CALEFFI Hydronic Solutions

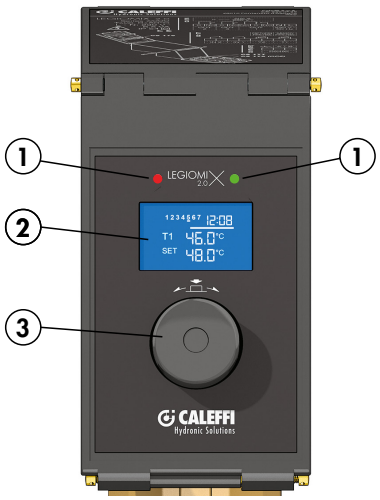
Hybrid electronic mixing valve

6000 series LEGIOMIX 2.0

PROGRAMMING MANUAL

CONTENTS

Front panel



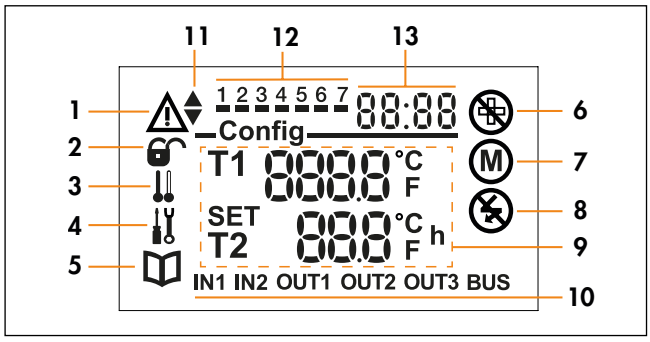
1) LED indicators:

green LED on: mains LED

fixed red LED: disinfection in progress, acquisition of full scale and thermal shock in progress: potentially hazardous condition

red flashing LED: alarm condition

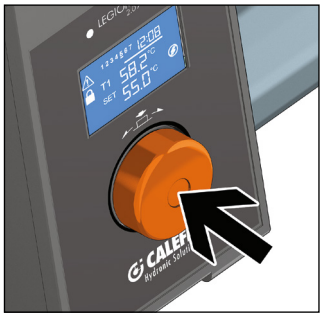
2) LCD display:



1) Warning signal
2) "Installer menu" block
3) SET temperature not reached
4) Maintenance
5) Manual
6) Disinfection/thermal shock not performed
7) Motor in operation
8) No mains voltage
9) Functional parameters
10) Outlets and inlets
11) Motor movement
12) Days of the week/time bands
13) Clock

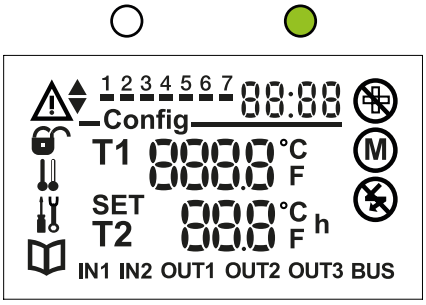
3) Control knob

Turning the knob scrolls through the menus.
Pressing the knob confirms the selected values (depending on the pressing time it is possible to access several work screens. See page 9).

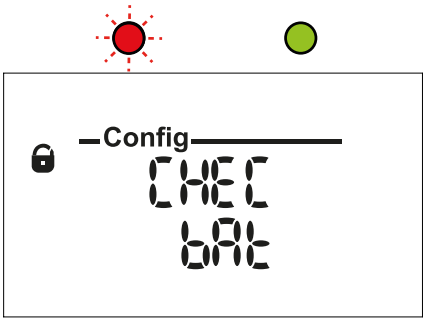


Display when switched on

When the device is switched on, the green LED lights up and the following screen appears on the display.



After about 2 seconds, the battery control screen will appear on the display.

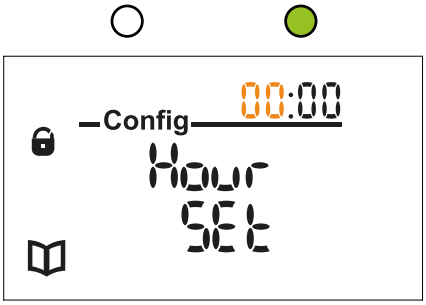


It is necessary to check the presence of the battery in the appropriate seat. Before carrying out this check, remove electric supply, check that the battery is properly fitted, reconnect the electric supply, and confirm pressing the knob, when the previous screen reappears. When the device is switched on again, the red LED will stop flashing.

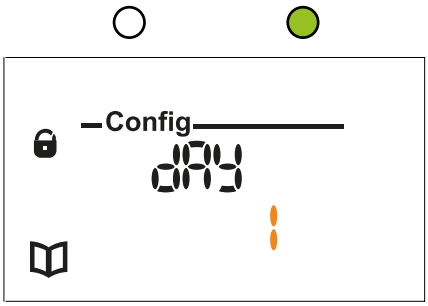
Important: If the battery is not inserted or it is low, the appliance will still work, but in the event of a power failure the time will not be saved.
It is recommended to refer to the alarm section in this manual. (For correct battery installation, see the "Installation and commissioning manual", supplied in the package).

Date and time configuration

When the battery checks are completed, the device time and date configuration starts.
Use the knob to change the valuesand press to confirm.
- Enter the time turning the knob
- Press the knob to confirm the time set
- Enter the minutes turning the knob
- Press the knob to confirm the minutes set

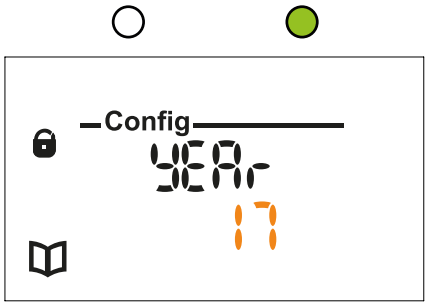


- Insert the day turning the knob
- Press the knob to confirm the day set

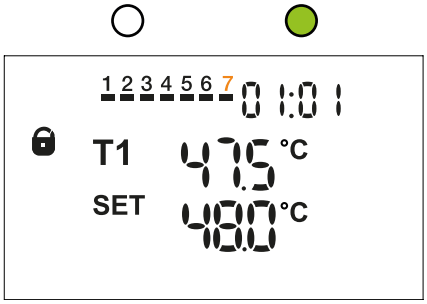


- Enter the month turning the knob
- Press the knob to confirm the month set

- Enter the year turning the knob
- Press the knob to confirm the year set



During the date and time configuration, the device performs the full scale and zero acquisition, and after the year has been confirmed, the device enters in water mixing mode and the following screen is displayed.



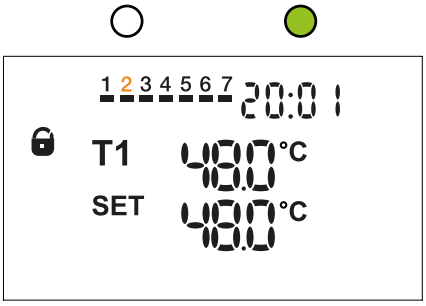
IMPORTANT: Completing the date and time setting, the device starts the water mixing function with the default parameters (table on page 8). If the probe T2 is not connected, the relevant alarm is triggered. If the initial parameters have not been confirmed, the device does not perform the disinfection.

