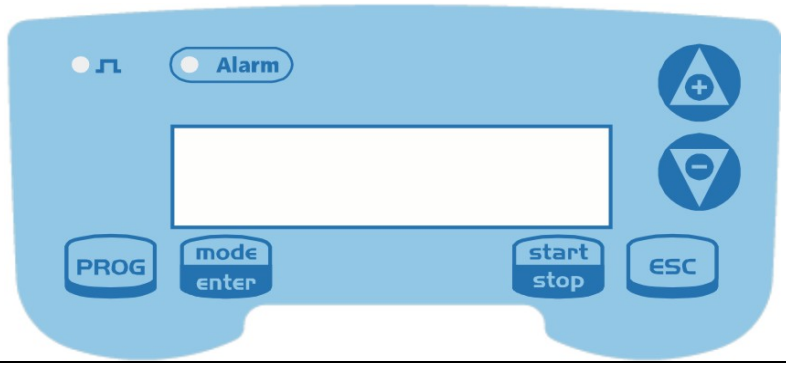
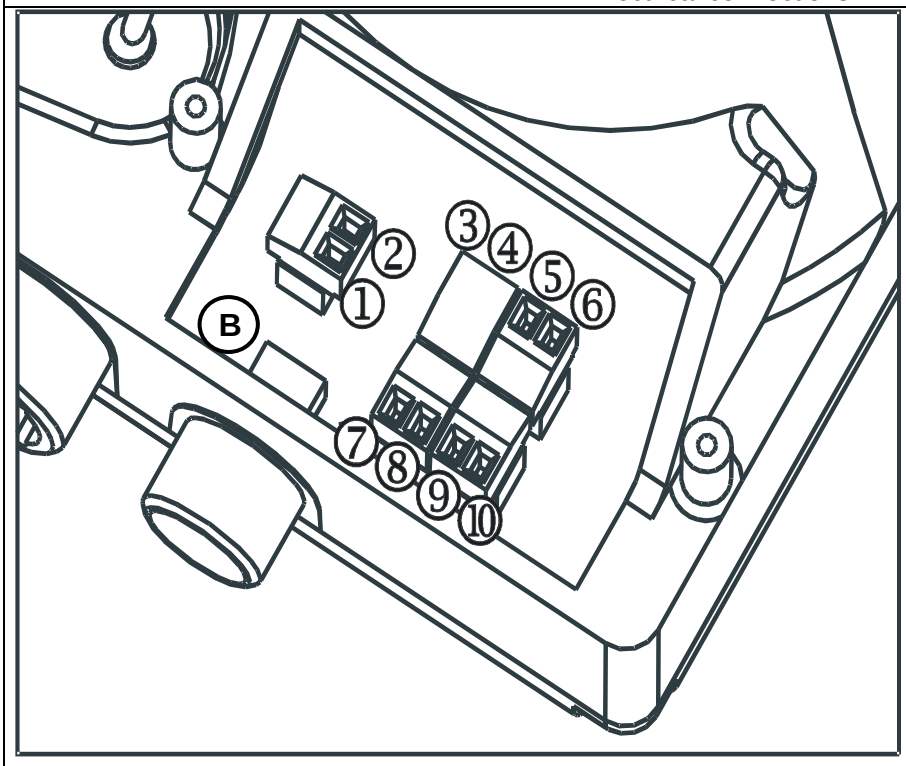
Control Panel – TEKNA TCK



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 as the keys, it increases or lowers 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 2	Output relay
3 4	Not connected
5 6	-Remote control input (start-stop) -Pause signal input
7 8	Trigger signal input
9 10	Flow sensor input
B	Input level control

