ATHENA AT. MT

INSTALLATION MANUAL EN

HANDBUCH DE

MANUAL DE INSTALACION ES

MANUEL D'INSTALLATION FR

MANUALE D'INSTALLAZIONE IT

MANUAL DE INSTALAÇÃO PT

KULLANIM KLAVUZU TR

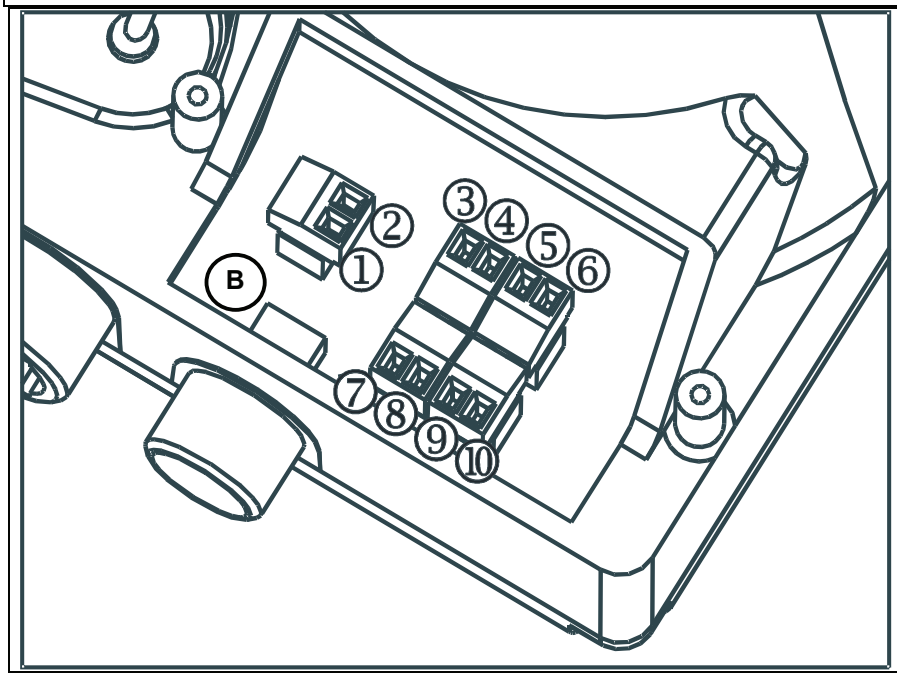
РУКОВОДСТВО ПО УСТАНОВКЕ И ЭКСПЛУАТАЦИИ RU

EM00136269 rev. 1.0

Control panel – ATHENA AT.MT

PROG	Access to the programming menu
mode enter	When pressed during the pump operation phase, it cyclically displays the programmed values on the display; When pressed at the same time + or − keys, it increases or decreases a value dependent on the selected operating mode. During programming it carries out an “enter” function, meaning that it confirms entry to the various menu levels and modifications within the same.
start stop	Starts and stops the pump. In the event of a level alarm (alarm function only), flow alarm and active memory alarm, it deactivates the signal on the display.
ESC	Used to “exit” the various menu levels. Before definitively exiting the programming phase, you will be asked if you wish to save any changes
+	Used to run upwards through the menu or increase the numerical values to be changed. Can be used to start dosage in Batch mode
−	Used to run downwards through the menu, or decrease the numerical values to be changed.
	Flashing green LED during dosage
Alarm	Red LED that lights up in various alarm situations

Electrical connections



1	Alarm relay	
2		
3	Pole +	4-20 mA input signal Input Impedante: 200 ohm
4	Pole -	
5	-Remote control input (start-stop) -Pause signal input	
6		
7	-Frequency signal input (water-meter pulse-sender) -Trigger signal input	
8		
9	Flow sensor input	
10		
B	Input level control	

Programmiermenü ATHENA AT.MT

You can access the programming menu by pressing the PROG key for over three seconds. The ⊕ ⊖ keys can be used to run through the menu items, with the mode enter key being used to access changes.
The pump is programmed in constant mode in the factory. The pump automatically returns to the operating mode after 1 minute of no activity. Any data entered in these circumstances will not be saved.

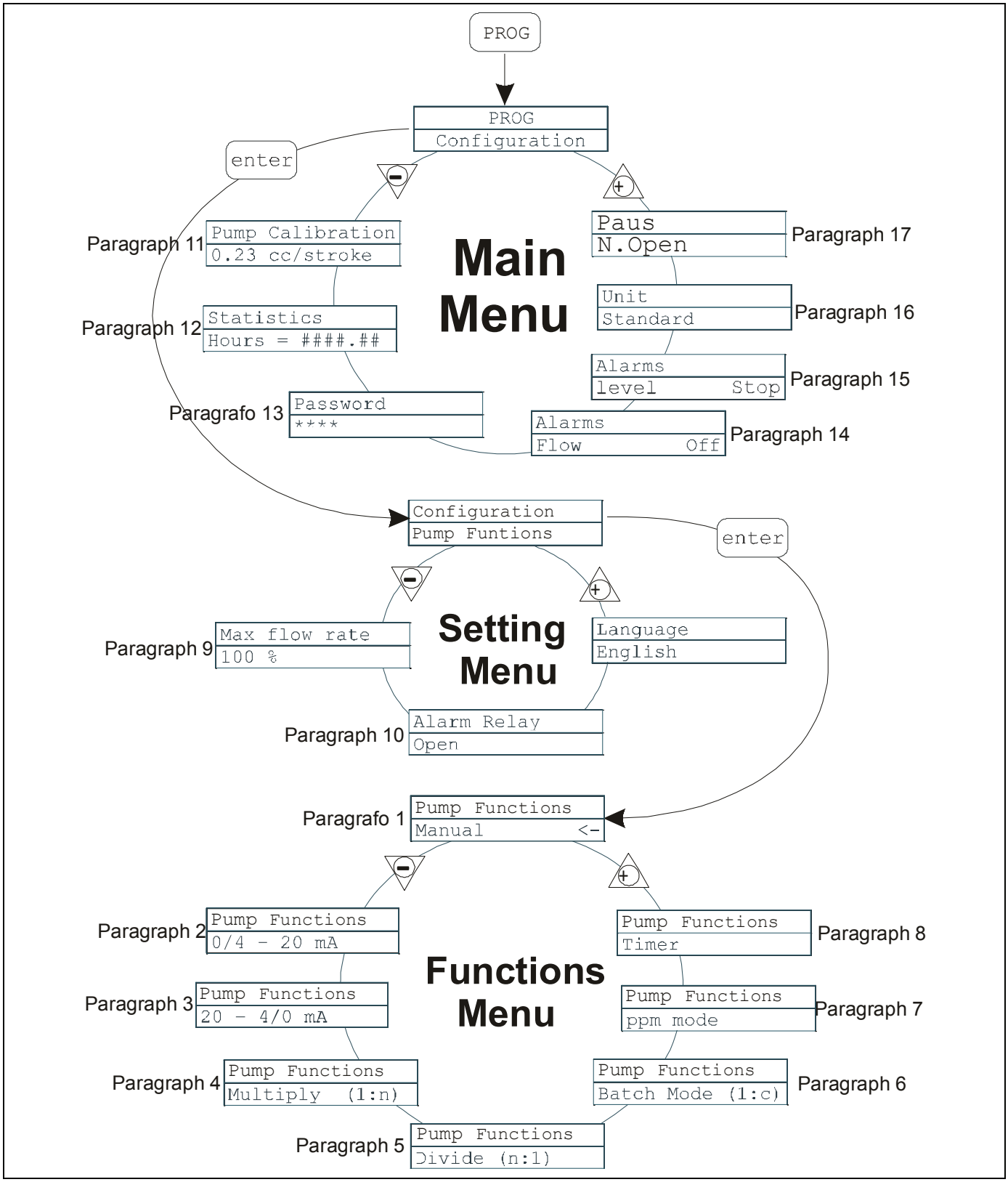
The ESC key can be used to exit the various programming levels. Upon exiting programming, the display will show:

Exit
Don't Save

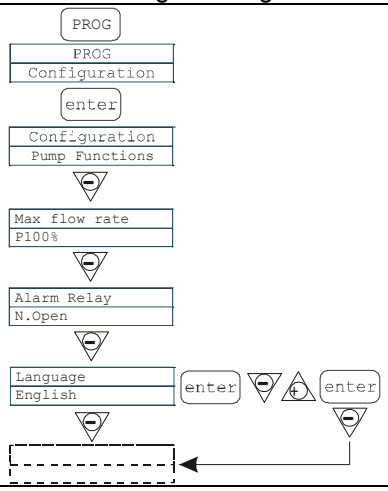
∇ Δ

Exit
Save

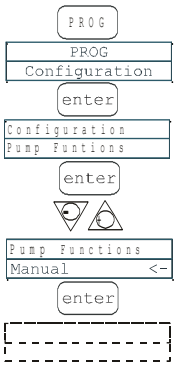
mode enter to confirm the selection

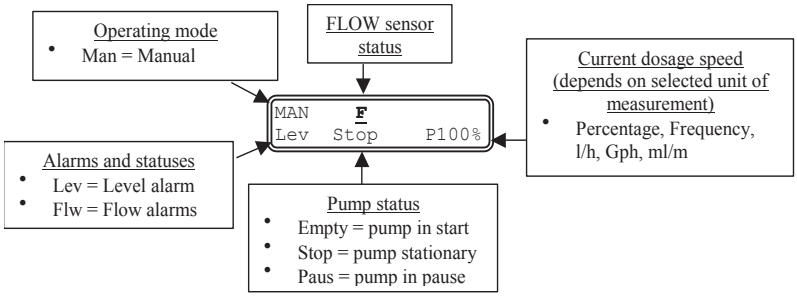
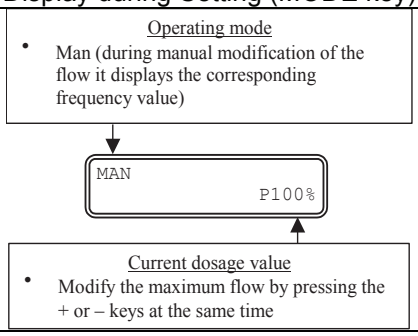


Setting the Language

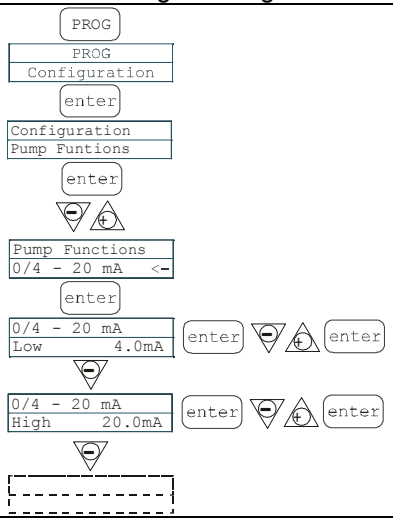
Programming	Operation
	Makes it possible to select the language. The pump is set in English in the factory. Changes can be made by pressing the mode enter key, then using the + − keys to set the new value. Press mode enter to confirm and return to the main menu

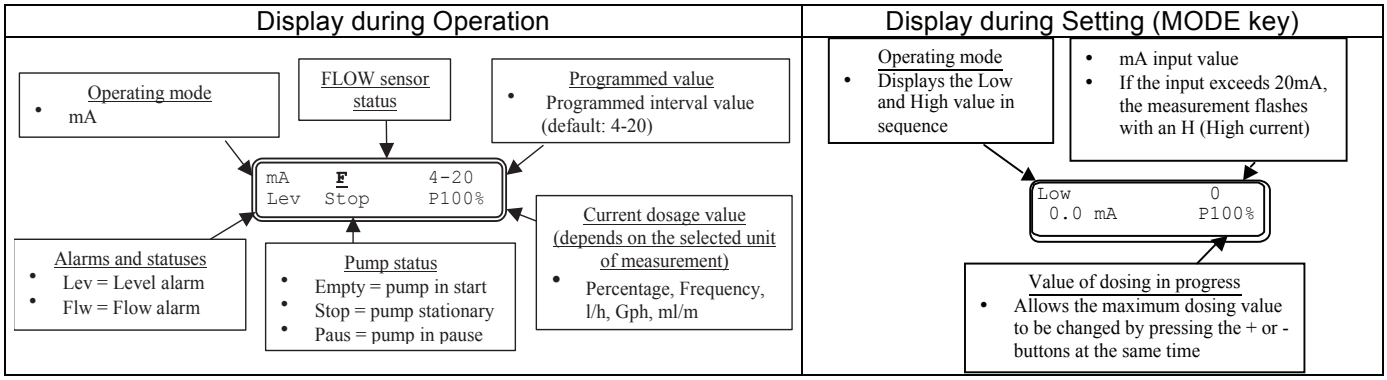
Paragraph 1 – Manual Dosage

Programming	Operation
	The pump operates in constant mode. The flow can only be manually regulated by pressing the mode enter + keys at the same time to increase the flow, or the mode enter − keys to decrease it.