Operating status

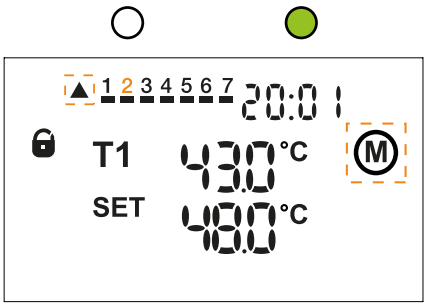
During the operation of the device, the following work states can be displayed:
1 - Reached setpoint
2 - Adjustment in progress
3 - Disinfection in progress
4 - Thermal shock in progress
5 - Zero and full scale acquisition

The LCD display indicates the device status, as shown in the following screens.

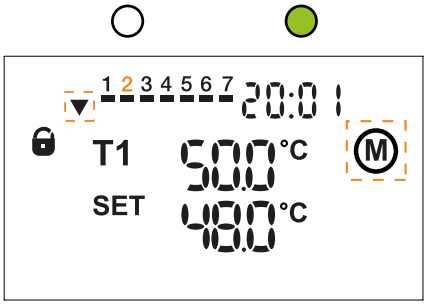
1 - Reached setpoint:
Water mixing with set point reached. Motor stopped.



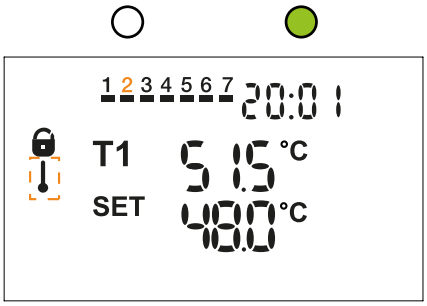
2 - Adjustment in progress:
a) Water mixing with temperature rise. Motor opening indicated by the following symbols.



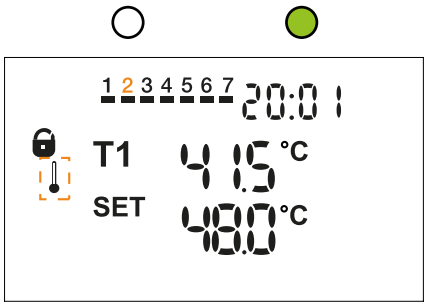
b) Water mixing with temperature decrease. Closed motor indicated by the following symbols.



c) Reaching the closing limit switch and T1> TSET. The mixer can not reach the set value, even though it is in the maximum closing position; therefore the following symbol is displayed.



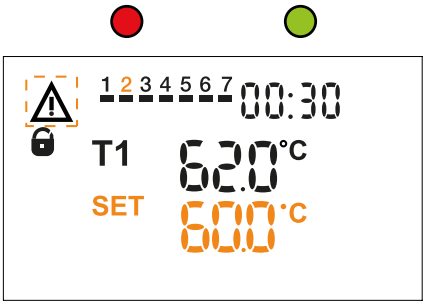
d) Opening limit switch reaching and T1<TSET. The mixer is unable to reach the set value even if it is in the maximum opening position; therefore the following symbol is displayed.

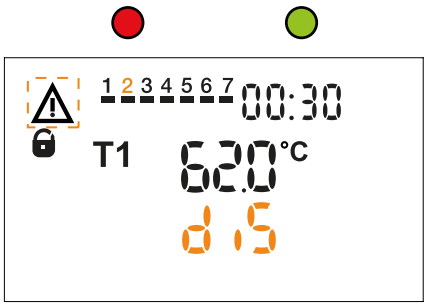


The electronics must adjust the flow temperature through the actuator in order to reach the working set-point. The electronic actuator adjusts the flow so as to have a temperature centered in a suitable working range, within which the fine and dynamic adjustment is made by the thermostat. The water mixing temperature is set through the interface. The management system always checks in real time the flow temperature detected by the probe: if the flow temperature deviates excessively from the set value, a correction is made through the electric motor. In the case of installation with a return probe present, it is not used for the water mixing temperature adjustment.

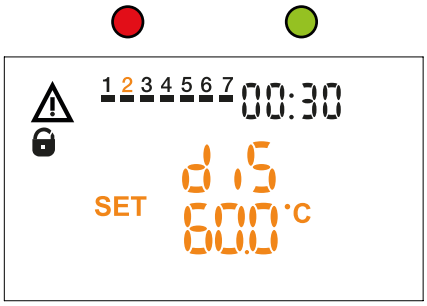
3 - Disinfection in progress:

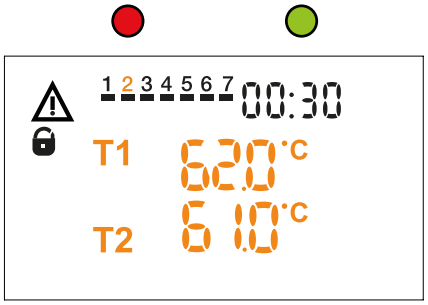
a) Disinfection in progress with control on flow probe T1 (see table on page 5). During disinfection, the following two screens are shown alternating on the display. The alternating parts are in orange.





b) Disinfection in progress with control on return probe T2 (see table on page 5).





In this mode, the device performs thermal disinfection, which consists in raising the mixed water temperature for a defined period of time.
The following can be set:

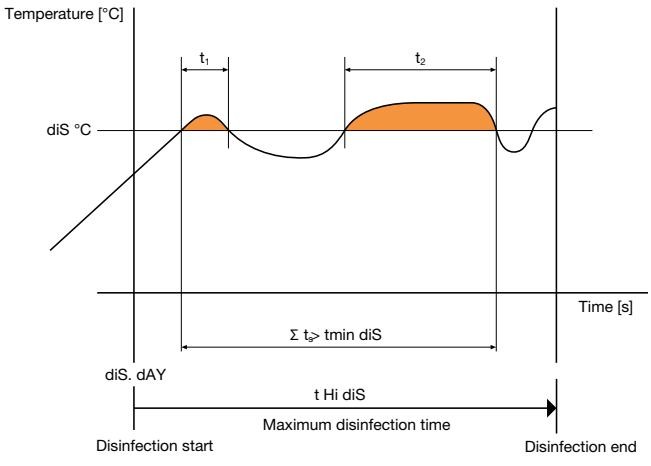
- Days of the week for performing the disinfection
- Minimum disinfection temperature
- Disinfection start time
- Minimum stay time above the minimum disinfection temperature in order to evaluate the successful outcome of the disinfection
- Maximum time within which it is possible to perform the disinfection

The disinfection can be:

- Programmed: it starts in the days and hours set
- Activated through the control: it can be controlled by the device from the "Controls sub-menu" or remotely through optional board
- Activated by IN1 inlet

The disinfection in progress OUT3 relay and the recirculation pump management OUT2 relay are always activated during the disinfection. If the disinfection temperature does not last for sufficient time and the maximum available time is exceeded, the disinfection will be considered as failed by signalling the relevant alarm.

CHECK ON DISINFECTION



Disinfection programs:

Different programs can be set, chosen according to the type of system and its management:

Disinfection type with flow probe T1 enabled	
Disinfection Code	**Description**
d1	Disinfection performed at maximum available flow temperature, limited to the system maximum temperature set (T1 Hi). Disinfection check performed on probe T1.
d2	Disinfection performed at the minimum disinfection temperature (diS °C). Disinfection check performed on probe T1.

