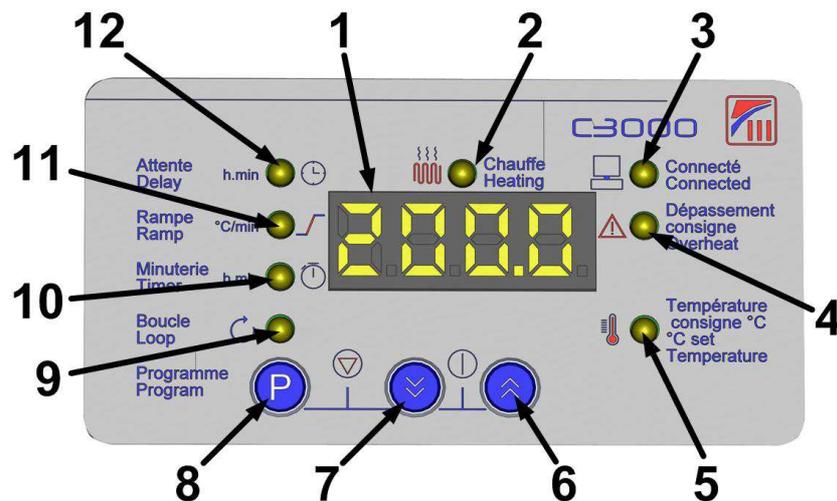


TEMPERATURE CONTROLLER C3000

Description



1	Digital display	Displayed the temperature measured in the oven, the set point temperature and other parameters.
2	Heating indicator	Indicates that the oven heats.
3	Connected indicator	Indicates that the oven is connected to a computer via RS232.
4	Overheat indicator	Indicates that the measured temperature is higher than the set point temperature by at least 5°C.
5	°C Set Temperature indicator	Fixed: indicates that the user is changing the set point temperature. Blinking: indicates that the set point temperature is reached.
6	Increment key	Allows to increase the value of the displayed parameter.
7	Decrement key	Allows to decrease the value of the displayed parameter.
8	Program key	Allows to modify the 3 steps of the program mode.
9	Loop indicator	Indicates the repetition of the program.
10	Timer indicator	Indicates in program mode that the timer is counting.
11	Ramp indicator	Indicates in program mode that the ramp is in progress.
12	Delay indicator	Indicates in program mode that a delay time is applicable before activating heating.

Simple control

The simple control allows to heat at an only constant temperature.

At the starting of the oven, the controller switches on and activates heating to reach the set point temperature entered at the time of the last starting. The digital display alternately displays the set point temperature and the measured one.

Setting the set point temperature:

Press the **Increment** and/or **Decrement** keys to set the new set point temperature.

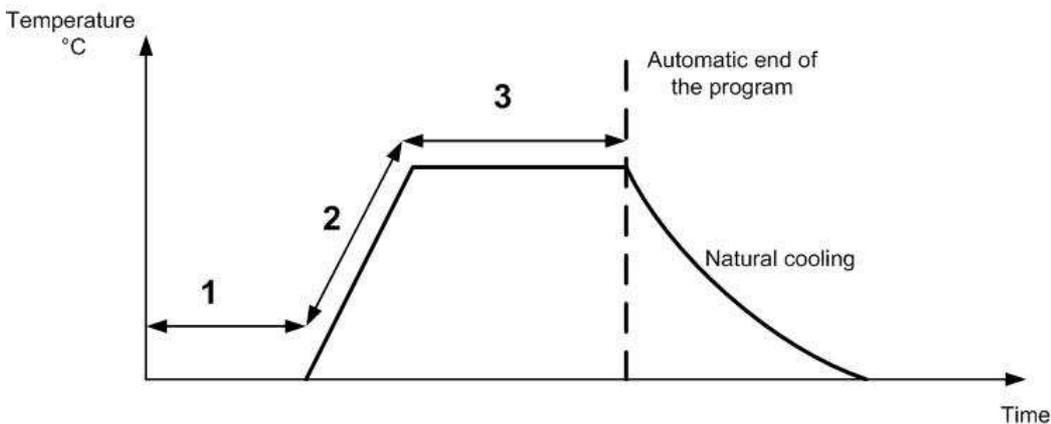
After few seconds, the digital display displays again the measured temperature then alternately the new set point temperature and the measured one.