Programmiermenü Tekna TCK

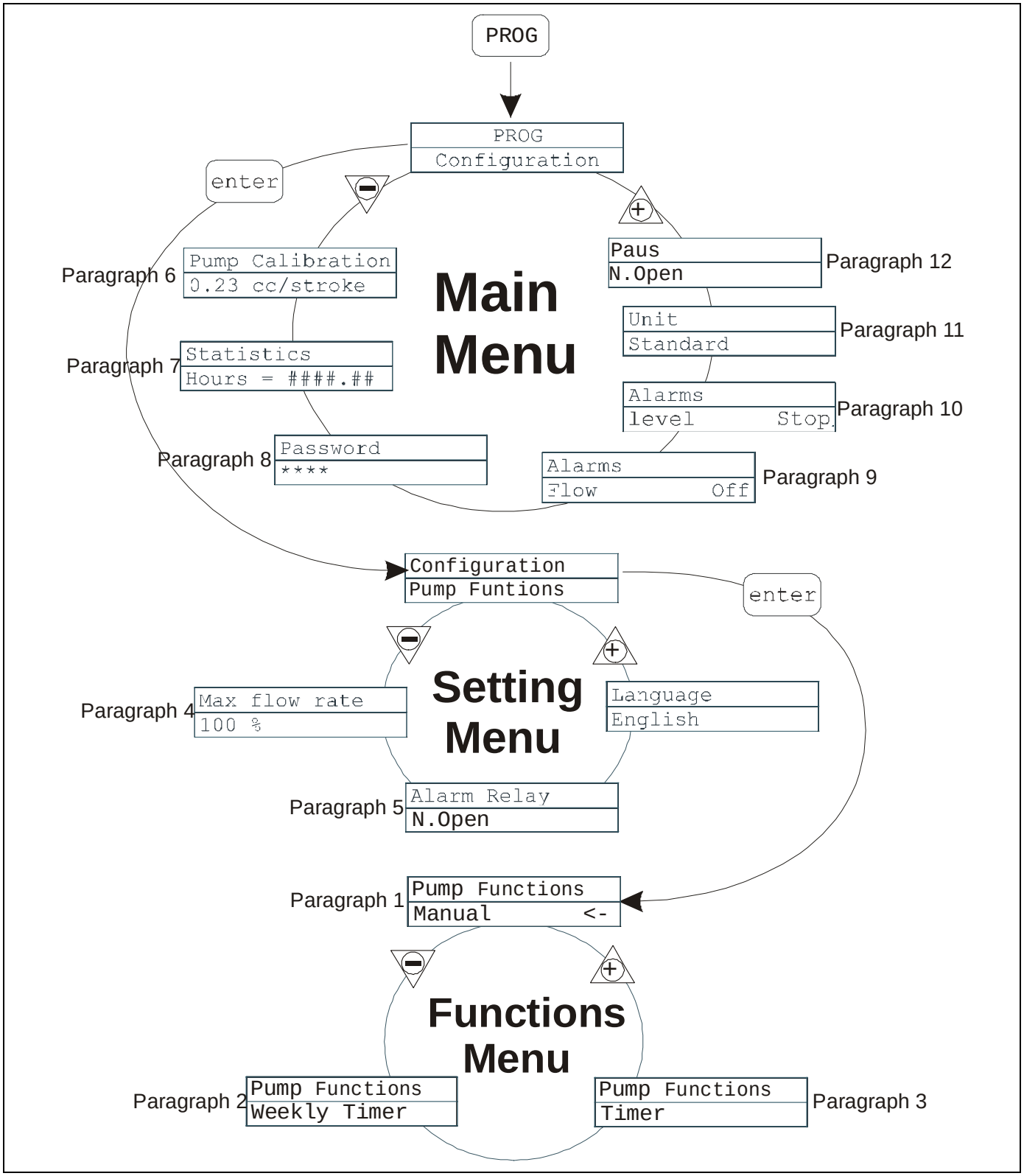
You can access the programming menu by pressing the PROG key for over three seconds. The keys can be used to run through the menu items, with the mode enter key being used to access changes.
The pump is programmed in constant mode in the factory. The pump automatically returns to the operating mode after 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
No Save