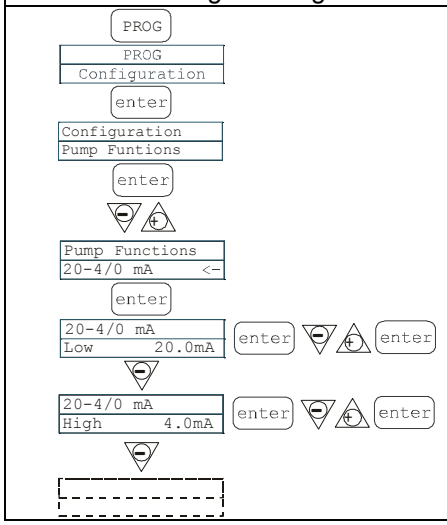
Display during Operation	Display during Setting (MODE key)
	

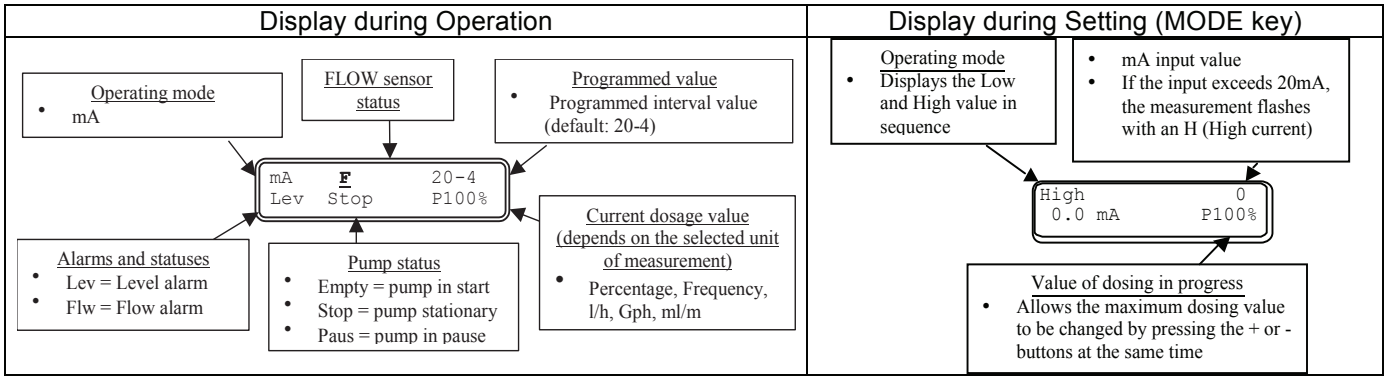
Paragraph 2 - Dosage Proportional to Signal 0/4-20

Programming	Operation
	The pump proportionally doses at a signal of (0)4-20 mA. On the basis of the factory settings, the pump interrupts dosage at 4mA and doses at the maximum set frequency when it receives 20 mA. These two values can be modified during programming. The maximum frequency can be modified during operation, by pressing the mode enter + keys at the same time to increase the flow, or the mode enter − keys to decrease it. For an input signal below 0.2 mA, the alarm LED lights up to indicate the absence of a signal.

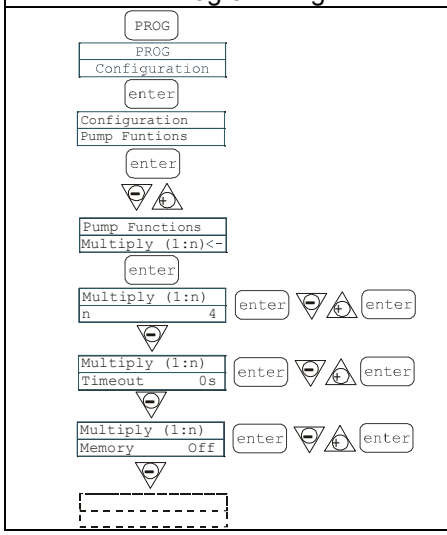


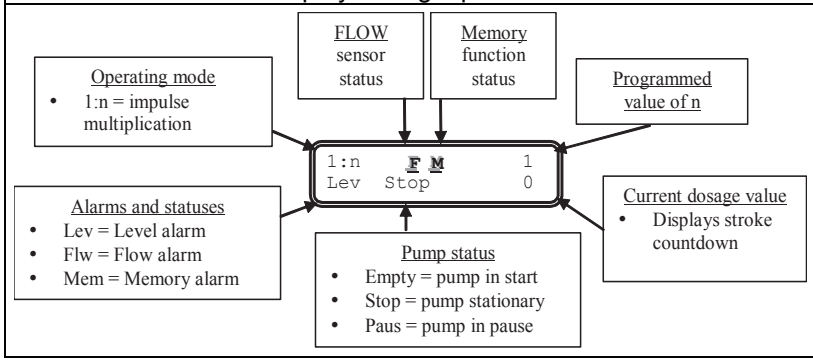
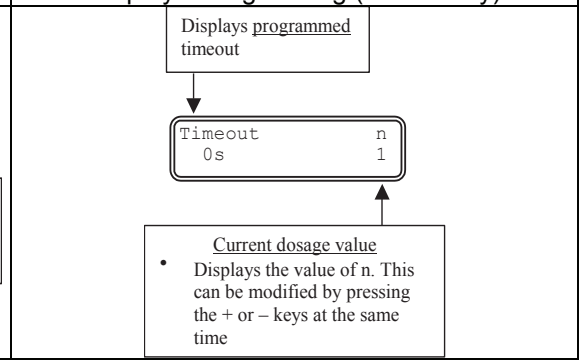
Paragraph 3 - Dosage Proportional to Signal 20-4/0 mA

Programming	Operation
	The pump proportionally doses at a signal of 20-4(0) mA. On the basis of the factory settings, the pump interrupts dosage at 20mA and doses at the maximum set frequency when it receives 4 mA. For an input signal below the minimum value - 0.2 mA (fixed threshold) (e.g. 4 - 0.2 = 3.8 mA) the alarm LED lights up to indicate the minimum value has been exceeded, but the pump continues to dose at the maximum frequency. These two values can be modified during programming. The maximum frequency can be modified during operation, by pressing the mode enter + keys at the same time to increase the flow, or the mode enter − keys to decrease it. For an input signal below 0.2 mA, the alarm LED lights up to indicate the absence of a signal and the pump interrupts dosing.

