "TOP" key or the "FLOOR" key twice or do not operate for 15 s: the " LED and the LED" will switch off and then the device will exit the procedure.

Operate as follows to exit the procedure before the operation is complete:

5. Do not operate for 15 sec (any changes will be saved).

The working set-point can also be set via parameter SP.



Setting the work set-point

14.3 Setting the top set-point and the floor set-point (only if the CFG parameter is set at 1)

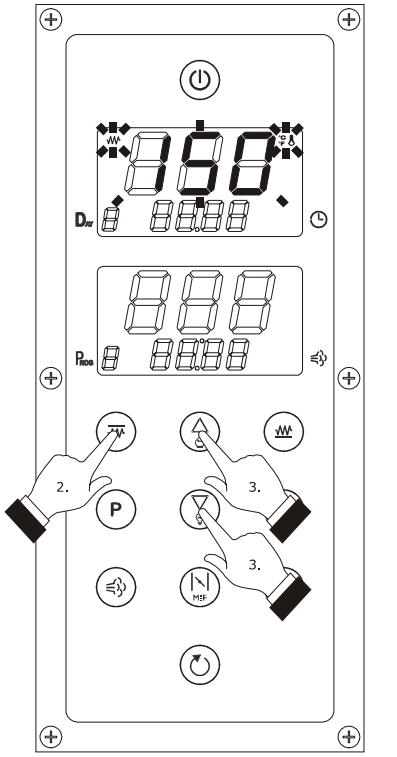
Operate as follows to set the top set-point:

1. Ensure that the device is switched on and that no other procedure is in progress.
2. Press and release the "TOP" key: the LED and the LED of the "UPPER" display will flash and the top part of the display will show the flashing set-point value.
3. Press and release the "UP" or "DOWN" key within 15 s to set the set-point value, see also parameters r1 and r2.
4. Press and release the "TOP" key or do not operate for 15 s: the " LED and the LED" will switch off and then the device will exit the procedure.

Operate as follows to exit the procedure before the operation is complete:

5. Do not operate for 15 sec (any changes will be saved).

It is also possible to set the top set-point via parameter SP1.



Setting the top set-point

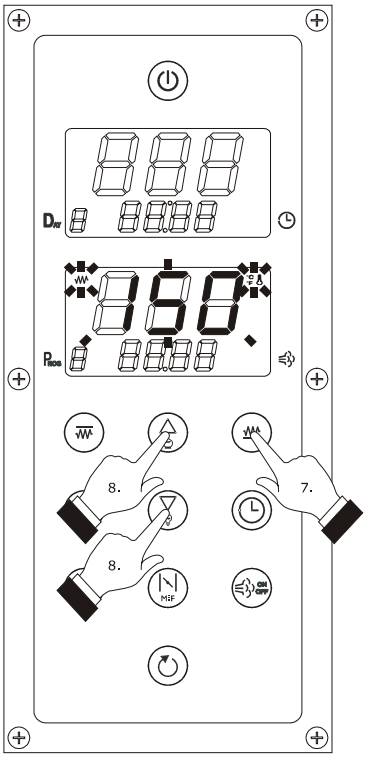
Operate as follows to set the floor set-point:

6. Ensure that the device is switched on and that no other procedure is in progress.
7. Press and release the "FLOOR" key: the LED and the LED of the "LOWER" display will flash and the top part of the display will show the flashing set-point value.
8. Press and release the "UP" or "DOWN" key within 15 s to set the set-point value, see also parameters r7 and r8.
9. Press and release the "FLOOR" key or do not operate for 15 s: the "LED and the LED" will switch off and then the device will exit the procedure.

Operate as follows to exit the procedure before the operation is complete:

10. Do not operate for 15 sec (any changes will be saved).

It is also possible to set the floor set-point via parameter SP2.



Setting the floor set-point

14.4 Setting the power distributed at the top and that distributed at the floor (only if the CFG parameter is set at 0)

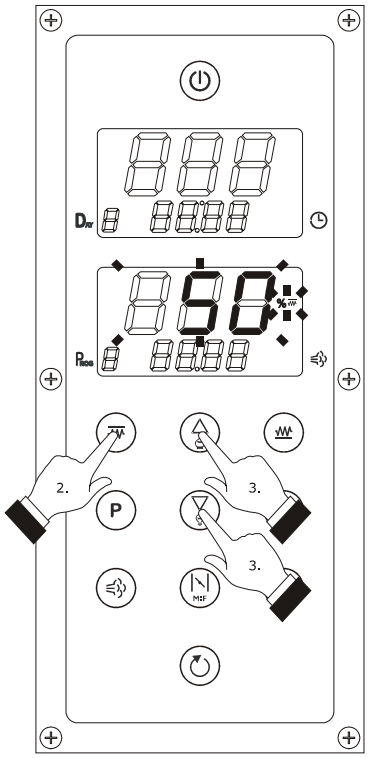
Operate as follows to set the power distributed at the top:

1. Ensure that the device is switched on and that no other procedure is in progress.
2. Press and release the "TOP" key twice: the LED of the "LOWER" display will flash and the top part of the display will show the flashing power value.
3. Press and release the "UP" or "DOWN" key within 15 s to set the power value, see also parameters c0 and c1.
4. Press and release the "TOP" key or do not operate for 15 s: the LED will switch off and then the device will exit the procedure.

Operate as follows to exit the procedure before the operation is complete:

5. Do not operate for 15 sec (any changes will be saved).

It is also possible to set the power distributed at the top via the parameter Po1.