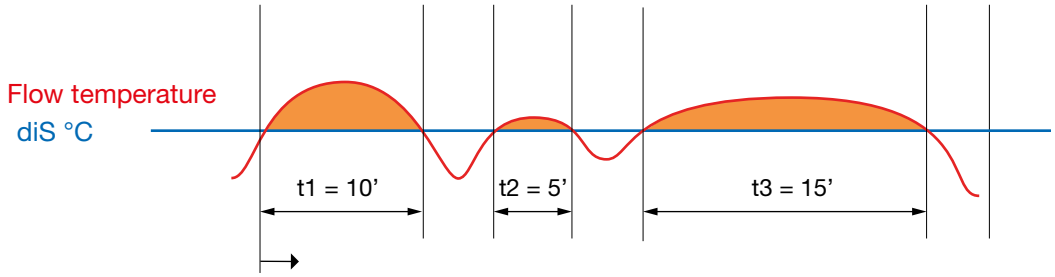
Disinfection type with recirculation probe T2 enabled	
Disinfection Code	**Description**
d1	Disinfection performed at maximum available flow temperature, limited to the system maximum temperature set (T1 Hi). Disinfection check performed on probe T2.
d2 (default)	Disinfection at the flow temperature calculated according to the return temperature T2. Disinfection check performed on probe T2.

Disinfection is considered successful when the temperature of the probe enabled remains above the minimum disinfection temperature (diS °C) for a minimum set time (tmin diS) within a maximum time limit (tHi diS).

ECO FUNCTION	
The ECO function does not take into account the minimum disinfection time, but calculates it based on the actual temperatures according to the following table. If the temperature drops below 60°C, counting starts from the beginning.	
Temperature [°C]	Time [min]
60	36
65	18
70	12
The ECO function is applicable to all disinfection modes, before using this mode, it is necessary to check that the proposed disinfection times are in accordance with the regulations in force in the country of installation.	

Example with ECO function disabled.

Disinfection code: d1
Flow temperature = Maximum available temperature
Minimum disinfection time = minimum disinfection time diS °C = 30’

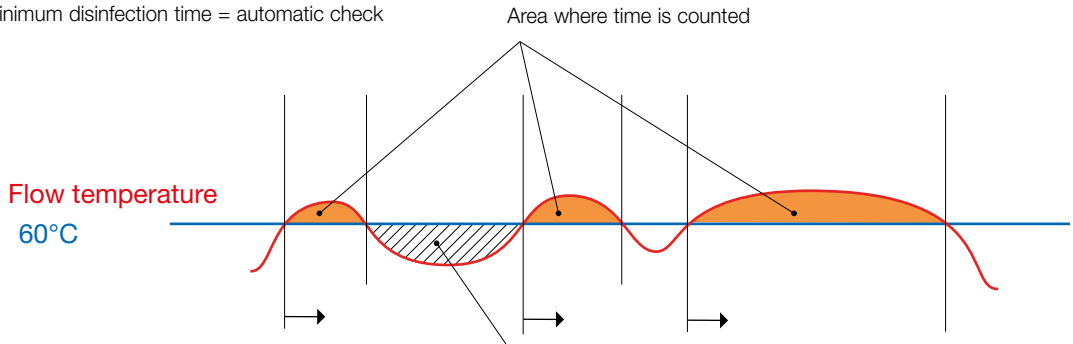


Disinfection is considered successful when:

$\Sigma\ t_s \geq t\text{min dis}$

Example with ECO function enabled.

Disinfection code: d1 - ECO function
Flow temperature = Maximum available temperature
Minimum disinfection time = automatic check



Disinfection is considered successful when the following conditions are continuously respected:
Flow temperature ≥ 60°C → minimum time = 36'
Flow temperature ≥ 65°C → minimum time = 18'
Flow temperature ≥ 70°C → minimum time = 12'

When the temperature drops below 60°C, the countdown stops and resumes from zero when it returns above this value.

Disinfection activation with connection through inlet IN1

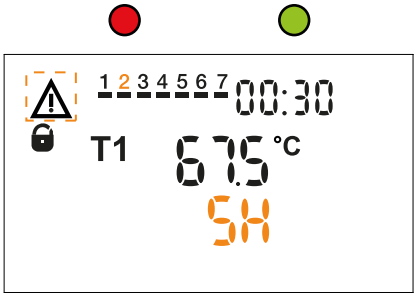
MODE	START	END	DESCRIPTION
in1	Manual activation through switch	Manual end through switch	Disinfection status persists even beyond the maximum time set tHi diS and ends with the manual opening of the contact
in2 **(default)**	Manual activation through switch	Automatic end or through switch	The disinfection status persists up to the maximum time set tHi diS or with the manual opening of the contact
in3	Manual activation through button	Automatic end	The disinfection status ends as soon as the minimum disinfection time tmin diS is exceeded or within the maximum set time tHi diS

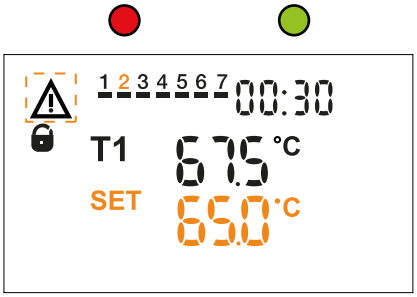
IMPORTANT: The activation of the disinfection through the inlet IN1 does not exclude the programmed disinfection.

Disinfection interruption:
Disinfection can be interrupted while it is still in progress, with the following modes:
- holding down the knob for 10 seconds and confirming the "Disinfection stop" control
- from the "Programming Menu", setting the disinfection control to OFF
- opening the inlet IN2 contact (normally closed)
- remotely through the optional board CS179.

At the end of disinfection, the device performs a zero acquisition and returns in water mixing mode indicating the failed disinfection, if any.

4 - Thermal shock in progress:
Thermal shock in progress with control on flow probe T1. During the thermal shock, the following two screens are shown alternating on the display. The alternating parts are in orange.





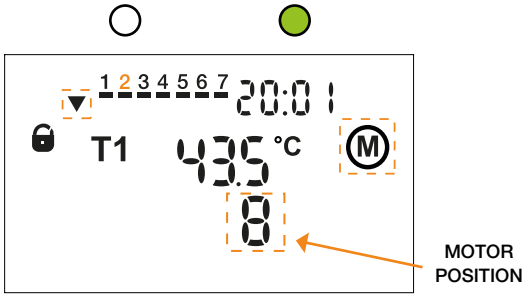
The thermal shock is activated manually through the activation control SH in the "Controls Sub-menu".
In this mode, the device raises the flow temperature to the set value for a certain period of time. The disinfection in progress OUT3 relay and the recirculation pump management OUT2 relay are always activated during the thermal shock. A thermal shock can be interrupted while it is still in progress, with the following modes:
- holding down the knob for 10 seconds and confirming the "Disinfection stop" control
- from the "Programming Menu", setting the disinfection control to OFF
- opening the inlet IN2 contact (normally closed)
- remotely through the optional board CS179.

At the end of the thermal shock, the device performs a zero acquisition and returns in water mixing mode indicating the failed thermal shock, if any.

IMPORTANT: Check that the set thermal shock temperature (SH) is lower than the plant protection temperature (T1 Hi).
N.B.: With default settings, the thermal shock will fail.