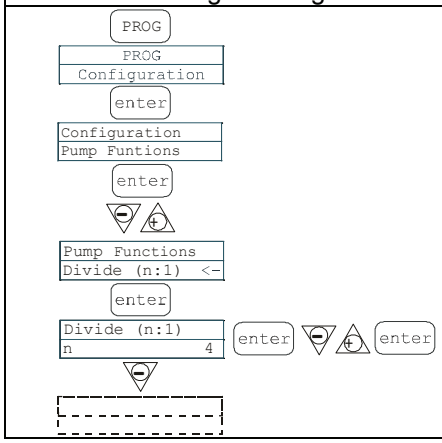


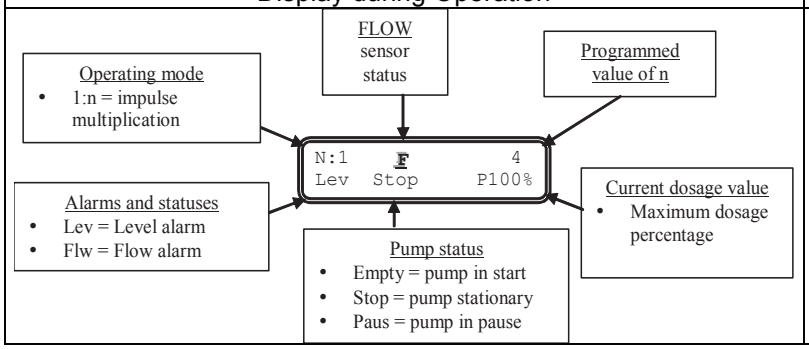
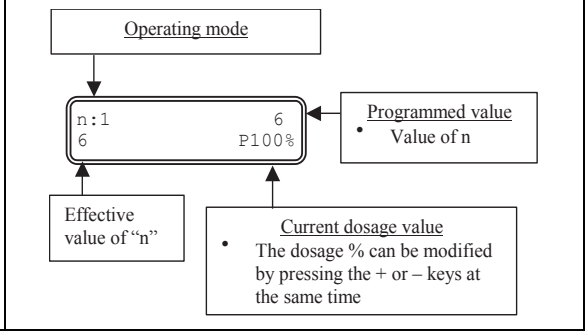
Paragraph 4 – Proportional to External Impulses (multiplication)

Programming	Operation
	The pump doses in proportion to an external signal (i.e.: impulse launch counter). With every signal received, the pump makes the programmed “n” number of strikes. The pump automatically sets the dosage frequency, adapting it to the time that passes between two successive signals. It is possible to set the time (timeout) in seconds, beyond which the pump resets the interval count in order to avoid dosages over excessively long times. The pump has a memory function, which signals the reception of a signal during dosage. If set to Off, it merely sends a signal, if set to On it sends a signal and memorises the impulses, then executes them when it has finished receiving signals. The value of “n” can be modified during operation, by pressing the mode enter + keys at the same time to increase the flow, or the mode enter − keys to decrease it.

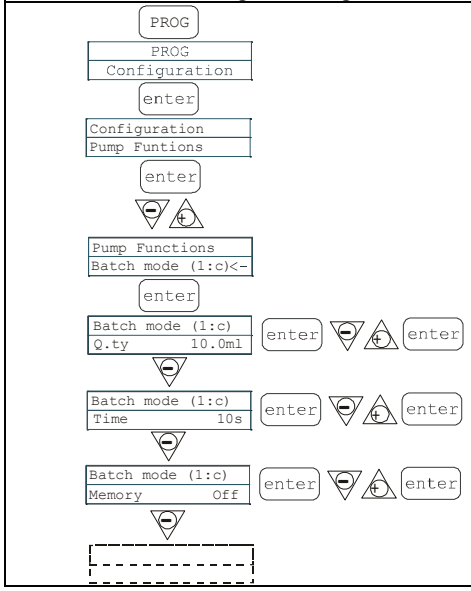
Display during Operation	Display during Setting (MODE key)
	

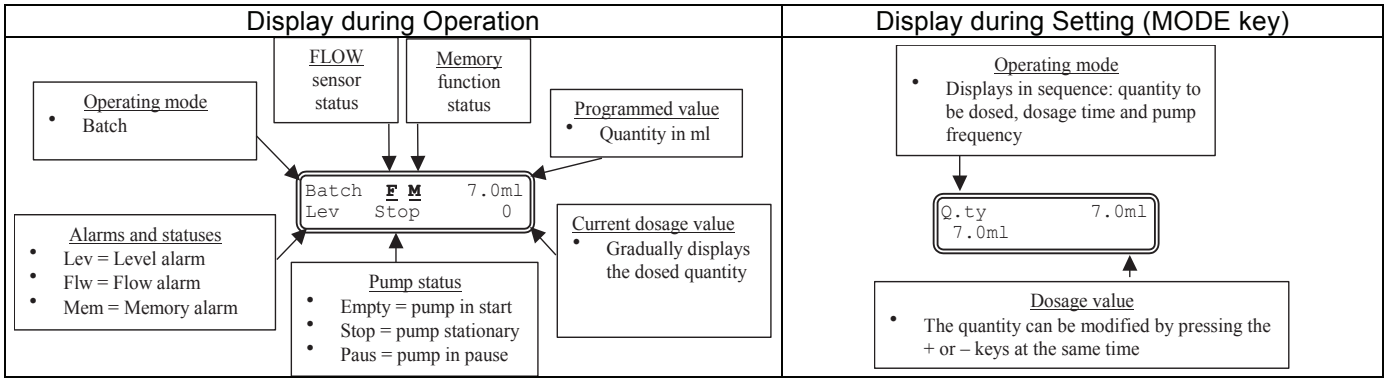
Paragraph 5 – Proportional to External Impulses (division)

Programming	Operation
	The pump doses in proportion to an external signal (i.e.: impulse launch counter). At every "n" signals, the pump makes a strike. You can set the value of "n" during programming. By programming the value of "n" you set the maximum dosage %. This value can be modified during operation, by pressing the mode enter + keys at the same time to increase the flow, or the mode enter – keys to decrease it.