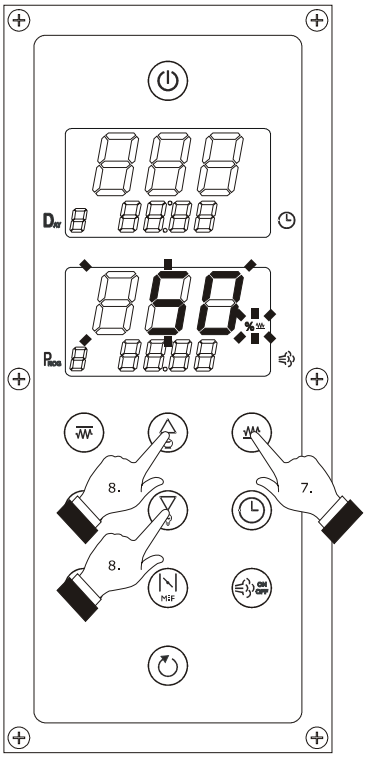
Setting the power distributed at the top

Operate as follows to set the power distributed at the floor:

6. Ensure that the device is switched on and that no other procedure is in progress.
7. Press and release the "FLOOR" key twice: the % LED of the "LOWER" display will flash and the top part of the display will show the flashing power value.
8. Press and release the "UP" or "DOWN" key within 15 s to set the power value, see also parameters c0 and c1.
9. Press and release the "FLOOR" key or do not operate for 15 s: the % LED will switch off and then the device will exit the procedure.

Operate as follows to exit the procedure before the operation is complete:

10. Do not operate for 15 sec (any changes will be saved).



Setting the power distributed at the floor

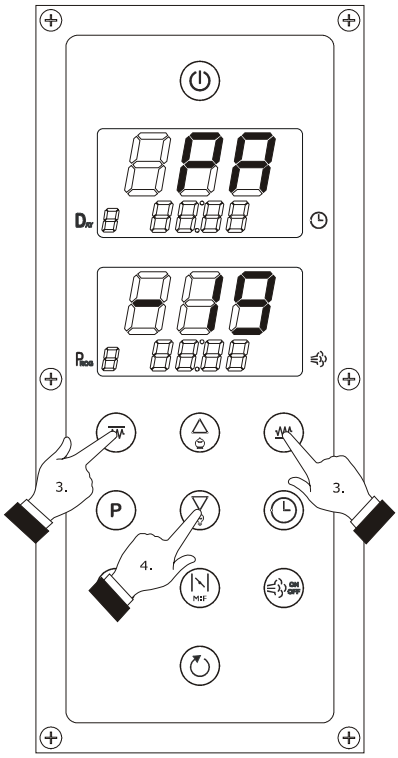
14.5 Setting the configuration parameters

Operate as follows to access the procedure:

1. Make sure there is no cooking cycle or any procedure in progress.
2. Hold the UP and DOWN key for 4 s: the top part of the "UPPER" display will show"**PA**".
3. Press and release the "TOP" key or the "FLOOR" key: the "LOWER" part of the display will show "**0**".
4. Press and release the "DOWN" key within 15 s to set "**-19**".
5. Press and release the "TOP" key or the "FLOOR" key or do not operate for 15 s.
6. Hold the "UP" and "DOWN" key for 4 s:
   - in the event of operation with an analogue input, the top part of the "UPPER" display will show "**SP**"
   - in the event of operation with two analogue inputs, the top part of the "UPPER" display will show "**SP1**"

Operate as follows to select a parameter:

7. Press and release the "UP" key or the "DOWN" key.



Setting the configuration parameters

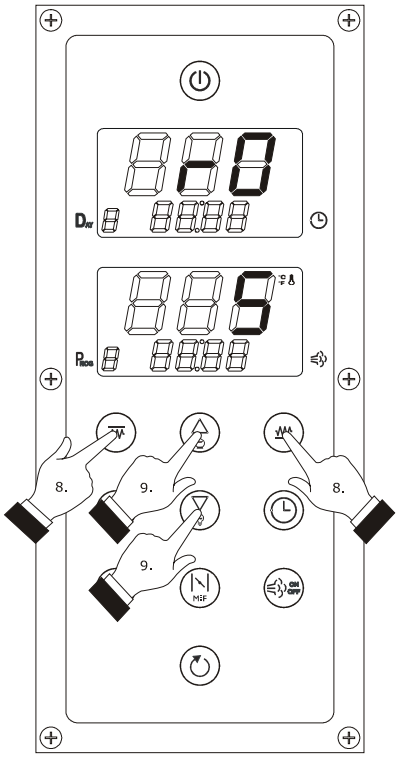
Operate as follows to set a parameter:

8. Press and release the "TOP" key or the "FLOOR" key: the top part of the "LOWER" display will show the value of the parameter.
9. Press and release the UP or DOWN key within 15 s to set the value of the parameter.
10. Press and release the "FLOOR" key or the "TOP" key or do not operate for 15 s.

Operate as follows to exit the procedure:

11. Hold the "UP" key and the "DOWN" key down for 4 s or press and release the "ON/STAND-BY"; do not operate for 60 s.

Cut the device power supply off after setting the parameters.

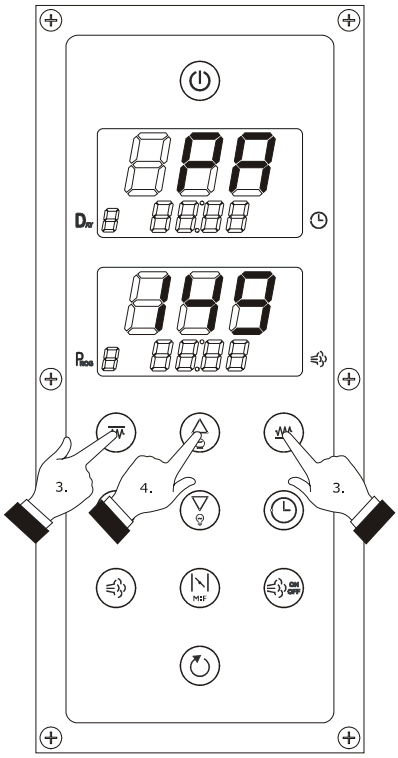


Setting the configuration parameters

14.6 Restoring the factory settings

Operate as follows to restore the factory settings:

1. Make sure there is no cooking cycle or any procedure in progress.
2. Hold the UP and DOWN key for 4 s: the top part of the "UPPER" display will show"**PA**".
3. Press and release the "TOP" key or the "FLOOR" key: the "LOWER" part of the display will show "**0**".
4. Press and release the "UP" key within 15 s to set "**149**".
5. Press and release the "TOP" key or the "FLOOR" key or do not operate for 15 s.
6. Hold the UP and DOWN key for 4 s: the "UPPER" part of the display will show"**dEF**".
7. Press and release the "TOP" key or the "FLOOR" key: the "LOWER" part of the display will show "**0**".
8. Press and release the "UP" key within 15 s to set "**1**".
9. Press and release the "TOP" key or the "FLOOR" key or do not operate for 15 s: the top part of the lower display will show flashing "**- - -**" for 4 s, successively the top part of the upper display will show flashing "**dEF**" for 4 s,after which, the device will exit from the procedure.
10. Cut the device power supply off.