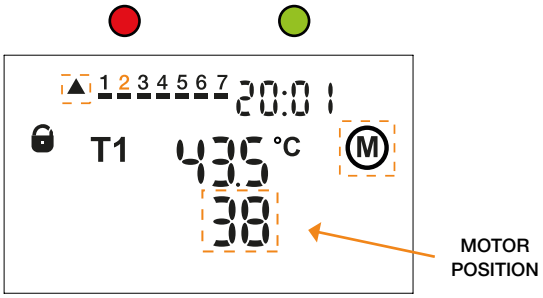
5 - Zero and full scale acquisition:

A) Zero acquisition



IMPORTANT: After each motor installation operation, it is necessary to repeat the zero acquisition operation.

B) Full scale acquisition



In the zero acquisition mode, the device totally closes the adjusting screw to check the correct phasing between the motor and the valve. In full scale acquisition mode, the device fully opens the adjusting screw so it can check all the stroke (potentially hazardous condition indicate with fixed red LED).
The zero and full scale acquisition controls are activated during the installation or after the "Reset alarms" control.
Additionally, the zero acquisition mode is activated whenever an electric supply failure occurs for at least 60 minutes and at the outlet from any disinfection/thermal shock. It is recommended to perform the full scale acquisition with shut-off valves closed at the mixing valves inlets.

Reset
In the menu there is a special control to reset to the initial conditions. The history is not reset.

Test
The device performs full strokes in order to check that there are no obstructions during the motor opening and closing strokes. The display shows the encoder steps and the rotation speed.
It is possible to interrupt the test function at any time pressing the control knob.

ACTUATION RELAY:

The electric supply board CS176 show the relay contacts used for the auxiliary appliances and alarms control.
- OUT1: generic alarm relay (double contact in deviation)
- OUT2: relay for recirculation pump (active in disinfection, thermal shock and selected recirculation time band)
- OUT3: relay for disinfection in progress (active in disinfection and thermal shock)

Actuation relay status summary table:

OPERATING STATUS	ADJUSTMENT	ADJUSTMENT WITH ACTIVE RECIRCULATION	DISINFECTION	THERMAL SHOCK	MAINS ABSENCE	ALARM
Relay	**Contact status**	**Contact status**	**Contact status**	**Contact status**	**Contact status**	**Contact status**
OUT1	NO Closed	NO Closed	NO Closed	NO Closed	NC Closed	NC Closed
OUT2	Open	Closed	Closed	Closed	Open	Table “Alarm management”
OUT3	Open	Open	Closed	Closed	Open	Open

Operating parameters and default values
The operating parameters can be set in the appropriate menus, and are summarised in the following table:

No.	Parameter	Description	Setting range	Factory (default) configuration
1	PASS	"Installer Menu" access password	0000-9999	**2222**
2	Id	Identifies the product among those connected to the BUS	from 1 to 255	**1**
3	T1 T2	Disinfection probes enable	T1 = flow probe enabled T2 = recirculation probe enabled	**T2**
4	T1 Hi	Maximum temperature limit: system protection	from 65°C to 85°C	**65°C**
5	SH °C	Thermal shock temperature	from 65°C to 85°C	**65°C**
6	t min SH	Minimum time for which the temperature must remain above the set temperature for the thermal shock	from 1 to 4320 minutes	**0005 minutes**
7	t Hi SH	Maximum time available within which it is possible to perform the thermal shock	from 1 to 4320 minutes	**0010 minutes**
8	rSt cmd	Control to reset the device to factory default configuration	on – oFF	**oFF**
9	C-F	Temperature measurement unit	C = Celsius F = Fahrenheit	**C**
10	T1	Flow temperature in adjustment phase	from 35°C to 65°C	**48°C**
11	dAY	Day setting	from 01 to 31	**01**
12	mont	Month setting	from 01 to 12	**01**
13	YEAr	Year setting	from 00 to 99	**17**
14	Hout	Time format selection	12H - 24H	**24H**
15	Hour :	Hours/minutes setting	0 - 23 hours 0 - 59 minutes	**00:00**
16	dSt	Daylight saving time setting	YES = on NO = off	**On**
17	tYPE diS	Disinfection program change	d1-d2	**d2**
18	SEL In	Type of inlet IN1 selection	In1 - In2 - In3	**In2**
19	Eco	ECO mode	on - oFF	**oFF**
20	diS °C	Minimum disinfection temperature setting	from 50°C to 85°C	**60°C**
21	diS dAY	Disinfection start day, time and minutes setting	1 2 3 4 5 6 7	**1 2 3 4 5 6 7 at time 02:00**
22	t min diS	Minimum time for which the temperature must remain above the set temperature for disinfection	from 0 to 600 minutes	**0030 minutes**
23	t Hi diS	Maximum time available within which it is possible to perform the disinfection	from 3 to 900 minutes	**0060 minutes**
24	r ic	OUT2 relay enable in the 6 time bands	1 2 3 4 5 6	**1 2 3 4 5 6**
25	dn	Valve DN size	15-20-25-32-40-50	**Depending on the valve**
26	PAr SEt	Communication protocol parity	EVEn - nonE	**EVEn**

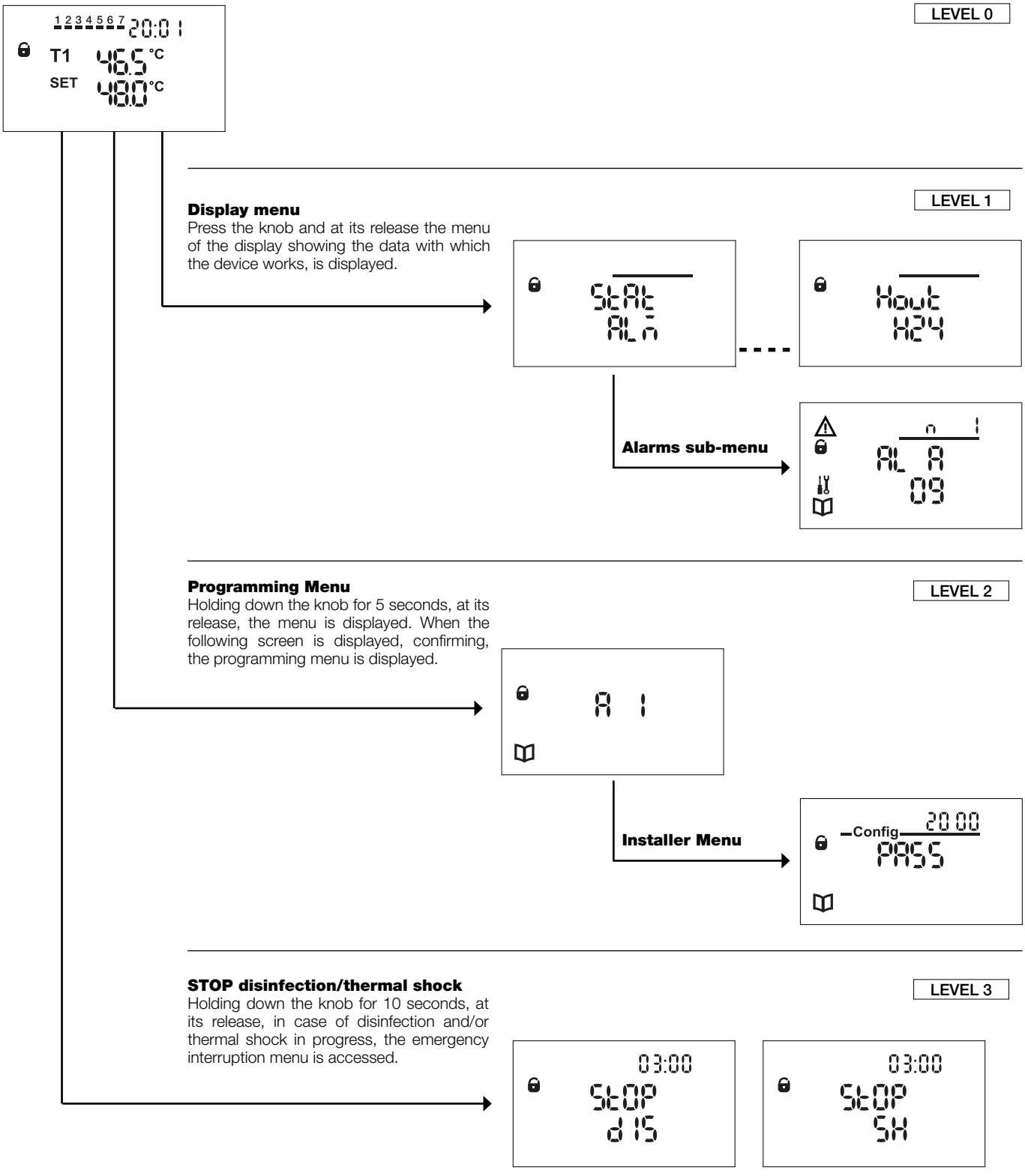
To ensure proper operation of the device, set the maximum temperature of the system (T1 Hi) 5°C higher than the adjustment temperature value (T1).