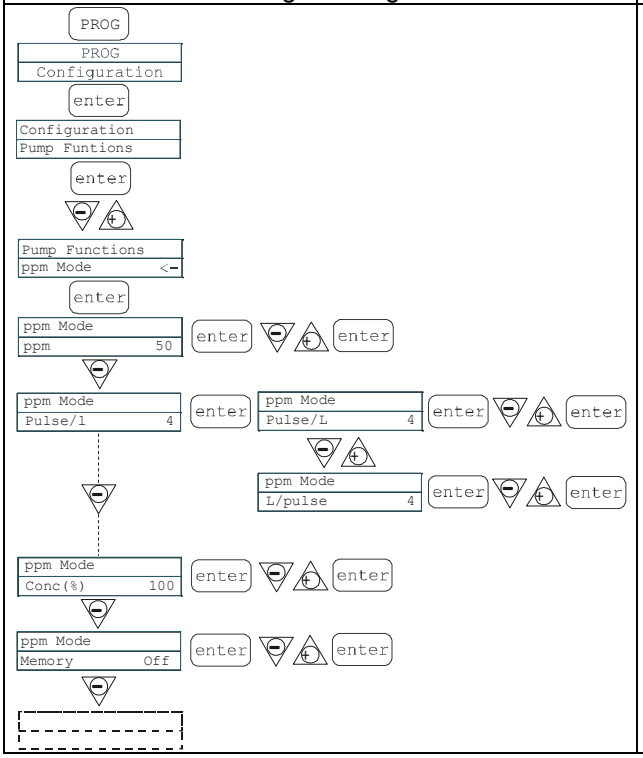
Display during Operation	Display during Setting (MODE key)
	

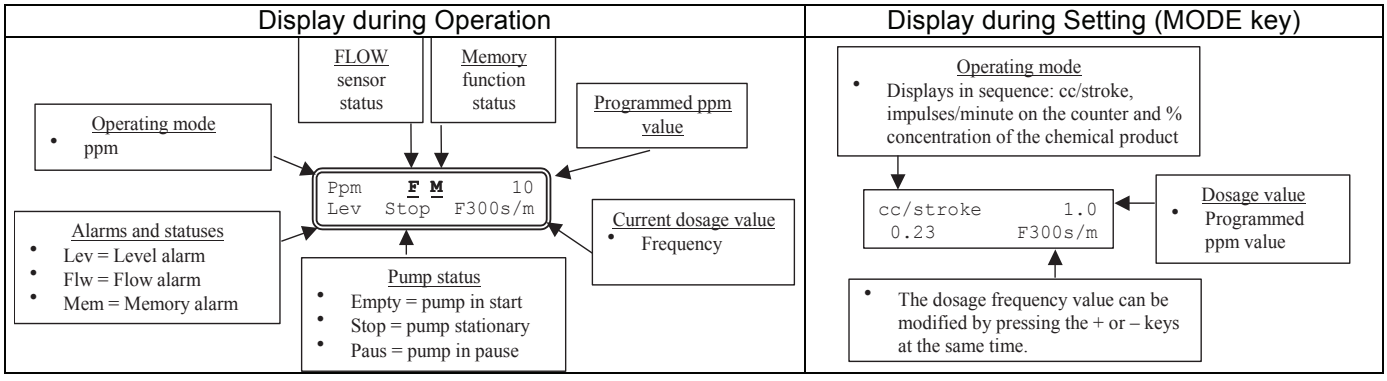
Paragraph 6 – Proportional to External Impulses (batch dosage)

Programming	Operation
	The pump doses in proportion to an external signal (i.e.: impulse launch counter). In this case, it is possible to set the quantity to be dosed in ml and the time within which to complete dosage. Dosage can be started manually by pressing the + key, or by using a remote control. The mode enter key interrupts dosage, which can be reset by pressing the + key, or started again by pressing the mode enter key again. The quantity to be dosed can be modified during operation, by pressing the mode enter + keys at the same time to increase the flow, or the mode enter – keys to decrease i.

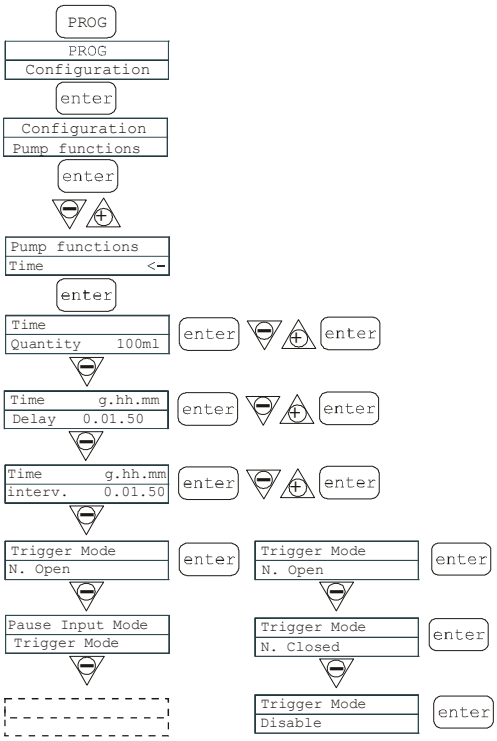
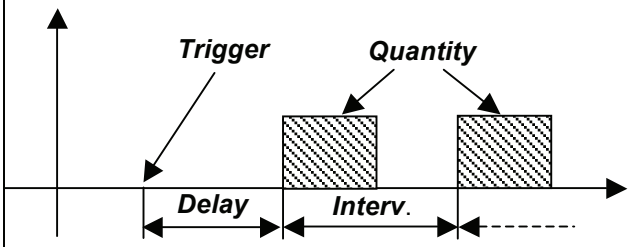
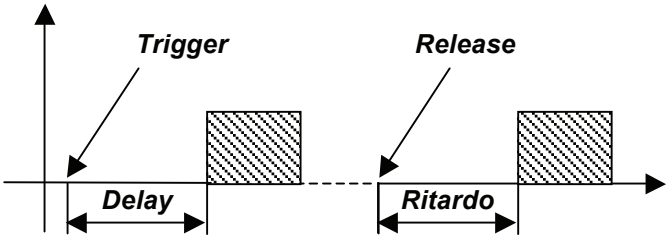