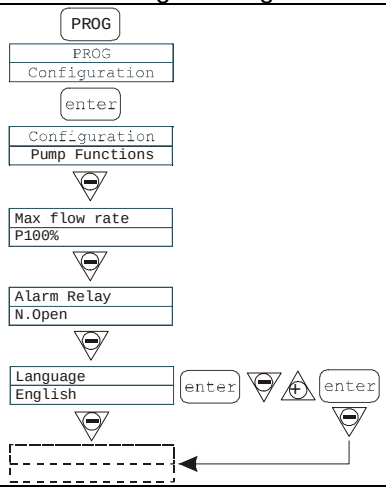
∇ Δ

Exit
Save

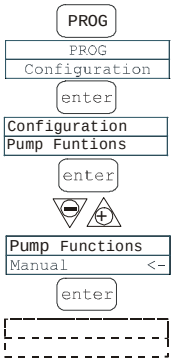
mode enter to confirm the selection

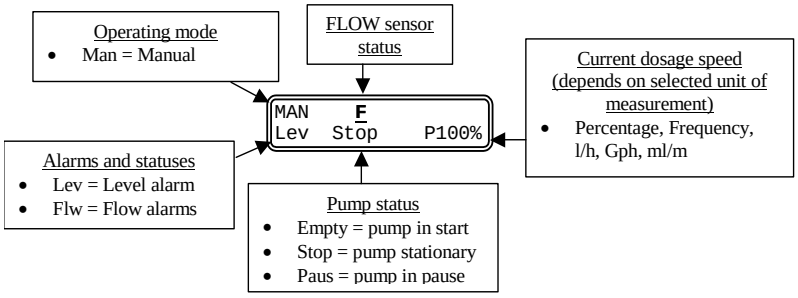
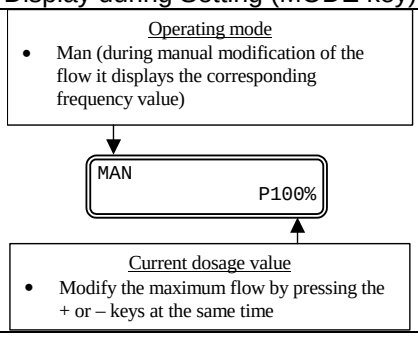


Setting the Language

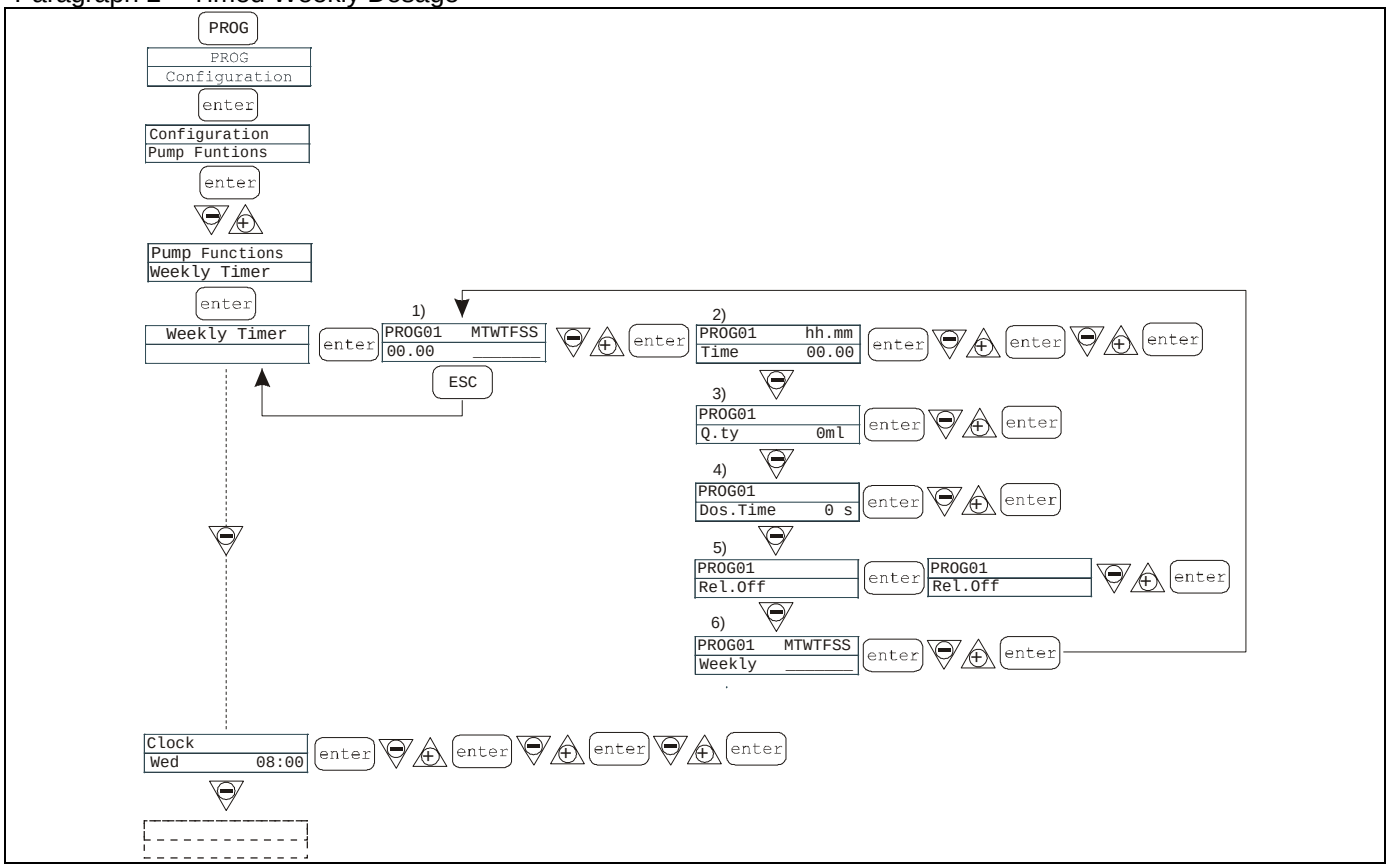
Programming	Operation
	Makes it possible to select the language. The pump is set in English in the factory. Changes can be made by pressing the mode enter key, then using the keys to set the new value. Press mode enter to confirm and return to the main menu