Log

The device, through the optional data transmission board CS179 (code 600001) system allows recording the flow temperature, return temperature, alarms and functional statuses, useful for monitoring the operation status of the device. It will then be possible to export the data from the device through a PC interface. In addition, there is a failed disinfection menu on the device (the last 10 disinfections that have not been completed correctly are stored).

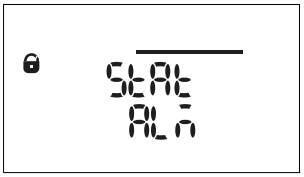
General menu

The device operation is based on an internal clock with calendar and automatic time adjustment. Navigating through appropriate menus, using the knob, it is possible to configure the device. Whatever status the appliance is in, it is always possible to navigate around the various menus to read and change the various settings. The general menu structure is as follows:

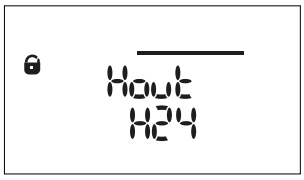


IMPORTANT: From each screen, it is possible to return to the previous level holding down the knob for 5 seconds and releasing it.

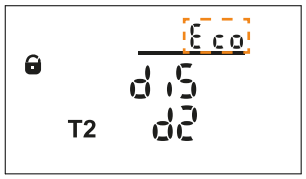
Display Menu:
During the operation of the device, it is possible to enter the "Display Menu" at any time pressing the knob and turning it clockwise or counterclockwise to navigate within the menu.



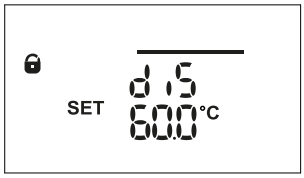
Alarms Sub-menu. From this menu it is possible to display the alarm code, if this is active or with history value, and the number of times it occurred (See page 13). Clear the log using the "Reset alarms" control.



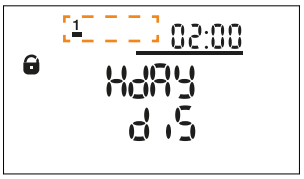
Time format set:
12H or 24H



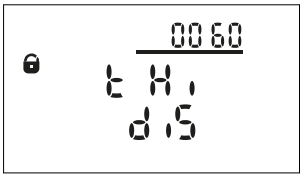
Disinfection type set (and related ECO function enable).



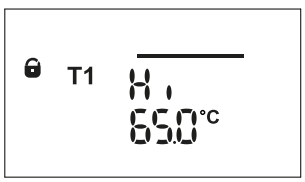
Minimum disinfection temperature set.



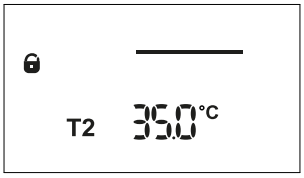
Disinfection start date and time. A screen for the day set is displayed (the segment below the number indicates its activation).



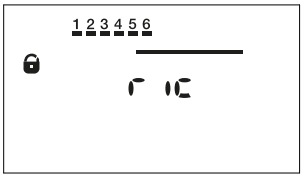
Maximum time within which it is possible to perform the disinfection.



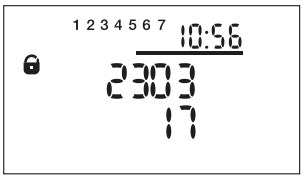
Maximum flow temperature limit: it is a system protection.



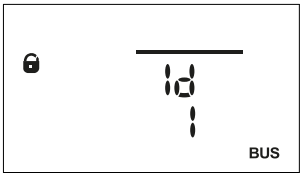
Temperature value measured by probe T2.



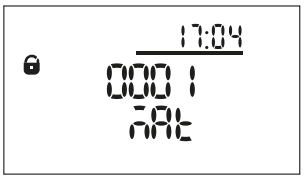
Display of six time bands that can be set for recirculation (OUT2 activation)
1-02:00 and 05:59 4-14:00 and 17:59
2-06:00 and 09:59 5-18:00 and 21:59
3-10:00 and 13:59 6-22:00 and 01.59



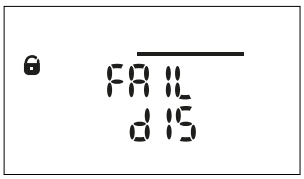
Date and time set.



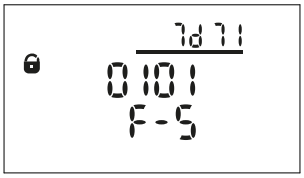
Number that identifies the product among those connected to the BUS.



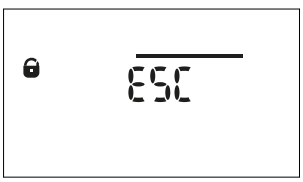
Appliance production batch and serial number.



Log of the last 10 failed disinfections. From this menu it is possible to display the date and time of the last failed disinfections.

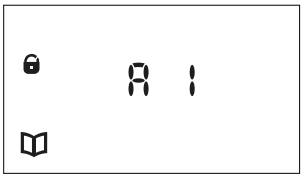


Firmware, Software and Checksum version.

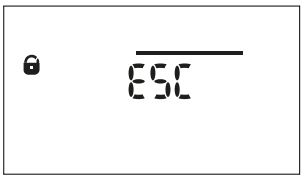


Exit from "Display Menu"

Programming Menu:
From any operation status, pressing the knob for 5 seconds, displays the "Programming Menu".
Access to the menu requires the Password.

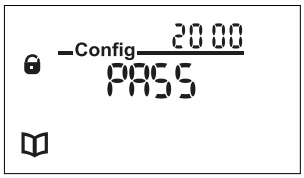


Installer Menu:
Confirm with the knob to enter the menu.



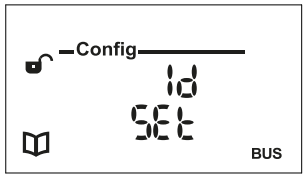
Exit from "Programming Menu"

Installer Menu:



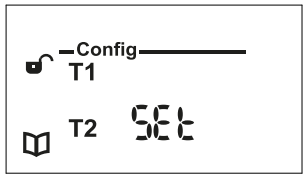
Password entry for menu access.