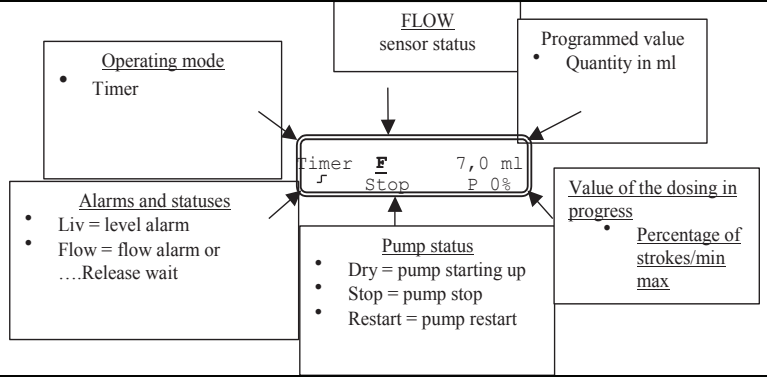
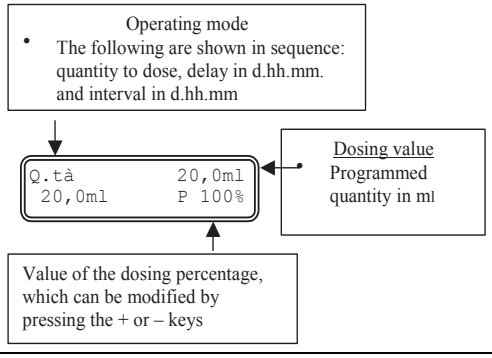
Paragraph 7 – Proportional to External Impulses (ppm dosage)

Programming	Operation
	The pump doses in proportion to an external signal (i.e.: impulse launch counter), automatically calculating the relationship between incoming signals and pump strokes on the basis of the programmed ppm value. The data to be entered is the ppm value, the impulse/litre ratio (or litre/impulse) of the counter and the concentration of the product to be dosed. The dosage frequency can be modified during operation, by pressing the mode enter + keys at the same time to increase the flow, or the mode enter – keys to decrease it.

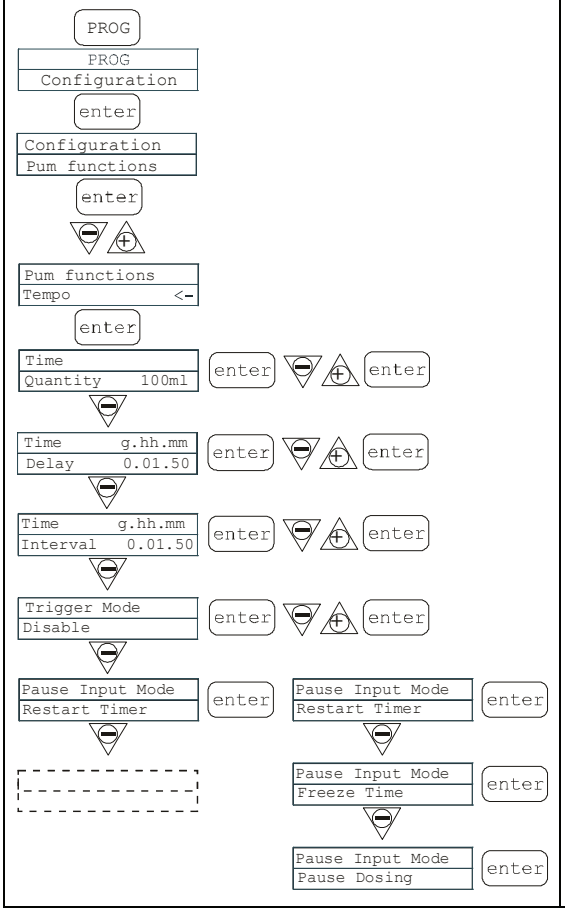
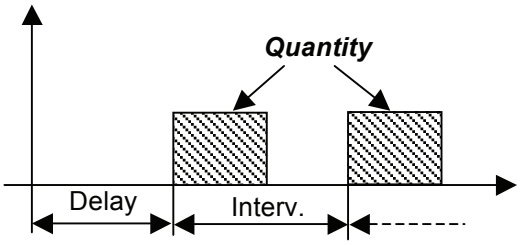


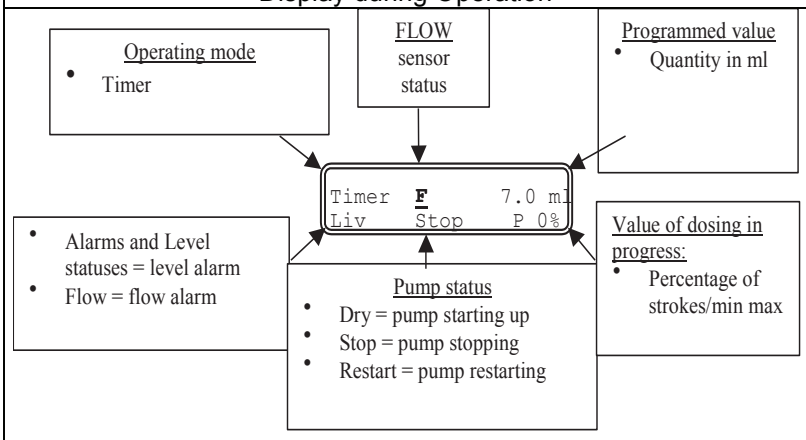
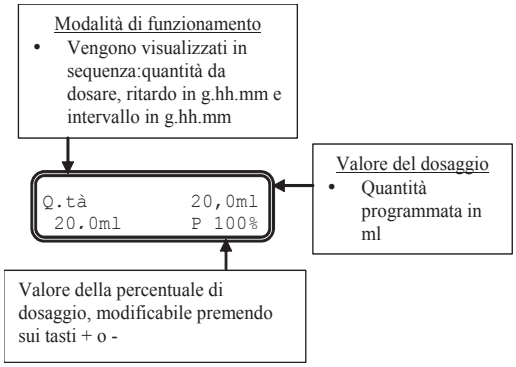
Paragraph 8 – Timed Dosage **(Frequency signal input "TRIGGER" activated)**

Programming	Operation
	After receipt of the ***TRIGGER*** signal set, the pump doses a quantity that can be programmed in ml. It is possible to set a delay time before the dosing (***Delay***) and the interval between subsequent dosings (**Interv.**) as illustrated in the diagram:  By setting for example an ***Interval***. time = 0, a system is obtained in which the programmed quantity is dosed after each ***TRIGGER*** signal (with any delay that has been set):  It is possible to start the dosing by pressing the + key, which, in practice, simulates the ***Trigger*** signal. The ***Trigger*** signal can be set to ***N. Open*** (it is activated when the input passes from the open to the closed mode) or to ***N. Closed*** (it is activated when the input passes from the closed to the open mode). The ***Trigger*** signal is locked during dosing (its receipt is neither stored nor managed). The ***Pause*** (***Remote input***) input cannot be programmed and its activation stops the dosing, while its further deactivation makes the system wait again for the ***Trigger*** signal for a new dosing. The dosage frequency can be modified while the pump is operating, by pressing the mode enter + keys at the same time to increase the frequency, or the mode enter − keys to decrease it.