Restoring the factory settings

Operate as follows to exit the procedure before the operation is complete:

11. Hold the "UP" key and "DOWN" key down for 4 s before setting "**1**" (i.e. before point 8: restore will not be performed).

Make sure that the manufacturer's settings are appropriate; see paragraph 14.7 "List of configuration parameters".

14.7 List of configuration parameters

The following table illustrates the meaning of the device configuration parameters.
The indication "1 ING." indicates "operating with an analogue input" (chamber probe, i.e. with management of the power distributed at the top and that distributed at the floor independently from each other; the data given in this column is significant only if the CFG parameter is set at 0). The indication "2 ING." indicates "operating with two analogue inputs" (top probe and floor probe, i.e. with management of the top and floor temperature independently from each other; the data given in this column is only significant if the CFG parameter is set at 1).

PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	WORKING SET-POINT
SP	r1	r2	°C/°F (1)	150	not dis.	working set-point; see also r0
SP1	r1	r2	°C/°F (1)	not dis.	150	top set-point; see also r0
SP2	r7	r8	°C/°F (1)	not dis.	150	floor set-point; see also r6
PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	POWER SUPPLIED
Po1	0	100	%	50	not dis.	power distributed at the top (percentage of the time c1); see also c0
Po2	0	100	%	50	not dis.	power distributed at the floor (percentage of the time c1); see also c0
PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	STEAM INJECTION
tOn	0	250	s	5	5	if t0 = 0, minimum switch-on duration of the steam injector if t0 = 1, duration of steam injector switch-on; see also tOF and nCY
tOF	0	250	s	15	15	if t0 = 0, not significant if t0 = 1, duration of steam injector switch-off; see also tOn and nCY
nCY	0	99	- - -	0	0	if t0 = 0, not significant if t0 = 1, number of steam injections in cyclical mode; see also tOn and tOF 0 = until steam injection in cyclic mode will be deactivated
PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	TYPE OF OPERATION

CFG	0	1	- - -	0	1	type of operation 0 = with one analogue input (chamber probe, i.e. with management of the power supplied at the top and at the floor independently from each other.) 1 = with two analogue inputs (top and floor probe, i.e. with management of the temperature of the top and at the floor independently from each other.)
PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	ANALOGUE INPUTS
CA1	-25/-50	25/50	°C/°F (1)	0	0	if CFG = 0, chamber probe offset if CFG = 1, top probe offset
CA2	-25/-50	25/50	°C/°F (1)	not dis.	0	floor probe offset
CA3	-25/-50	25/50	°C/°F (1)	0	0	steam probe offset
P0	0	1	- - -	0	0	probe type 0 = thermocouple J 1 = thermocouple K
P2	0	1	- - -	0	0	temperature unit of measurement (2) 0 = °C 1 = °F
P4	0	2	- - -	2	2	steam injection activation consent mode 0 = MANUAL - steam injection will be allowed if the steam generator has been switched on 1 = REMOTE - steam injection will be allowed if the steam generator has been switched on and if the multi-function input has been activated (until the input is deactivated; only if i5 = 1) 2 = THERMOSTAT - steam injection will be allowed if the steam temperature adjustment has been activated and the steam temperature is above the SPS (until the temperature drops below the t4 value)
P5	0	1	- - -	0	0	information shown in the top part of the "UPPER" display when the device is on and when a cooking cycle is in progress 0 = if CFG = 0, temperature of the chamber if CFG = 1, top temperature 1 = if CFG = 0, work set-point if CFG = 1, top set-point

P6	0	2	- - -	0	0	information shown in the top part of the "LOWER" display when the device is on and when a cooking cycle is in progress 0 = if CFG = 0, power distributed at the top alternately to power distributed at the floor for 10 s if CFG = 1, floor temperature 1 = if CFG = 0, power distributed at the top if CFG = 1, floor set-point 2 = if CFG = 0, power distributed at the floor if CFG = 1, reserved
P7	0	99/210	°C/°F (1)	0	0	temperature above which the use temperature alarm is activated (code "**Ht**"; relative to the control module use temperature, i.e. "control module use temperature + P7") 0 = no alarm
PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	MAIN REGULATOR
r0	1	99	°C/°F (1)	5	5	if CFG = 0, work set-point differential (of SP) if CFG = 1, top set-point differential (of SP1)
r1	0	r2	°C/°F (1)	50	50	if CFG = 0, minimum work set-point if CFG = 1, minimum top set-point
r2	r1	999	°C/°F (1)	350	350	if CFG = 0, maximum work set-point if CFG = 1, maximum top set-point
r6	1	99	°C/°F (1)	not dis.	5	floor set-point differential (of SP2)
r7	0	r8	°C/°F (1)	not dis.	50	minimum floor set-point
r8	r7	999	°C/°F (1)	not dis.	350	Maximum floor set-point
r12	0	1	- - -	0	0	enabling the "weekly programmed switch-on" function 1 = YES
r13	0	240	min	240	240	duration of a power supply cut-off that occurs during the cooking timer count, such to cause the interruption of the cooking cycle (3)
PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	STEAM INJECTION
SPS	0	999	°C/°F (1)	100	100	steam set-point; see also t3 (only if P4 = 2)

