SENSOR SETTINGS

1. Software Parameters

The IRC-Setup Software allows you to set the variables of the infrared sensors made by ALCAPLAST.

You will need the proper USB cable to connect to your computer and a sensor power supply (6 – 12 V DC). Connect the sensor being set to the power supply and the USB cable to your computer with our software. When a production version "C" sensor is correctly connected, you will see a rapidly flashing red LED on the sensor. There is no indicator for the version "B" sensor.

Warning!

The USB OTG cable should NEVER be used to connect to the sensor. This cable switches the sensor to the service mode and the sensor may be destroyed. The warranty does not cover a sensor damaged in this way.

2. Software Variables

Our Software allows you to:

• Set sensor time constants

• Set valve control parameters

• Enable automatic functions

• Monitor total flush count after any given date

• Test the valve *

3. Setting the Variables

3.1 First Screen

The first screen you will see requires a password that ultimately defines your access level within the software.

Only for production version "C" sensors

The "Without Password" option disables some controls.

This level of access is for Basic use of the software. If you enter a password, the system will enable access to most settings (only OEM options will remain disabled). The first time the software is used you will need the "Temporary" password provided by the dealer you purchased the software from. This is part of our security routine.
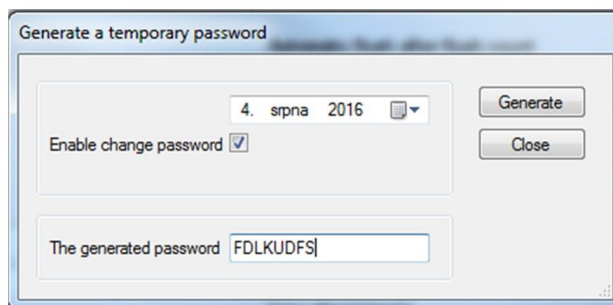
3.2 Temporary Password

A temporary password is generated by the dealer, it is only valid for a given day and can be one of two types:

- *Temporary password without the ability to change the password* – using this password, you can log in for one day and access all the available settings.
- *Temporary password with the ability to change the password -* after you have logged in using this password, you can set your own password and perform all the available settings for an unlimited period of time.

3.2.1 Temporary Password Generation

The authorized user can generate a temporary password using the "Temporary Password" option in the menu "File". Once selected a password generation window open.

Enter the appropriate date that applies to the password. An option enables whether or not you will be allowed to change the password. Now click "Generate" and the temporary password is shown.

3.2.2 Password Change

This function is only available to users who have purchased it from the dealer. You must have the proper temporary password to enable this function. Users who have previously set their password can also access this option. Select "Password Change" in the menu "File" to access.
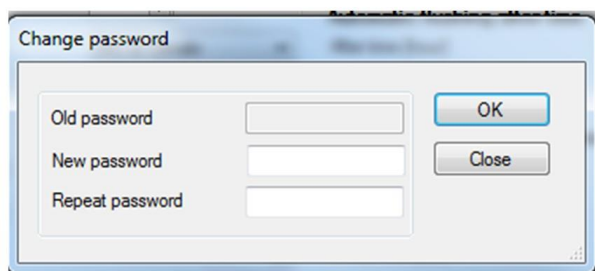
If you want to change an existing password, enter your old password and then the new password two times. Minimum password length is six characters.

New temporary password holders with the right to change the password cannot edit the "Old Password" is disabled. If you forget the password, you must ask a responsible person for a new temporary password.

3.3 Language Selection

The software allows you to choose your language. Currently you can select one of the following languages using the "Language" option:

• Czech
• English
• German
• Russian
• Italian
• French
• Hungarian

Our software remembers your language selection and will start up with it each time. The default language after installation is Czech.

3.4 Sensor Data Reading

3.4.1 Production Version "B"

The first thing you must do is sensor data reading. This enables you to perform the sensor setting.