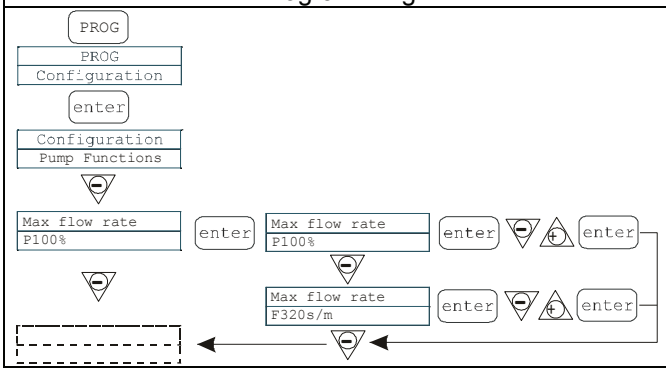
Display during Operation	Display during Setting (MODE key)
	

Paragraph 8 – Timed Dosage **(Frequency signal input "TRIGGER" not activated)**

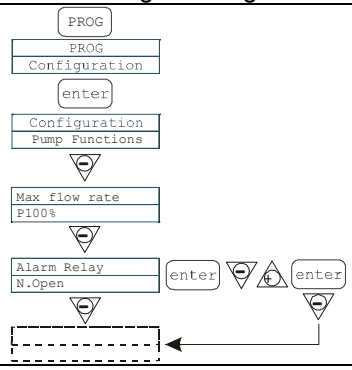
Programming	Operation
	The pump doses a programmed quantity in ml. It is possible to set a pump delay time (***Delay***) when the pump is started and an interval between two successive dosings (***Interval***), as illustrated in the diagram:  The ***Delay*** and ***Interval*** times are in dd.hh.mm (days, hours, minutes) The ***Pause*** input can be programmed in three different modes: 1. ***FreezeTime:*** when the pause is activated, the system cuts out the current time count and restarts it when the pause is deactivated. 2. ***Pause Dosing:*** with the pause activated, the system continues to count time the and stops the dosing. 3. ***Restart Timer***: when the pause is activated, the system stops the dosing and when the pause is deactivated the count starts again from the beginning. The dosage frequency can be modified while the pump is operating, by pressing the mode enter + keys at the same time to increase the frequency, or the mode enter − keys to decrease it.

Display during Operation	Display at start-up (MODE key)
	

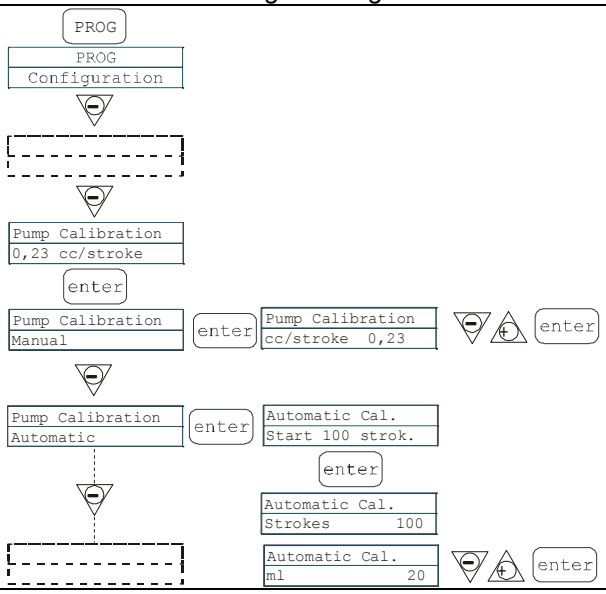
Paragraph 9 – Setting the Maximum Flow

Programming	Operation
	This makes it possible to set the maximum flow offered by the pump, and the programmed mode (% or frequency) is used as the standard unit of measurement when displaying the flow. Changes can be made by pressing the mode enter key, then using the + − keys to set the new value. Press mode enter to confirm and return to the main menu

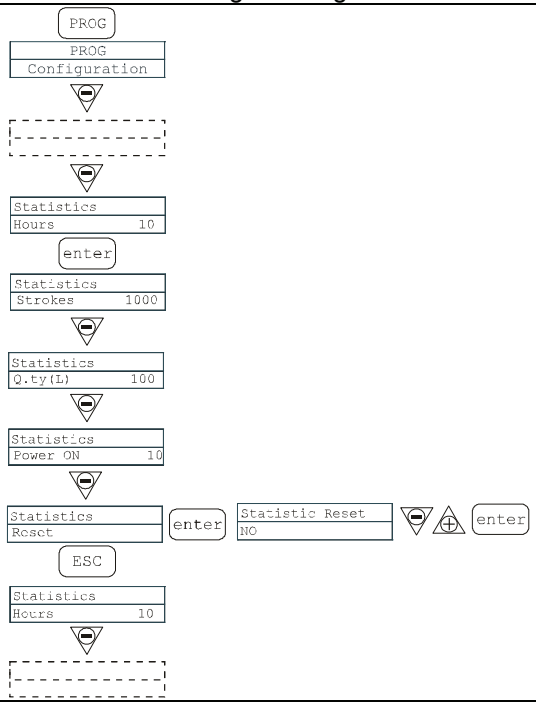
Paragraph 10 – Setting the Alarm Relay

Programming	Operation
	In the absence of an alarm situation, it can be set as open (default) or closed. Changes can be made by pressing the mode enter key, then using the keys to set the new value. Press mode enter to confirm and return to the main menu

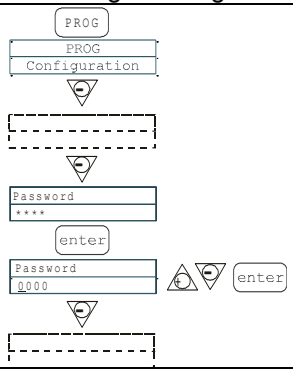
Paragraph 11 – Flow Calibration

Programming	Operation
	The memorized cc value per strike appears in the main menu. It can be calibrated in two different ways: MANUAL – manually enter the cc value per strike using the keys and confirm by pressing the mode enter key AUTOMATIC – the pump makes 100 strikes, which are started by pressing the mode enter key. At the end of this process, enter the quantity sucked up by the pump using the keys and confirm by pressing the mode enter key. The entered figure will be used in flow calculations.