t0	0	1	- - -	0	0	steam injection activation mode 0 = MANUAL + PERSISTENT MANUAL - pressing and releasing the "STEAM INJECTION" key will cause steam injection for time tOn or for the entire duration that the key is pressed 1 = AUTOMATIC + PERSISTENT MANUAL - pressing and releasing the "STEAM INJECTION" key will activate steam injection in cyclic mode (maximum for the number of nCY cycles or until the key is pressed and released again; tOn establishes the duration of injector switch-on and tOF that of switch-off) or will cause steam injection for the entire duration the key is pressed
t3	1	99	°C/°F (1)	5	5	SPS differential (only if P4 = 2)
t4	0	99	°C/°F (1)	50	50	temperature of the steam, below which steam injection is disabled (relative to SPS, i.e. "SPS - t4"; only if P4 = 2) (4)
t5	0	1	- - -	0	0	enabling the bottom part of the "LOWER" display to show the residual count of the steam injection number is cyclic mode (only if t0 = 1) 1 = YES
t6	0	1	- - -	1	1	enabling the quick access to setting the number of steam injections in cyclic mode (with the procedure illustrated in the 7.1.3 paragraph; only if t0 = 1) 1 = YES
t8	0	1	- - -	0	0	enabling of the restriction between steam injection in cyclic mode and start-up of the cooking timer count (only if t0 = 1) 1 = YES - steam injection in cyclic mode will be activated at the start of the cooking timer count
t9	0	1	- - -	1	1	enabling of the restriction between steam injection in cyclic mode and conclusion of the cooking timer count (only if t0 = 1) 1 = YES - on conclusion of the cooking timer count, the steam injection in cyclic mode will be deactivated; press and release the "STEAM INJECTION" key to activate it again
PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	VARIOUS

c0	0	1	- - -	0	not dis.	enabling the restriction between the power distributed at the top (Po1) and the power distributed at the floor (Po2) 1 = YES - setting the power distributed at the top causes automatic adaptation of the power distributed at the floor (and vice versa), such to guarantee that the sum of the two power values is always 100
c1	1	999	s	80	80	if CFG = 0, cycle time for switch-on of the top output and the floor output,; see also Po1 and Po2 if CFG = 1, cycle time for switch-on of the top output and the floor output during the "energy saving" function (5)
c2	0	1	- - -	0	not dis.	activation of the "quick heating" function at device switch-on 1 = YES
c3	0	999	°C/°F (1)	150	not dis.	temperature of the chamber above which the " quick heating" function is interrupted
c4	-1	120	s	15	15	duration of the activation of the buzzer on conclusion of the cooking timer count (6) -1 = the buzzer must be silenced by pressing and releasing the key
c5	0	60	min	20	20	vent activation advance on conclusion of the cooking timer count; see also c6
c6	0	60	min	20	20	duration of vent activation from advance c5
c7	0	60	min	30	30	maximum duration of vent activation in manual mode
c8	0	1	- - -	1	1	time shown on the bottom part of the "UPPER" display when the device is off 1 = YES
c10	0	240	min	120	120	maximum duration of the "energy saving" function (7)
c12	0	240	min	60	60	time that must pass in absence of operations on keys (from device switch-on due to effect of the "weekly programmed switch-on" function), until the function is activated again 1 = YES
c13	0	100	%	50	not dis.	percentage reduction of the switch-on durations of the top output and the floor output during the "energy saving" function

PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	TEMPERATURE ALARMS
A1	0	999	°C/°F (1)	0	0	if CFG = 0, temperature of the chamber above which the temperature alarm is activated (code "**AH1**"); see also A3 (8) if CFG = 1, temperature of the top above which the temperature alarm is activated (code "**AH1**"); see also A3 (8)
A2	0	240	min	0	0	if CFG = 0, temperature alarm display (code "**AH1**") if CFG = 1, top temperature alarm delay (code "**AH1**")
A3	0	2	- - -	0	0	if CFG = 0, temperature alarm type (code "**AH1**") if CFG = 1, top temperature alarm type (code "**AH1**") 0 = no alarm 1 = absolute (i.e. A1) 2 = if CFG = 0, relative to the work set-point (i.e. "work set-point + A1") if CFG = 1, relative to the top set-point (i.e. "top set-point + A1")
A4	0	999	°C/°F (1)	not dis.	0	temperature of the floor above which the floor temperature alarm is activated (code "**AH2**"); see also A6 (8)
A5	0	240	min	not dis.	0	floor temperature alarm delay (code "**AH2**")
A6	0	2	- - -	not dis.	0	type of floor temperature alarm (code "**AH2**") 0 = no alarm 1 = absolute (i.e. A4) 2 = relative to the floor set-point (i.e. "floor set-point + A4")
PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	DIGITAL INPUTS

i0	0	2	- - -	2	2	effect caused by the activation of the door micro switch input 0 = no effect 1 = EXTRACTION HOOD SWITCH-ON - the extraction hood will be switched on (only if u1 = 0, until the input is deactivated) 2 = SWITCH-ON OF THE EXTRACTION HOOD, SWITCH-OFF OF THE TOP OUTPUT AND FLOOR OUTPUT AND DISABLING OF STEAM INJECTION - the extraction hood will be switched on (only if u1 = 0); the top output and the floor output will be switched off and the steam injection will be disabled (until the input will be deactivated)
i1	0	1	- - -	0	0	type of door micro switch input contact 0 = normally open (input active with closed contact) 1 = normally closed (input active with open contact)
i5	0	1	- - -	1	1	effect caused by the activation of the multifunction input 0 = no effect 1 = CONSENT FOR STEAM INJECTION - steam injection will be allowed (until the input s deactivated, only if P4 = 1) 1 = DEVICE SWITCH-OFF - the device will be switched off (while the input is deactivated)
i6	0	1	- - -	0	0	type of multifunction input contact 0 = normally open (input active with closed contact) 1 = normally closed (input active with open contact)
i11	0	1	- - -	0	0	type of circuit breaker protection input contact 0 = normally open (input active with closed contact) 1 = normally closed (input active with open contact)
i12	0	120	s	10	10	input circuit breaker protection alarm signal delay ("**AL1**" code)