Default: 2222



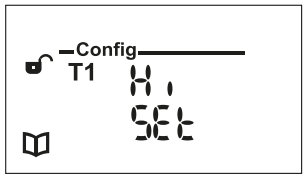
Setting the identification number of the appliance for connection to the BUS.

Default: 1



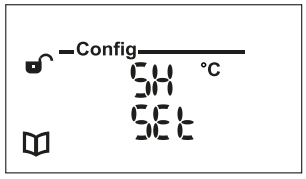
Enable T1 or T2 probe for disinfection.

Default T2



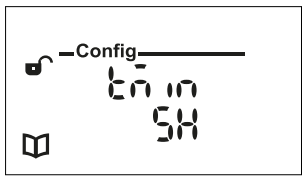
Maximum temperature limit setting for system protection.

Default 65°C



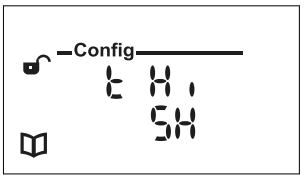
Thermal shock temperature setting.

Default 65°C



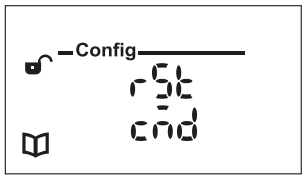
Setting the minimum time during which the temperature must remain above the set temperature for the thermal shock.

Default 5 min.



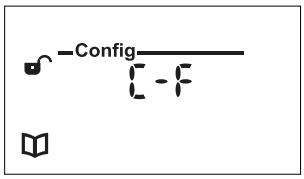
Setting the maximum time available within which it is possible to perform the thermal shock.

Default: 10 min



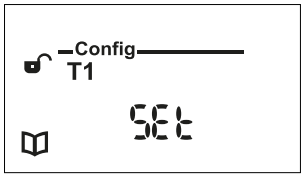
RESET. Control to reset the device to factory default conditions. ON/OFF selection, activating the ON option, the device resets the default parameters and initializes the device.

Default OFF



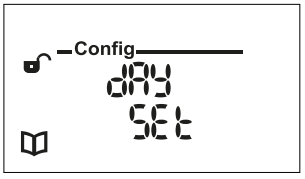
Temperature measurement unit selection.

Default °C



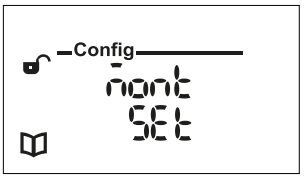
Flow temperature setting at the adjustment phase.

Default 48°C



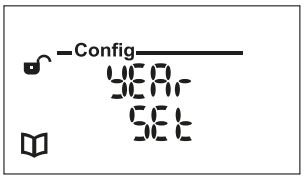
Day setting.

Default 1



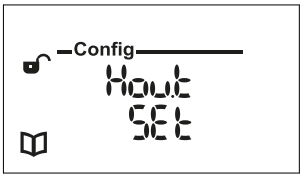
Month setting.

Default 1



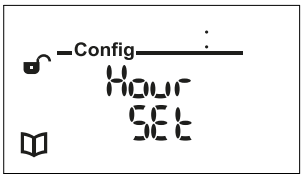
Year setting.

Default 17



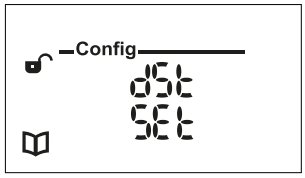
Time format setting to 12H or 24H.

Default 24H



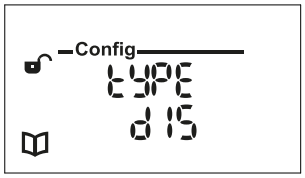
Time setting.

Default 00:00



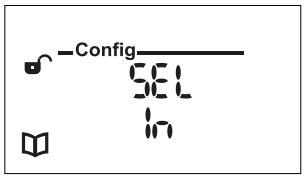
Set summer daylight saving time. ON/OFF selection: activating the ON option will enable the function. Check the disinfection programming.

Default ON



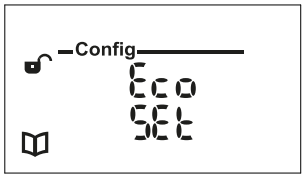
Disinfection program setting.

Default d2



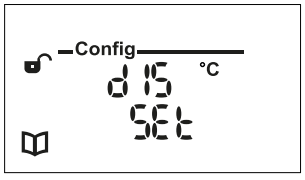
Disinfection mode selection activated by inlet IN1.

Default In2



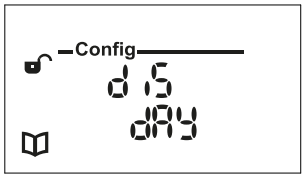
ECO function enable. ON/OFF selection: Activate the ON option to enable the function.

Default OFF



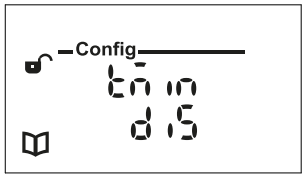
Setting the minimum disinfection temperature, performed on the enabled probe (see probes T1 and T2 enable control).

Default 60°C



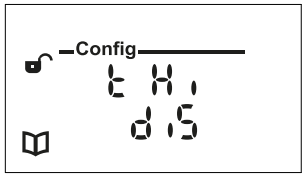
Setting disinfection start day and time (The segment under the day indicates its activation).

Default: Every day 02:00



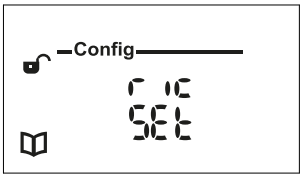
Setting the minimum time during which the temperature must remain above the set temperature during the disinfection phase.

Default 30 min.



Setting of maximum time available in which it is possible to perform the disinfection.

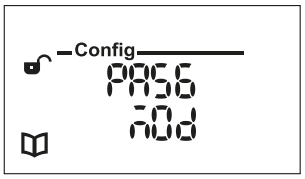
Default 60 min.



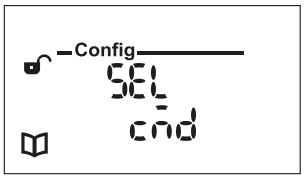
Setting of the six time bands that can be set for recirculation (OUT2 activation)

1-02:00 and 05:59 4-14:00 and 17:59
2-06:00 and 09:59 5-18:00 and 21:59
3-10:00 and 13:59 6-22:00 and 01.59

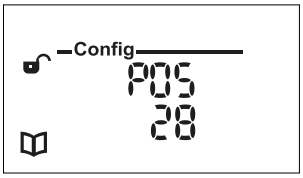
Active default on all ranges



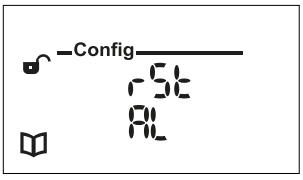
“Installer Menu” password change.



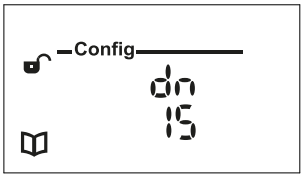
Access to the "Controls sub-menu": Zero acquisition, full scale acquisition, disinfection, thermal shock, test (opening/closing). For details of the sub-menu, refer to the next paragraph.