Paragraph 1 – Manual Dosage

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

Display during Operation	Display during Setting (MODE key)
	

Paragraph 2 – Timed Weekly Dosage



It is possible to programme 10 dosages for the whole week. Press mode enter in the “weekly timer” mode in order to programme the dosages.

1) The programme number can be modified using the keys and confirmed by pressing the mode enter key.

2) The dosage time can be modified using the keys and confirmed by pressing the mode enter key.

3) The dosage quantity can be set in “ml” using the keys and confirmed by pressing the mode enter key

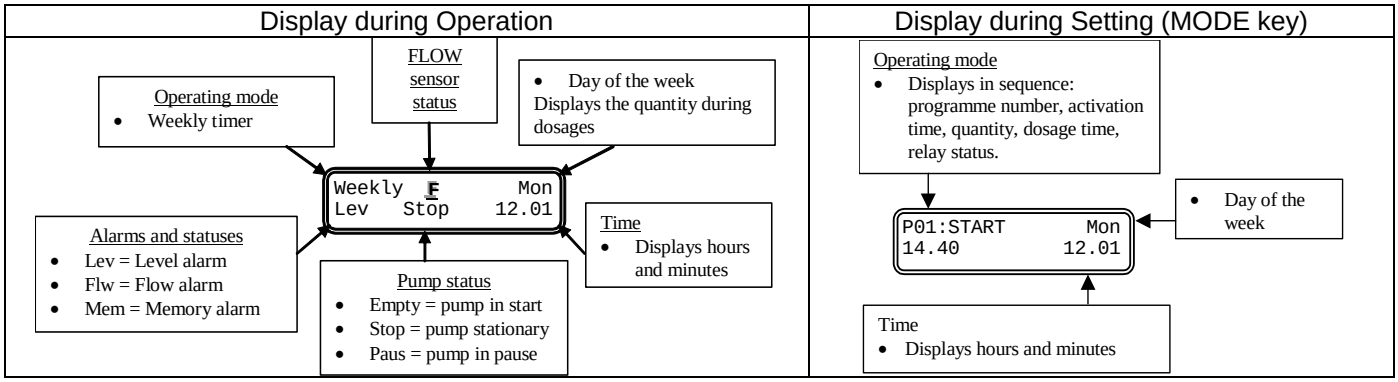
4) The dosage time, that is to say the time (in seconds) during which you wish to dose the set quantity, can be set in “cc” using the keys and confirmed by pressing the mode enter key

5) The values of the relay connected to dosage can be modified using the keys and confirmed by pressing the mode enter key; in “Off” mode, the relay is not switched off (open), and in “after” mode the relay closes when dosage is activated and remains closed once dosage is completed for the time (in seconds) set using the keys and then confirmed by pressing the mode enter key. In “before” mode, the relay closes before the dosage activation time, for the time (in seconds) set using the keys and then confirmed by pressing the mode enter key.