i15	0	1	- - -	1	1	effect caused by the activation of the electric absorption protection input 0 = DISABLING STEAM INJECTION, SWITCH-OFF OF STEAM GENERATOR, OF THE TOP OUTPUT AND THE FLOOR OUTPUT - steam injection will be disabled, the steam generator, the top output and the floor output will be switched off; the display will show the flashing "**AL2**" code and the buzzer will be activated (until the input is deactivated) 1 = "ENERGY SAVING" FUNCTION ACTIVATION - the "energy saving" function will be activated (while the input is deactivated)
i16	0	1	- - -	0	0	type of electric absorption protection input contact 0 = normally open (input active with closed contact) 1 = normally closed (input active with open contact)
PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	DIGITAL OUTPUTS
u1	0	1	- - -	0	0	utility managed by the digital output K4 (9) 0 = EXTRACTION HOOD - in this case, parameter i0 will have meaning 1 = MULTI-FUNCTION - in this case, the "VENT" key will have meaning
u11	0	1	- - -	0	0	utility managed by the digital output K5 (9) 0 = TECHNICAL COMPARTMENT FAN - in this case, parameter U12 will have meaning 1 = SWITCH-ON/OFF
u12	0	240	min	10	10	technical compartment fan switch-off delay from device switch-off (only if u11 = 0)
PARAM.	MIN.	MAX.	U.M.	INP. 1	INP. 2	SERIAL NETWORK
LA	1	247	- - -	247	247	device address
Lb	0	3	- - -	2	2	baud rate 0 = 2,400 baud 1 = 4,800 baud 2 = 9,600 baud 3 = 19,200 baud

LP	0	2	- - -	2	2	parity 0 = none (no parity) 1 = odd 2 = even

Notes

(1) The unit of measurement depends on parameter P2.

(2) Properly set the parameters corresponding to the regulators after setting parameter P2.

(3) If the duration of the power supply cut-off is less than the time established with parameter r13, on restoring the power supply, the cooking timer count will be re-proposed (if vice versa, the duration of the cut-off is longer than the time established with parameter r13, on restoring the power supply, the cooking timer count will be interrupted).

(4) Steam injection is allowed after the steam temperature has reached that established with the SPS parameter; if steam injection is not allowed, the "STEAM INJECTION" key will flash.

(5) During the "energy saving" function, the top output and the floor output are switched on alternately and in cyclic mode for half of the time established with parameter c1.

(6) If the cooking timer count is modified and set at zero, it will be interrupted and the buzzer will be activated for 3 s.

(7) If the device is switched-off when the "energy saving" function is in progress, on successive switch-on the function will not be re-proposed; if the power supply should be cut-off when the function is in progress, when the same is restored, the function will be re-proposed and the time count established with c10 will be started from the beginning.

(8) The parameter differential is 10 °C/18 °F.

(9) To avoid damaging the unit connected, set the parameter setting when the device is switched off.

15 SIGNALS

15.1 Signals

The following table illustrates the meaning of the device LEDS.

LED	MEANING
"UPPER" display	<u>if the parameter CFG is set at 0, chamber LED</u> if it is on, the top output and/or the floor output will be on if it flashes, setting of the work set-point will be in progress (with the procedure illustrated in paragraph 14.2) <u>if the parameter CFG is set at 1, top LED</u> if it is on, the top output will be on if it flashes, setting of the top set-point will be in progress (with the procedure illustrated in paragraph 14.3)
in the "LOWER" display	floor LED if it is on, the floor output will be on if it flashes, setting of the floor set-point will be in progress (with the procedure illustrated in paragraph 14.3)
M:F	Multifunction LED if it is on, the multifunction output will be on
	Energy Saving LED if on, the "energy saving" function is in progress
CYCLES	number of steam injections in cyclic mode LED if it is on, the value shown in the floor part of the "LOWER" display will be the residual count of the number of steam injections in cyclical mode and the activation mode of the steam injector will be "AUTOMATIC + PERSISTENT MANUAL"
TON	switch-on duration of the steam injector LED if it is on, the value shown in the floor part of the "LOWER" display will be the minimum duration of steam injector switch-on and the activation mode of the steam injector will be "MANUAL + PERSISTENT MANUAL" if it flashes, quick setting of the time tOn will be in progress (i.e. of the switch-on duration of the steam injector, with the procedures illustrated in the chapter 7.1)
TOFF	switch-off duration of the steam injector LED if it flashes, quick setting of the time tOF will be in progress (i.e. of the switch-off duration of the steam injector, with the procedures illustrated in the chapter 7.1)
In the "UPPER" display	<u>if the parameter CFG is set at 0, temperature associated to the chamber LED</u> if it is on, the value displayed in the top part of the display will be a temperature associated to the chamber if it flashes, setting of the work set-point will be in progress (with the procedure illustrated in paragraph 14.2) <u>if the parameter CFG is set at 1, temperature associated to the top LED</u> if it is on, the value displayed in the top part of the display will be a temperature associated to the top if it flashes, setting of the top set-point will be in progress (with the procedure illustrated in paragraph 14.3)

°C °F in the "LOWER" display	temperature associated to the floor LED if it is on, the value displayed in the top part of the display will be a temperature associated to the floor if it flashes, setting of the floor set-point will be in progress (with the procedure illustrated in paragraph 14.3)
%	power distributed at the top LED if it is on, the value shown in the top part of the "LOWER" display will be the value of the power distributed at the top if it flashes, setting of the power distributed at the top will be in progress (with the procedure illustrated in paragraph 14.4)
%	power distributed at the floor LED if it is on, the value shown in the top part of the "LOWER" display will be the value of the power distributed at the floor if it flashes, setting of the power distributed at the floor will be in progress (with the procedure illustrated in paragraph 14.4)
TIMER	cooking timer LED. if it is on, the cooking timer count will be in progress or cooking timer setting will be in progress.
CLOCK	day of the week and time LED if it is on, the values shown in the bottom part of the "LOWER" display will be the day of the week and the time
DELAY	weekly programmed switch-on LED if it is on, the "weekly programmed switch-on" function will be in progress or setting of the switch-on day and time and the program to be started if flashing, the selection of the weekly programmed switch-on will be in progress
End	if flashing, the cooking cycle has concluded

16 ALARMS

16.1 Alarms

The following table illustrates the meaning of the device alarm codes.