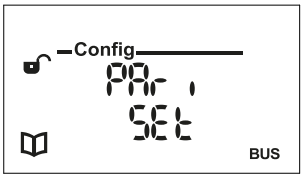
Indicates the motor position.



Alarm reset. Resets active and historicized alarms. The "Alarm Sub-menu" will no longer be displayed until the next alarm. For details on the sub-menu, refer to the relevant paragraph.

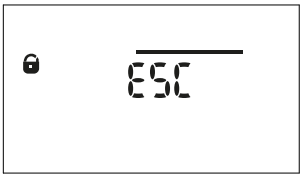


Measurement of the associated valve.



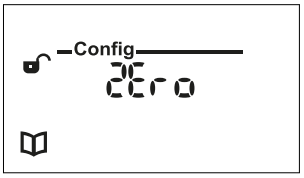
Communication protocol parity setting.

Default: EVEN

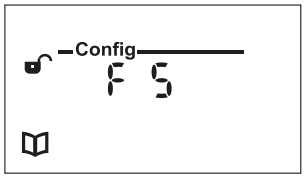


Exit from "Installer Menu"
After a 2 minute time without touching the knob, the menu closes automatically
Programming.

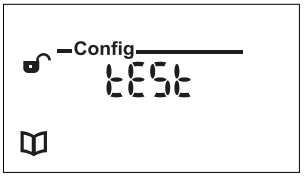
Sub-menu controls:
In the menu there are the following functions:



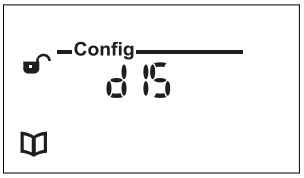
Zero acquisition control. Perform with closed shut-off valves.



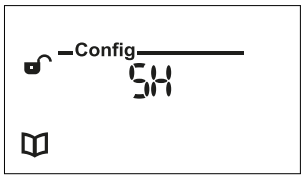
Full scale acquisition control.
Perform with closed shut-off valves.



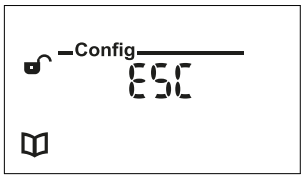
It performs complete continuous opening/closing cycles of the valve.
Perform with closed shut-off valves.



It starts a disinfection with the parameters set.

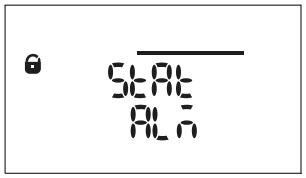


It starts a thermal shock with the parameters set.

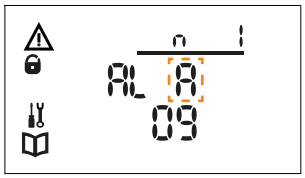


Exits from the "Controls sub-menu".

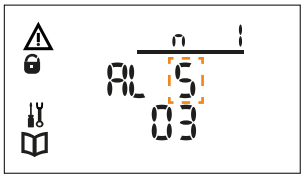
Alarms sub-menu:
In the "Display Menu", when there is any alarm, there is the "Alarm Sub-menu". From the initial screen press the knob, at its release the following screen will be displayed:



Press the knob to display the menu, which displays all the alarms recorded by the device, divided into two types:



ACTIVE alarms:
They are still present and for them no corrective action has yet been taken.



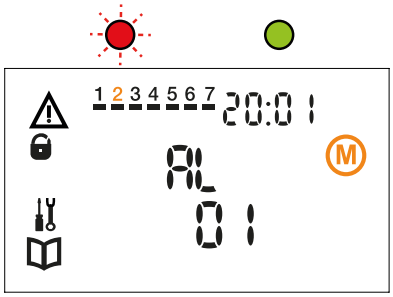
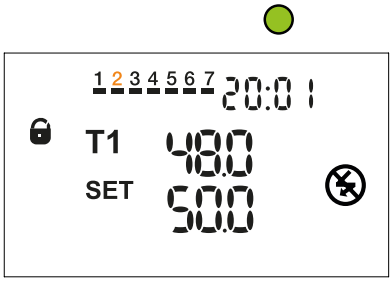
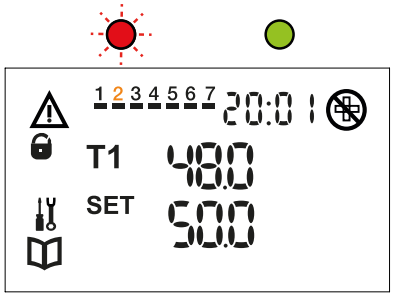
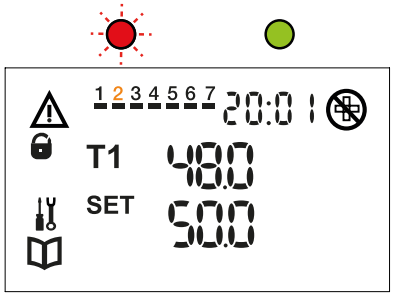
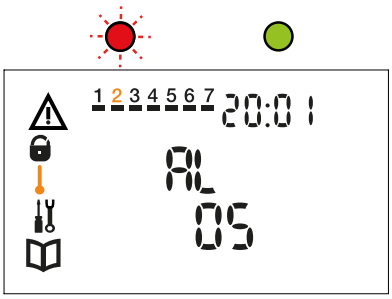
HISTORICIZED ALARM:
The device stores the alarm for which a corrective action has already been taken.

The number of times the error has occurred appears in the top right of the screen.
To delete the alarms from the sub-menu, use the Reset Alarms (Installer menu) control.

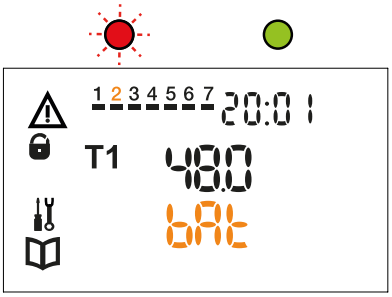
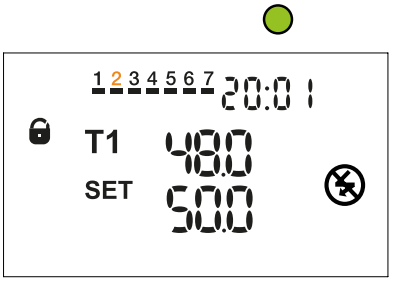
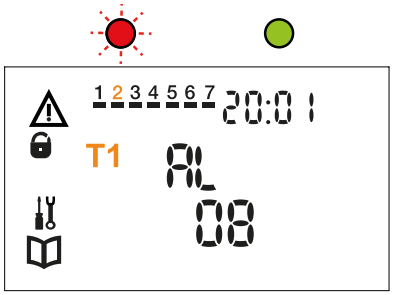
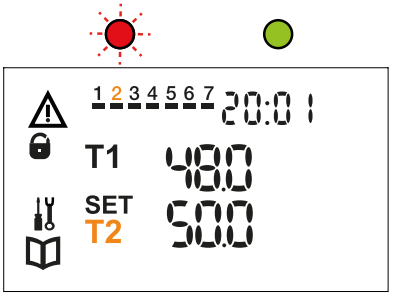
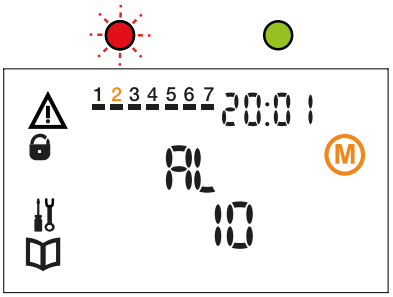
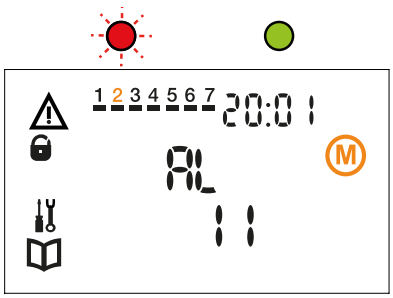
Alarm management

To make it easier to resolve any functional faults that occur after installation and commissioning, the device is configured so that faults are indicated by special alarms so as to take the appropriate action.
The cause of the alarm is displayed in the status log. **If the alarm does not inhibit all functions, only the "Maintenance" and "Manual" symbols will be shown on the display;** the alarm will still be displayed in the appropriate log.
In case of potential hazardous conditions the device sets in a safety condition.