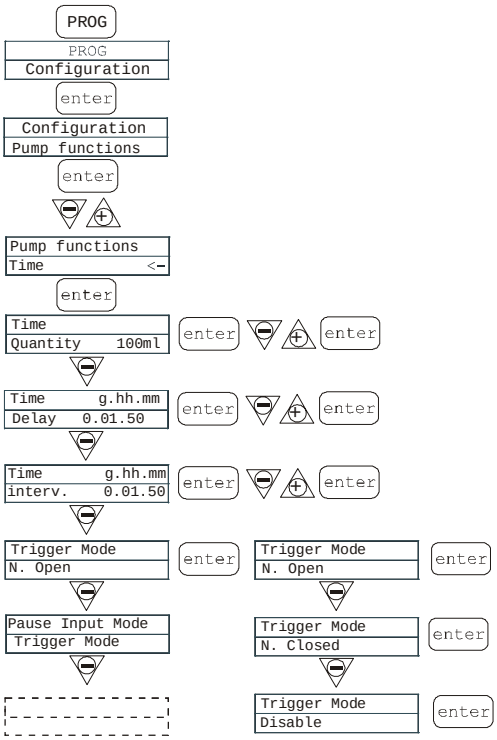
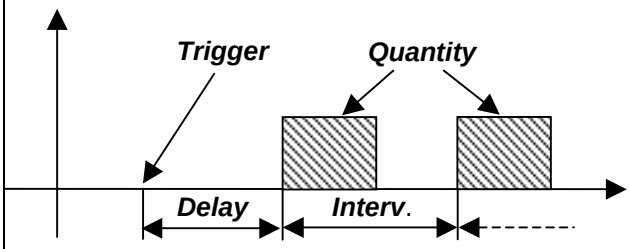
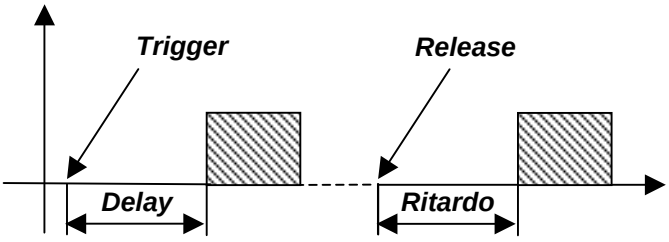
6) Day activation, or rather the days on which you want the set programme to be active (start time, quantity, dosage duration and relay operating mode). Press the mode enter key to make changes, then press the key to activate/deactivate dosage and the key to change the day of the week. Press mode enter to confirm and move automatically to the next programme.

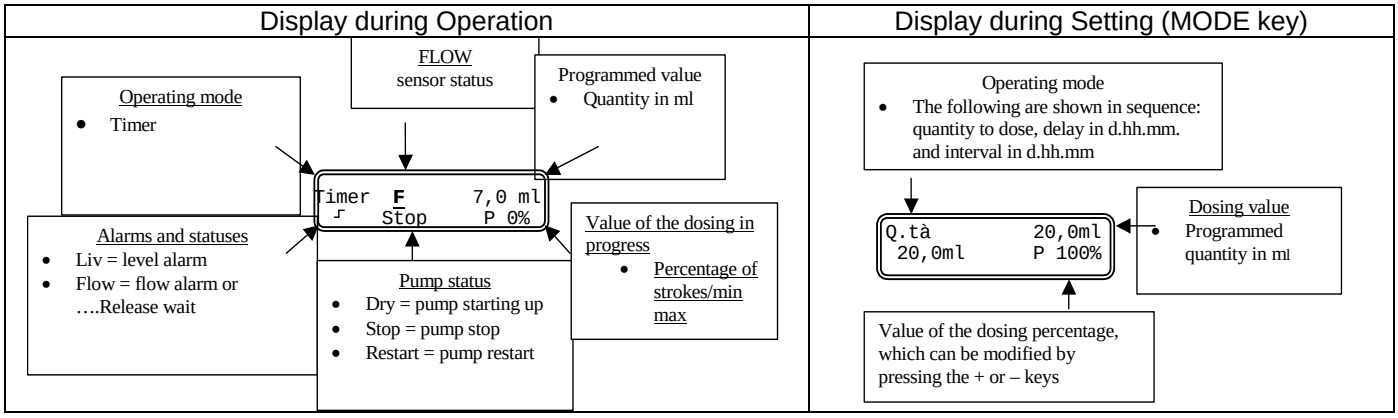
Repeat the whole procedure if you need to programme the new programme, or press ESC to return to the main menu.

The next step in the main menu is programming the clock. This can be done by pressing the mode enter to make changes, using the to set the required values and then confirming by pressing the mode enter key. You can set the day, hour and minutes in sequence. Obviously, the set time and day are those that the programming will refer to.