Program mode

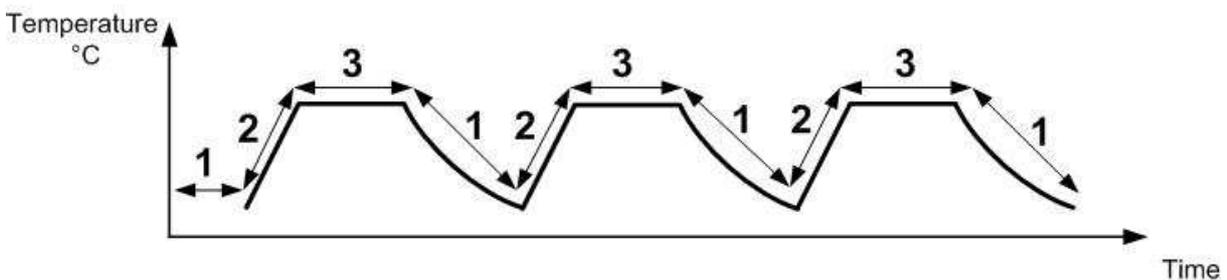
The program mode allows to make an automatic temperature cycle.

A cycle is composed of 3 steps:

Step	Name	Description
1	Wait time	Delay during a defined time before activating heating. Facultative step.
2	Ramp	Progressive increase of the temperature following a limited ramp ($^{\circ}\text{C}/\text{min}$), until reaching the set point temperature.
3	Timer	Stabilization at the set point temperature during a defined time.



The loop option allows to repeat the cycle indefinitely.



In loop mode, the natural cooling period is equal to the wait time. If the wait time is zero, the cycle will maintain the Timer step continuously.

Setting the program parameters:

When you are setting the program's parameters, the controller activates heating to reach the last adjusted set point temperature. So it is advised to set beforehand the set point temperature at 0°C so that the objects do not begin to dry before the beginning of the program; consult the part "[Simple control](#)".

	Procedure	Parameter setting
1.	Press the Program key. The Delay indicator lights. The last wait time set during the previous programming appears on the digital display.	Step 1 = Wait time
2.	Press the Increment and/or Decrement keys to set the new wait time (from 0 minute to 99 hours).	
3.	Press the Program key. The Ramp indicator lights. The last ramp value set during the previous programming appears on the digital display.	Step 2 = Ramp
4.	Press the Increment and/or Decrement keys to set the new ramp of temperature increasing (from 0.1°C/min to 20°C/min).	
5.	Press the Program key. The Timer indicator lights. The last timer time set during the previous programming appears on the digital display.	Step 3 = length of the Timer
6.	Press the Increment and/or Decrement keys to set the new timer time (from 1 minute to 99 hours).	
7.	Press the Program key. The Loop indicator lights.	Loop option
8.	Press the Increment and/or Decrement keys to select YES (loop option activation) or NO (loop option inhibition).	

Launching the program:

1. Set the set point temperature to maintain during the step Timer.
2. Press simultaneously the **Increment** and **Decrement** keys.

The program is launched.

During the wait time (if programmed), the TIME message followed by the remaining wait time and the measured temperature are displayed. The **Delay** and **Loop** (if the Loop option is activated) indicators flash.

At the end of the wait time, the RAMP message followed by the ramp value and the measured temperature are displayed. The **Ramp** and **Loop** (if the Loop option is activated) indicators flash. The **Heating** indicator lights.

At the end of the temperature increasing ramp, the TIME message followed by the remaining time of the temperature stabilization and the measured temperature are displayed. The **Timer** and **Loop** (if the Loop option is activated) indicators flash.

At the end of the stabilization time at the set point temperature, the controller cuts off heating (if the Loop option is inhibited) and a beep sounds. To cut the beep off, stop the program.

If the Loop option has been activated, the cycle is continuously repeated until the intervention of the operator.

Stopping the program:

To stop the program, press simultaneously the **Program** and **Decrement** keys.

Important: At the program stopping, the controller keeps controlling at the last set point temperature set (the program one).

The beep is cut off (if the Loop option is inhibited). The STOP message appears on the digital display. All indicators of the controller light.

To heat no longer, set the set point temperature at 0°C.

Setting of the offset

The control chain had been tested and calibrated in factory. However it is advised to calibrate it again each year. To adjust the offset of the controller, you need first compare the measurement of the oven with a calibration probe inserted by the access port.

Explanations about C3000 offset:

A null offset is transcribed by 0.0.

A 0.1 offset is equivalent to have +0.1°C.

A 0.2 offset is equivalent to have +0.2°C.

A 553.5 offset is equivalent to have -0.1°C.

A 553.4 offset is equivalent to have -0.2°C.

Etc...

1. Power the oven up.
2. Press the "P" key of the controller for about 5s until a value (value of the old offset adjustment) appears on the controller's display.
3. Adjust the offset value with the "up arrow" and "down arrow" keys.

After few seconds, the controller changes display; the value is automatically recorded.

Example:

Problem: the C3000 controller displays 150°C whereas the calibration probe measures 149°C. You must decrease the offset value with 1.0 (= 10 tenth).

If the offset set in factory is 0.4, you must decrease the offset value until 553.