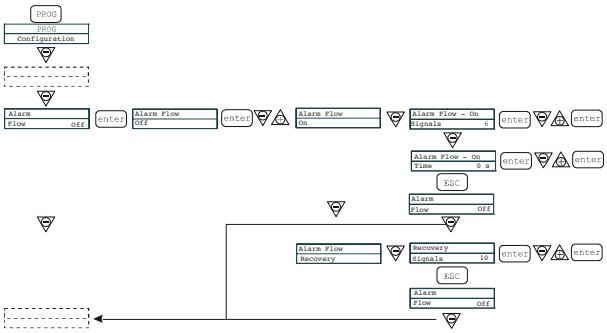
Paragraph 12 - Statistics

Programming	Operation
	The main menu displays the pump operation times. By pressing the mode enter key you can access other statistics: - Strokes = number of strokes made by the pump - Q.ty (L) = quantity dosed by the pump in litres; this figure is calculated on the basis of the memorised cc/stroke value - Power = number of pump starts - Reset = use the to reset the counters (YES) or otherwise (NO), then confirm by pressing the mode enter key. Pressing the ESC key will take you back to the main menu.

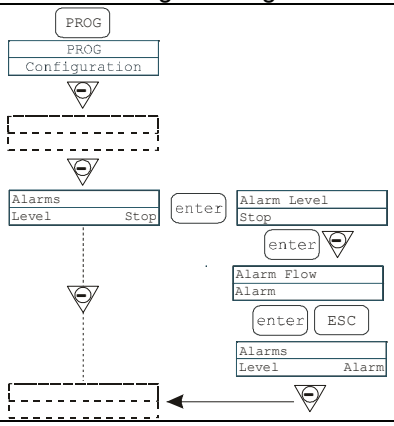
Paragraph 13 – Password

Programming	Operation
	By entering the password, you can enter the programming menu and see all the set values. The password will be requested whenever you seek to modify them. The flashing line indicates the number than can be modified. Use the ⊕ key to select the number (from 1 to 9), and the ⊖ key to select the number to be modified. Confirm by pressing the mode enter key. By setting “0000” (default), the password is eliminated.

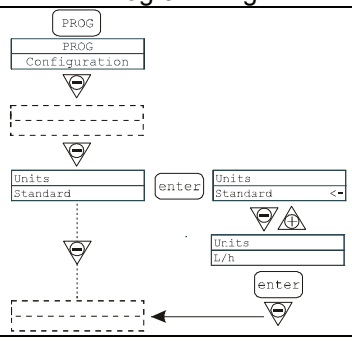
Paragraph 14 – Flow Alarm

Programming	Operation
	This makes it possible to activate (deactivate) the flow sensor. Once activated (On), press ⊖ to access the request for the number of signals the pump waits before entering alarm mode (Setting Time = 0 s in the next menu) or priming mode (Setting a Time other than 0 s in the next menu). When mode enter is pressed, the number flashes. Use ⊕ ⊖ to set the value. Press mode enter to confirm. Press ESC to go back to the main menu. In the Time menu, you can set the time for which the pump, not having received the flow signal for the set number of signals, enters priming mode before entering alarm mode. If, during the priming time, the pump receives the flow signal again, it will return to normal operation. If time = 0 s, after the number of signals set, the pump will enter alarm mode immediately, without performing priming. To edit and set the time: when mode enter is pressed, the number flashes. Then press ⊕ ⊖ to set the value. Press mode enter to confirm. Press ESC to go back to the main menu. Batch mode can only be enabled in Recovery mode. The pump repeats the number of strokes that were not detected by the flow sensor. Press the ⊖ button to request the maximum number of signals that the pump can recover before going into an alarm state. Pressing mode enter will cause the number to flash. At this point the user can use the ⊕ and ⊖ buttons to set the desired value. Press the mode enter button to confirm. Press ESC to return to the main menu.

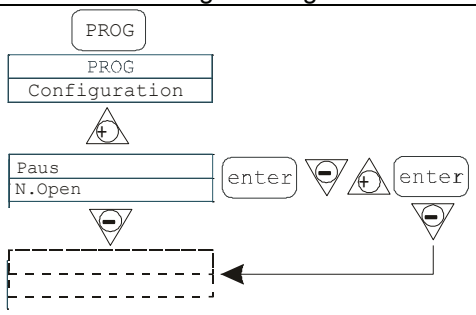
Paragraph 15 – Level Alarm

Programming	Operation
	This makes it possible to set the pump when the level sensor alarm is activated. In other words you can decide whether to stop dosage (Stop) or simply activate the alarm signal without stopping dosage. Changes can be made by pressing the mode enter key, then using the + − keys to set the alarm type. Confirm by pressing the mode enter key. Press ESC to return to the main menu

Paragraph 16 – Flow Display Unit

Programming	Operation
	This makes it possible to set the dosage unit of measurement on the display. Changes can be made by pressing the mode enter key, then using the + − keys to set the unit of measurement, choosing between L/h (liters/hour), Gph (Gallons/hour), ml/m (milliliters/minute) or standard (% or frequency, depending on settings). Press mode enter to confirm and return to the main menu

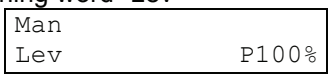
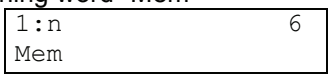
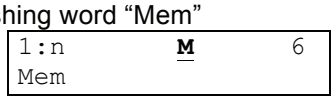
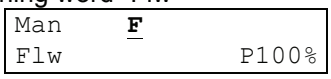
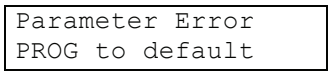
Paragraph 17 - Setting the Pause

Programming	Operation
	The pump can be paused by remote input. The factory setting is Normally Open. Changes can be made by pressing the mode enter key, then using the + − keys to set the new value (N. OPEN or N. CLOSED). Press mode enter to confirm and return to the main menu.

Display contrast adjustment.

For adjusting the display contrast keep the key ESC pressed and within 5 seconds press the keys + or − to increase or decrease the contrast.

Alarms

Display	Cause	Interruption
Fixed alarm LED Flashing word “Lev” I.e. 	End of level alarm, without interrupting pump operation	Restore the liquid level.
Fixed alarm LED Flashing words “Lev” and “stop” I.e. 	End of level alarm, with interruption to pump operation	Restore the liquid level.
Flashing word “Mem” I.e. 	The pump receives one or more pulses during dosage with memory function on Off	Press the  key
Flashing word “Mem” I.e. 	The pump receives one or more pulses during dosage with memory function on On	When the pump finishes receiving external impulses, it returns the memorized strokes
Fixed alarm LED Flashing word “Flw” I.e. 	Active flow alarm. The pump has not received the programmed number of signals from the flow sensor.	Press the  key
I.e. 	Internal CPU communication error.	Press the  key to restore the default parameters.