CODE	MEANING
AH1	if the parameter CFG is set at 0, temperature solutions: - check the chamber temperature; see parameters A1 and A3 main consequences: - no consequence if the parameter CFG is set at 1, top temperature alarm solutions: - check the top temperature; see parameters A1 and A3 main consequences: - no consequence
AH2	floor temperature alarm solutions: - check the top temperature; see parameters A1 and A3 main consequences: - no consequence
Ht	Use temperature alarm. solutions: - check the use temperature of the control module; see parameter P7 - when the cause of the alarm disappears, press and release a key main consequences: - the device will be switched off - the technical compartment fan will be on (only if parameter u11 is set at 0) and the remaining outputs will be off
dr	door micro switch input alarm solutions: - check the causes of the activation of the input; see parameters i0 and i1, main consequences: - the effect established with parameter i0
AL1	circuit breaker protection input alarm solutions: - check the causes of the activation of the input; see parameter i11, main consequences: - if the alarm occurs when the device is on, a cooking cycle cannot be started - if the alarm occurs during a cooking cycle, the cycle will be interrupted - steam injection will be disables, the steam generator, to top output and the floor output will be switched off

AL2	electric absorption protection input alarm solutions: - check the causes of the activation of the input; see parameter i16, main consequences: - if the alarm occurs when the device is on, a cooking cycle cannot be started - if the alarm occurs during a cooking cycle, the cycle will be interrupted - the effect established with parameter i15
PF	power supply cut-off alarm solutions: - check the device-power supply connection - press and release the key main consequences: - the device re-proposes the state in which it was found when the power supply was cut-off - if the alarm should occur during the cooking timer count and the duration of the power supply cut-off is less than the time established with parameter r13, on restoring the power supply, the cooking timer count will be re-proposed (if vice versa, the duration of the cut-off is longer than the time established with parameter r13, on restoring the power supply, the cooking timer count will be interrupted).
PF1	power supply cut-off during cooking timer count alarm, of duration such not to cause the interruption of the cooking cycle solutions: - check the device-power supply connection - press and release the key main consequences: - no consequence
PF2	power supply cut-off during cooking timer count alarm, of duration such to cause the interruption of the cooking cycle solutions: - check the device-power supply connection; see parameter r13 - press and release the key main consequences: - the cooking cycle will be interrupted
CEr	firmware alarm of the original settings not coinciding with that of the destination settings solutions: - cut the device power supply off - check that the original setting firmware coincides with that of the destination settings main consequences: - no consequence

Erd	device settings upload not completed successfully alarm solutions: - to restore the factory settings main consequences: - all outputs will be switched off
ESt	device settings download not completed successfully alarm solutions: - press and release the key main consequences: - no consequence

When the cause of the alarm disappears, the device restores normal operation, except for the following alarms:

- the use temperature alarm (code "**Ht**"), which requires a key to be pressed and released
- the power supply cut-off alarm (code "**PF**"), which requires a key to be pressed and released
- the device settings download not completed successfully alarm power supply cut-off alarm (code "**ESt**"), which requires a key to be pressed and released
- the firmware alarm of the original settings not coinciding with that of the destination settings(code "**CEr**"), which requires the device power supply to be cut-off
- the device settings upload not completed successfully alarm power supply cut-off alarm (code "**Erd**"), which requires factory settings to be restored.

17 ERRORS

17.1 Errors

The following table illustrates the meaning of the device error codes.

CODE	MEANING
Pr1	if the parameter CFG is set at 0, chamber probe error solutions: - check that the probe is the thermocouple J or thermocouple K type - check the device-probe connection - check the temperature of the chamber main consequences: - if the alarm occurs when the device is on, a cooking cycle cannot be started - if the alarm occurs during a cooking cycle, the cycle will be interrupted - the top output and the floor output will be switched off if the parameter CFG is set at 1, top probe error solutions: - the same as the preceding case but with respect to the top probe main consequences: - the floor probe will function as top probe and as floor probe
Pr2	floor probe error solutions: - the same as the preceding case but with respect to the floor probe main consequences: - the top probe will function as top probe and as floor probe
Pr3	steam probe error solutions: - the same as the preceding case but with respect to the steam probe main consequences: - if parameter P4 is set at 2, steam injection will be disabled and the steam generator will be switched off
E0C	cold joint error solutions: - cut the device power supply off main consequences: - if the error occurs when the device is on, a cooking cycle cannot be started - if the error occurs during a cooking cycle, the cycle will be interrupted - all outputs will be switched off
rtc	clock error solutions: - set the day of the week and the time main consequences: - the “weekly programmed switch-on” function will not be available

ErL	user interface-control module communication error solutions: - check user interface-control module control module main consequences: - if the alarm occurs when the device is on, a cooking cycle cannot be started - if the alarm occurs during a cooking cycle, the cycle will be interrupted - all outputs will be switched off

When the problem that caused the error disappears, the device returns to normal operation, with the exception of the clock error (code "**rtc**"), which requires that the day of the week and time are set.

18 ACCESSORIES

18.1 EVKEY programming key

18.1.1 Preliminary notes

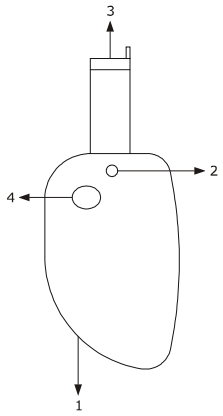
EVKEY is a programming key.

Using the key it is possible to upload and download the device settings (configuration parameters, information relative to programs and weekly programmed switch-ons); the device settings can be uploaded on condition that the original settings firmware coincides with that of the destination settings.

The key can be used on condition that the device is powered.

18.1.2 Description

The following drawing illustrates the aspect of the EVKEY.



The following table illustrates the meaning of the EVKEY parts.