Depending on the type of alarm, certain actions are undertaken, relay statuses modified and information shown on the display and LEDs.
The following table gives a summary of the various operating statuses that follow an alarm.

ALARM CODE	ALARM REPRESENTATION	ALARM DESCRIPTION	ALARM TYPE
AL01		MOTOR OR ADJUSTMENT SCREW LOCKING: possible locking of the adjustment screw in an intermediate position	BLOCKING ALARM
AL02		MAINS VOLTAGE BLACKOUT: indicates that there was an electric supply failure for less than 60 minutes	NON-BLOCKING ALARM: When the electric supply is restored it resumes normal operation
AL03		DISINFECTION FAILED: indicates a failed disinfection	NON-BLOCKING ALARM
AL04		THERMAL SHOCK FAILED: indicates a failed thermal shock	NON-BLOCKING ALARM
AL05		DEVICE MAXIMUM TEMPERATURE EXCEEDING (90°C): indicates that the flow probe T1 has read a temperature value greater than 90°C	SELF-RESETTING BLOCKING ALARM: The device resumes its operation when the probe T1 returns to the set value

RELAY STATUS / WORK STATUS	RECORDING	POSSIBLE CAUSE	REMEDY
OUT1 NC = Closed OUT2 = Open OUT3 = Open The device remains blocked and sets in its closing position, performs the zero and full scale acquisition after the “Reset Alarms” control	YES	- OPERATING SCREW MECHANICAL BLOCK - MOTOR PHASE SHIFT - REGULATOR-ACTUATOR FIXING SCREWS LOOSENING	- "Reset alarms" control: The device performs the zero and full scale acquisition to check that the stroke set is congruent, if it does not find mechanical blocks it resumes normal operation; if during the "Alarms reset" control it does not find the correct stroke, check manually if it performs a 1.5 turn rotation - Check the screws tightening
		- LOOSE MOTOR CONNECTORS	- Check the motor connectors
OUT1 NC = Closed OUT2 = Closed if set OUT3 = Open When the electric supply is resumed, the device restarts the water mixing	YES, at the return of the electric supply mains	- MAINS BLACKOUT - BOARDS CONNECTOR NOT FIXED CORRECTLY	- Check mains electric supply The alarm is not recorded in the alarm log; after 5 minutes the alarm is automatically deleted
OUT1 NC = Closed OUT2 = Closed if set OUT3 = Open The device returns to the water mixing status, the first successful disinfection clears the alarm condition but records it in the log of the last failed disinfections; the display shows the symbol "Manual".	YES, it is also recorded in the last 10 disinfection failed	- DISINFECTION NOT PERFORMED ACCORDING TO THE PARAMETERS SET	- The alarm condition is cleared at the next successful disinfection or by means of the "Reset alarms" control. The result of the disinfection is kept in the log of the last 10 failed disinfections. If the error occurs frequently, check that the parameters set are congruent with the system - Check the recirculation circuit - Check inlet IN2 contact closing
OUT1 NC = Closed OUT2 = Closed if set OUT3 = Open The device returns to the water mixing status	YES	- THERMAL SHOCK NOT PERFORMED ACCORDING TO THE PARAMETERS SET	- The alarm condition is cleared at the next successful thermal shock or through the "Reset alarms” control - Check the parameters - Check the recirculation circuit - Check inlet IN2 contact closing
OUT1 NC = Closed OUT2 = Open OUT3 = Open The appliance sets to the closing position	YES	- SYSTEM ANOMALY - FAULTY FLOW PROBE	- Check the operation of the system or check the actual value measured by the probe comparing it with suitable instruments

ALARM CODE	ALARM REPRESENTATION	ALARM DESCRIPTION	ALARM TYPE
AL06		LOW BATTERY: low battery indication	NON-BLOCKING ALARM: It does not perform the disinfection if there is a voltage failure with consequent loss of time setting
AL07		ELECTRIC SUPPLY FAILURE: indicates that there was an electric supply failure for more than 60 minutes	NON-BLOCKING ALARM: When the electric supply is restored, it resumes normal operation after performing the zero acquisition
AL08		FAULTY FLOW PROBE	SELF-RESETTING BLOCKING ALARM: It does not perform the water mixing, disinfection and thermal shock
AL09		FAULTY RECIRCULATION PROBE	SELF-RESETTING NON-BLOCKING ALARM: It performs only the water mixing. The disinfection and thermal shock functions are inhibited
AL10		MOTOR IN FAILURE	BLOCKING ALARM
AL11		WRONG DN	BLOCKING ALARM

RELAY STATUS / WORK STATUS	RECORDING	POSSIBLE CAUSE	REMEDY
OUT1 NC = Closed OUT2 = Closed if set OUT3 = Open	YES	- LOW BATTERY	- Replace the battery - Check the battery correct installation
When the electric supply is resumed, the device performs the zero acquisition and returns in water mixing mode	YES	- MAINS BLACKOUT - BOARDS CONNECTOR NOT FIXED CORRECTLY	- Check electric supply mains. The alarm must be reset using the "Reset alarms" control - Check the presence and/or correct positioning of the battery activation jumper
OUT1 NC = Closed OUT2 = Open OUT3 = Open The device is set in safety conditions in the closing position	YES	- PROBE T1 NOT CONNECTED OR DAMAGED	- Check that the probe is present and correctly connected, not damaged and, if necessary, replace it.
OUT1 NC = Closed OUT2 = Closed OUT3 = Open The device can only perform the water mixing while maintaining the alarm active	YES	- PROBE T2 NOT CONNECTED OR DAMAGED	- Check that the probe is present and correctly connected, not damaged and, if necessary, replace it.
OUT1 NC = Closed OUT2 = Open OUT3 = Open The device stays blocked, try to perform the zero and full scale acquisition	YES	- DAMAGED OR NOT CONNECTED CORRECTLY MOTOR	- Check that the motor connectors are correctly inserted, perform the “Alarms reset” control
		- REGULATOR-ACTUATOR NOT-CORRECTLY INSTALLED ON THE VALVE	- Check that the regulator-actuator is correctly installed on the valve and press the "Reset alarms” control
OUT1 NC = Closed OUT2 = Open OUT3 = Open The device remains blocked in safety conditions in the closing position	YES	- DN VALVE DIFFERENT FROM THE VALVE SET - MECHANICAL BLOCK - MOTOR PHASE SHIFT	- Perform the "Reset alarms" control and check that the DN set is corresponding to that of the associated valve