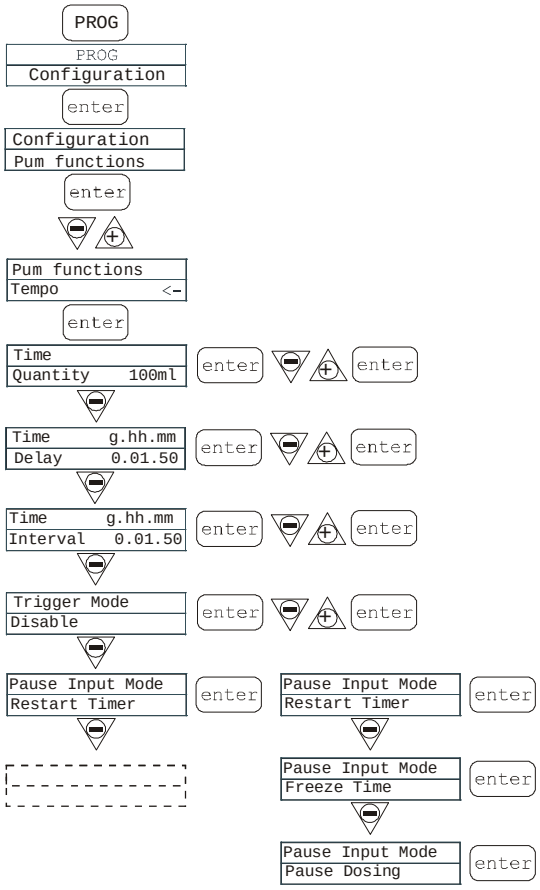
Paragraph 3 – Timed Dosage ***(*Frequency signal input "TRIGGER" activated)**

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  keys at the same time to increase the frequency, or the  keys to decrease it.



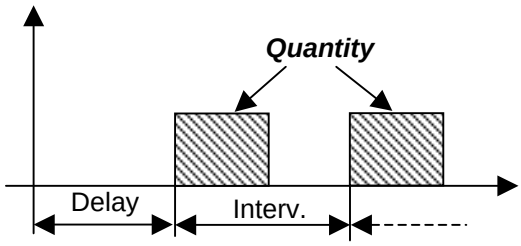
Paragraph 3 – Timed Dosage **(Frequency signal input "TRIGGER" not activated)**

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:

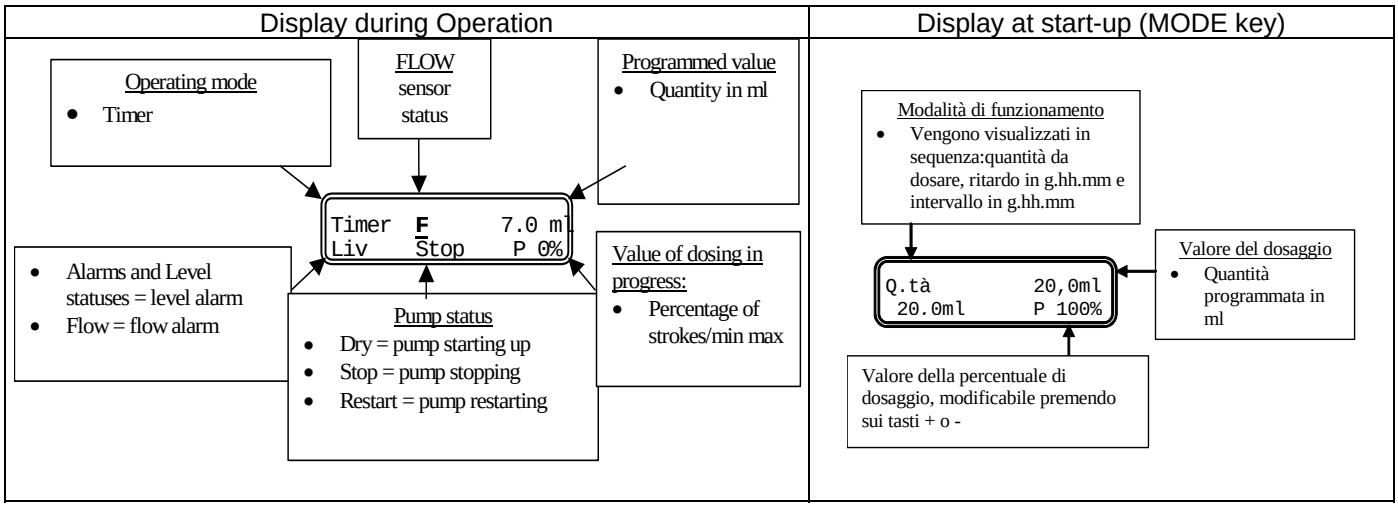


The ***Delay*** and ***Interval*** times are in dd.hh.mm (days, hours, minutes)