PART	MEANING
1	reserved
2	Signal LED
3	Micromatch connector
4	programming key

For further information, see the next paragraphs

18.1.3 Upload the device settings

Operate as follows to upload the device settings:

1. Cut the device power supply off.
2. Insert the EVKEY Micromatch connector into the device control module TTL serial port.
3. Connect the device power supply: the top part of the "UPPER" display will show "**Cln**" and the EVKEY signal LED will emit a green light.
4. Hold the EVKEY programming key down for 1 s: the EVKEY signal LED will emit a red light and uploading of the configuration parameters will be started.
   The upload operation requires several seconds. If the operation is not completed successfully within this time period, i.e. if the EVKEY signalling LED does not stop emitting red light and emitting green light, the operation must be repeated.
5. On the conclusion of uploading, the top part of the "UPPER" display will show "**PrG**"and the EVKEY signal LED will emit a green light again.
6. Press and release a key to restore normal display.
7. Disconnect the EVKEY Micromatch connector from the device control module TTL serial port.

Operate as follows to exit the procedure before the operation is complete:

8. Do not operate for 60 s.
9. Disconnect the EVKEY Micromatch connector from the device control module TTL serial port (upload will not be performed).

For further information, see the documentation relative to EVKEY.

18.1.4 Download the device settings

Operate as follows to download the device settings:

1. Cut the device power supply off.
2. Insert the EVKEY Micromatch connector into the device control module TTL serial port.
3. Connect the device power supply: the top part of the "UPPER" display will show "**Cln**" and the EVKEY signal LED will emit a green light.
4. Hold the "TOP" key or the "FLOOR" key down for 4 s: the "UPPER" part of the display will show"**St**" flashing.
5. Hold the "TOP" key or the "FLOOR" key down for 4 s: the top part of the "UPPER"display will show "**St**" on, the EVKEY signal LED will emit a red light and the configuration parameters download will be started.
   The download operation requires several seconds. If the operation is not completed successfully within this time period, i.e. if the EVKEY signalling LED does not stop emitting red light and emitting green light, the operation must be repeated.
6. When downloading has been concluded, the display will restore normal viewing and the EVKEY signalling LED will emit a green light again.
7. Disconnect the EVKEY Micromatch connector from the device control module TTL serial port.

Operate as follows to exit the procedure before the operation is complete:

8. Do not operate for 60 s.
9. Disconnect the EVKEY Micromatch connector from the device control module TTL serial port (download will not be performed).

For further information, see the documentation relative to EVKEY.

18.2 Optoisolated RS-485/USB serial interface EVIF20SUXI

18.2.1 Preliminary notes

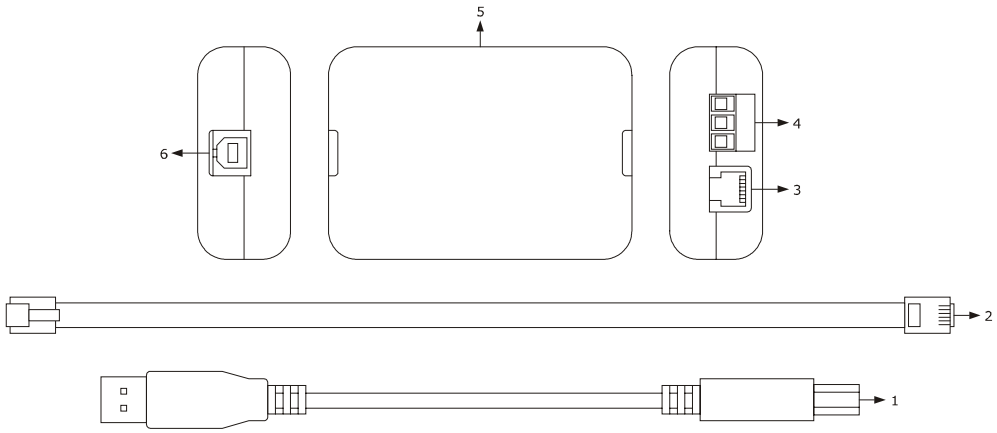
EVIF20SUXI is an optoisolated RS-485/USB serial interface.

The interface can be used to connect the device to the Parameters Manager set-up software system.

The interface can be used on condition that the device is powered.

18.2.2 Description

The following drawing illustrates the aspect of the EVIF20SUXI.



The following table illustrates the meaning of the EVIF20SUXI parts.

PART	MEANING
1	USB cable (length of 2 m)
2	telephone cable (length of 2.5 m)
3	RS-485 port on telephone connector
4	RS-485 port on removable screw terminal
5	RS-485/USB serial interface
6	USB port

For further information, see the next paragraphs

18.2.3 Connecting the device to the Personal Computer

Operate as follows to connect the device to the Personal Computer:

1. Cut the device power supply off.
2. Connect the device control module "+" clamp of the RS-485 port to the removable screw terminal "+" clamp of the RS-485 port of EVIF20SUXI.
3. Connect the device control module "-" clamp of the RS-485 port to the removable screw terminal "-" clamp of the RS-485 port of EVIF20SUXI.
4. Connect the device control module "shield" clamp of the RS-485 port to the removable screw terminal "shield" clamp of the RS-485
   port of EVIF20SUXI.
5. Insert one end of the USB cable into the EVIF20SUXI USB port.
6. Insert the other end of the USB cable into a USB port on the free Personal Computer and not used by other programs.
7. Connect the device power supply.

For further information, see the documentation relative to Parameters Manager.

18.3 Data recording device EVUSBREC01

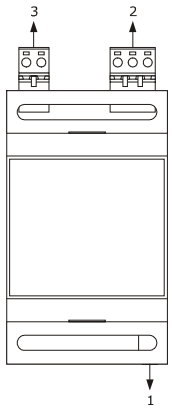
18.3.1 Preliminary notes

EVUSBREC01 is a data recording device.

Using the device, it is possible to record controller data and their download (via USB, into a text document).

18.3.2 Description

The following drawing illustrates the aspect of the EVUSBREC01.



The following table illustrates the meaning of the EVUSBREC01 parts.