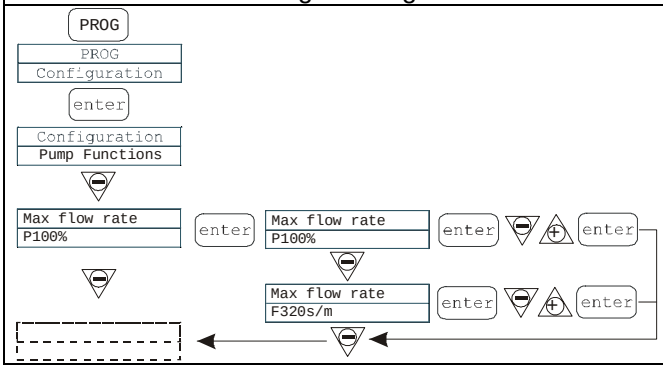
The ***Pause*** input can be programmed in three different modes:

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.

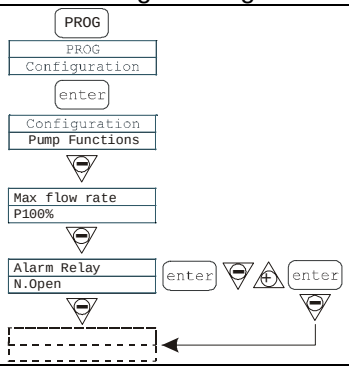
Durante la fase di funzionamento della pompa, è possibile modificare la frequenza di dosaggio premendo contemporaneamente i tasti mode enter + per aumentare la frequenza oppure i tasti mode enter + per diminuirla.



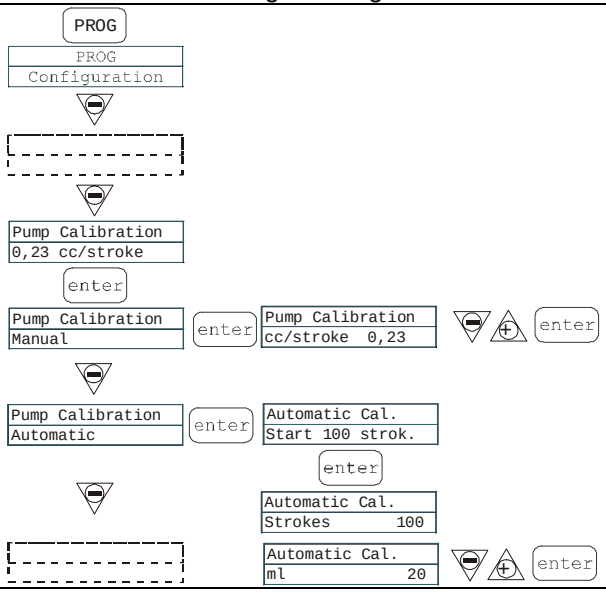
Paragraph 4 – Setting the Maximum Flow

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

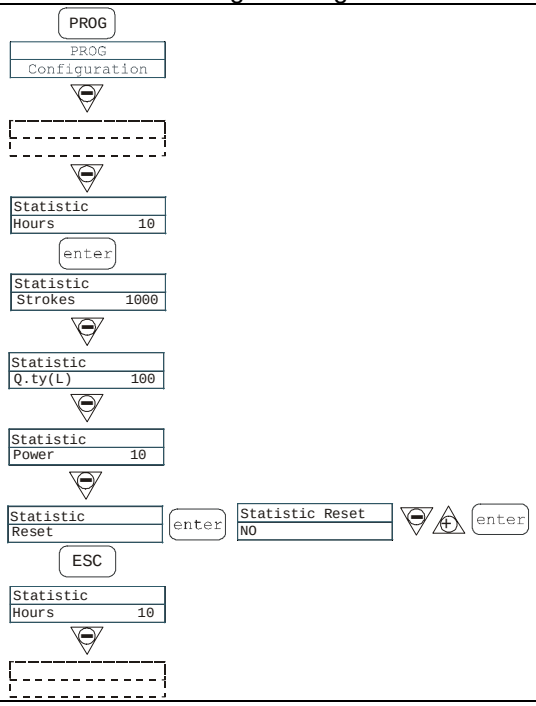
Paragraph 5 – Setting the Alarm Relay

Programming	Operation
	This is used to set the alarm relay in the absence of an alarm situation, if 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