PART	MEANING
1	USB port
2	RS-485 port
3	power supply

For further information, see the next paragraphs

18.3.3 Connecting the device

Operate as follows to connect the devices:

1. Cut the device power supply off.
2. Disconnect the EVUSBREC01 power supply.
3. Connect the device control module "+" clamp of the RS-485 port to the EVUSBREC01 "+" clamp of the RS-485 port.
4. Connect the device control module "-" clamp of the RS-485 port to the EVUSBREC01 "-" clamp of the RS-485 port.
5. Connect the device control module "shield" clamp of the RS-485 port to the EVUSBREC01 "shield" clamp of the RS-485 port.
6. Connect the device power supply.
7. Connect the EVUSBREC01 power supply.

For further information, see the documentation relative to EVUSBREC01.

19 TECHNICAL DATA

19.1 Technical data

Purpose of the command device:	operating command device.	
Construction of the command device:	built-in electronic device.	
Case:	*user interface*	*control module*
	board without cover fixed onto a Plexiglas sheet.	board without cover.
Dimensions:	*user interface*	*control module*
	110.0 x 250.0 x 36.7 mm (4.330 x 9.842 x 3.668 cm; L x H x D).	166.0 x 116.0 x 44.0 mm (6.535 x 4.566 x 4.399 cm; L x H x D).
Method of mounting the command device:	*user interface*	*control module*
	rear of panel, with biadhesive tape.	on flat surface, with spacers.
Protection rating:	*user interface*	*control module*
	IP65.	IP00.
Connections:	*user interface*	*control module*
	fixed screw terminal board (control module).	removable screw terminal board (user interface, power supply, inputs, outputs and RS-485 port).
	The maximum length of the analogue inputs and digital outputs connection cables must be less than 10 m (32,808 ft). The maximum length of the user interface-control module connection cables must be less than 10 m (32,808 ft).	
Operating temperature:	from 0 to 55 °C (from 32 to 131 °F).	
Storage temperature:	from -10 to 70 °C (from -14 to 158 °F).	
Humidity for use:	from 10% to 90 % relative humidity without condensate.	
Command device pollution situation:	2.	
Power:	*user interface*	*control module*
	supplied from the control module.	115... 230 VAC (±15%), 50/60 Hz (±3 Hz), 10 VA max.

Rated impulse voltage:	4 KV.
Overvoltage category:	II.
Class and structure of software:	A.
Clock:	incorporated (with condenser).
	Battery autonomy in the event of a power-cut: 24 h with battery fully charged.
	Battery charging time: 2 min (the battery is charged by the device power supply).
Analogue inputs:	3 inputs (top probe, floor probe and steam probe), can be set via configuration parameter for J/K thermocouples.
	<u>thermocouple J type analogue inputs</u> Type of sensor: iron/constantan. Field of measurement: from -99 to 8005□ (from -99 to 999 □). Resolution: 1 °C (1 °F). Protection: none.
	<u>thermocouple K type analogue inputs</u> Type of sensor: chromel/alumel. Field of measurement: from -99 to 999□ (from -99 to 999 □). Resolution: 1 °C (1 °F). Protection: none.
Digital inputs:	4 inputs (door micro switch, multi-function, circuit breaker protection and electric absorption protection), which can be set via configuration parameter due to normally open contact/normally closed contact (potential-free contact, 5 VDC, 2 mA)
	<u>Digital inputs</u> Power supply: none. Protection: none.
Displays:	2 custom 3 + 4 digit displays with function icon.

Digital outputs:	8 outputs (electro-mechanical relays) in the EVF318 model - 1 x 8 A res. output @ 250 VAC SPST type (K1) for steam injection management - 1 x 8 A res. output @ 250 VAC SPST type (K2) for steam generator management - 1 x 8 A res. output @ 250 VAC SPST type (K3) for vent management - 1 x 16 A res. output @ 250 VAC SPST type (K4) for extraction hood or multi-function output management - 1 x 8 A res. output @ 250 VAC SPDT type (K5) for technical compartment fan management or of the switch-on/ off management - 1 x 8 A res. output @ 250 VAC SPST type (K6) for top output management - 1 x 8 A res. output @ 250 VAC SPST type (K7) for floor output management - 1 x 16 A res. output @ 250 VAC type SPDT (K8) for chamber light management. The maximum current allowed on the loads is 10 A. 8 outputs (of which 6 electro-mechanical relays and 2 solid state relays) in the EVF328 model - 1 x 8 A res. output @ 250 VAC (electro-mechanical relay) SPST type (K1) for steam injection management - 1 x 8 A res. output @ 250 VAC (electro-mechanical relay) SPST type (K2) for steam generator management - 1 x 8 A res. output @ 250 VAC (electro-mechanical relay) SPST type (K3) for vent management - 1 x 16 A res. output @ 250 VAC (electro-mechanical relay) SPST type (K4) for extraction hood or multi-function output management - 1 x 8 A res. output @ 250 VAC (electro-mechanical relay) SPDT type (K5) for technical compartment fan management or of the switch-on/off management - 1 x 12 V, 30 mA output (solid state relay) SPST type (K6) for top output management - 1 x 12 V, 30 mA output (solid state relay) SPST type (K7) for floor output management - 1 x 16 A res. output @ 250 VAC (electro-mechanical relay) SPDT type (K8) for chamber light management. The maximum current allowed on the loads is 10 A.
Type 1 or Type 2 actions:	Type 1.
Complementary features of Type 1 or Type 2 actions:	C.

Communication ports:	2 ports: - 1 x TTL serial port (for EVKEY programming) - 1 RS-48 serial port with MODBUS communication protocol (for other EVCO products).
Signal buzzer and alarm:	incorporated.

EVF 300 series
Controllers for electric bread and pizza ovens, with touch-keys, in split version and which can be integrated into the unit
Installer manual ver. 1.1
PT - 20/14
Code 144F300E114

EVCO S.p.A.
Via Mezzaterra 6, 32036 Sedico Belluno ITALY
Phone +39/0437/8422 | Fax +39/0437/83648
info@evco.it | www.evco.it