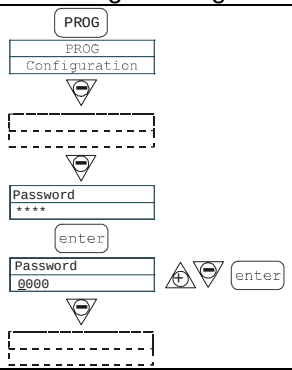
Paragraph 6 – Flow rate Calibration

Programming	Operation
	The memorised 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.

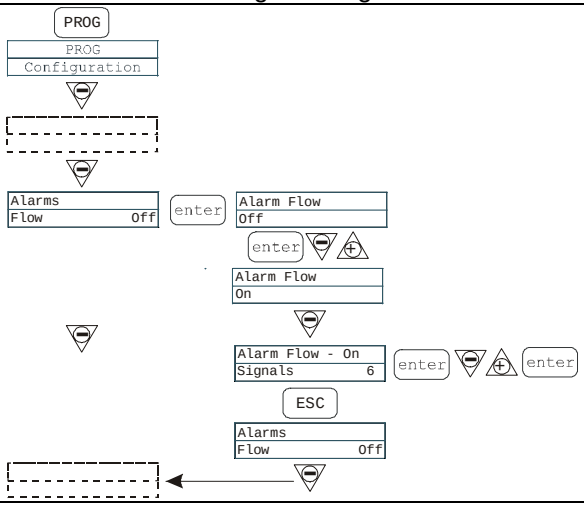
Paragraph 7 - Statistics

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.

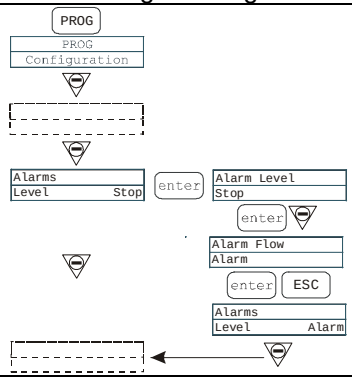
Paragraph 8 – Password

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.

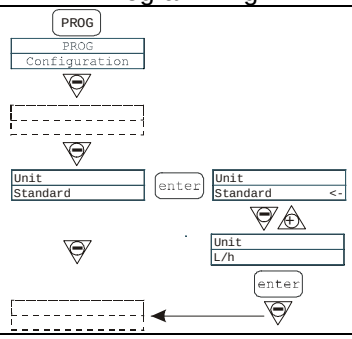
Paragraph 9 – Flow Alarm

Programming	Operation
	This makes it possible to activate (deactivate) the flow sensor. When activated (On), press the ▼ key to access the request for the number of signals that the pump waits for before an alarm is triggered. The number flashes when you press the mode enter key, and you can then use the ▲ ▼ keys to set the value. Confirm by pressing the mode enter key. Press ESC to return to the main menu

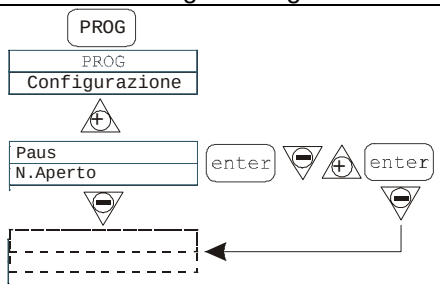
Paragraph 10 – Level Alarm

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 11 – Flow Display Unit

Programming	Operation
	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 (litres/hour), Gph (Gallons/hour), ml/m (millilitres/minute) or standard (% or frequency, depending on settings). Press mode enter to confirm and return to the main menu

Paragraph 12 – 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. `Man` `Lev P100%`	End of level alarm, without interrupting pump operation	Restore the liquid level.
Fixed alarm LED Flashing words “Lev” and “stop” I.e. `Man` `Lev Stop P100%`	End of level alarm, with interruption to pump operation	Restore the liquid level.
Fixed alarm LED Flashing word “Flw” I.e. `Man F` `Flw P100%`	Active flow alarm. The pump has not received the programmed number of signals from the flow sensor.	Press the start stop key
I.e. `Parameter Error` `PROG to default`	Internal CPU communication error.	Press the PROG key to restore the default parameters.