- Connect the sensor to a 6-12 V DC power supply, or a 6 V battery pack.
- Using an appropriate USB cable, connect the sensor to the computer where the SW control is installed. A rubber protector covers the cable end and should be replaced after use. Wait approximately 10 seconds to allow the operating system to download a corresponding driver.
- Click the menu "Read" to see a list of connected sensor.
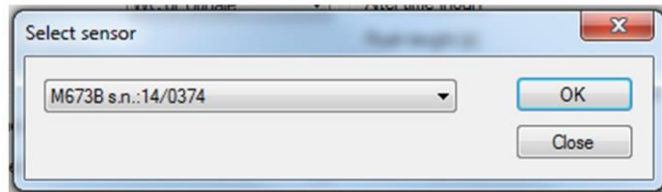
- In the pull-down menu you can select which sensor you want to work with.
- Activate (e.g. by hand) the sensor so that a red LED on the sensor comes on indicating registration of a person. Keep the sensor in the active mode.
- Push the button "OK" to start reading the data. The system will show a message informing you of the results. You can deactivate the sensor (remove your hand). After reading has been finished, the data is updated on the main screen

3.4.2 Production Version "C"

The first thing you must do is sensor data reading. This enables you to perform the sensor setting.

- Connect the sensor to a 6-12 V DC power supply, or a 6 V battery pack.
- Using an appropriate USB cable, connect the sensor to the computer where the SW control is installed. A rubber protector covers the cable end and should be replaced after use. Wait approximately 10 seconds to allow the operating system to download a corresponding driver.
- If the sensor is properly connected to the computer, the red LED on the sensor starts flashing, indicating the computer and sensor are communicating properly.
- Click the menu "Read" to see a list of connected sensor.
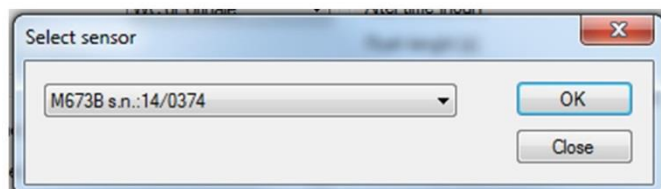
- In the pull-down menu you can select which sensor you want to work with.
- Push the button "OK" to start reading the data. The system will show a message informing you of the results. You can deactivate the sensor (remove your hand). After reading has been finished, the data is updated on the main screen.

3.5 Setting and Description of Parameters

3.5.1 Main Window

The majority of the parameters can be set in the main window which is divided into several sections.
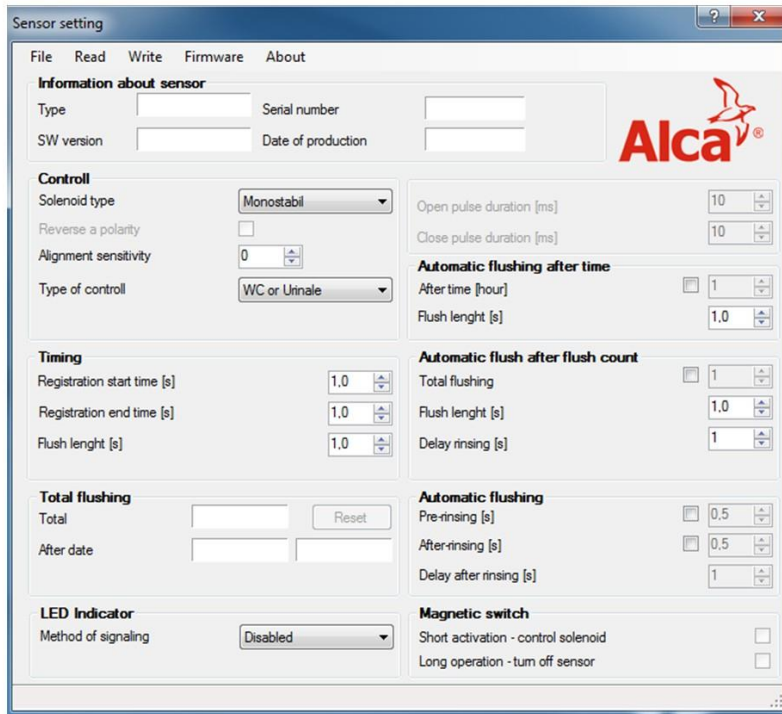
3.5.1.1 Section "Information about Sensor"

This section contains information that cannot be changed. This information was entered during the sensor production. It concerns the sensor type, SW version, date of production and a unique serial number.

3.5.1.2 Section "Control"

Basic sensor functions and their values can be set here.

- **Solenoid type** – Based on the solenoid valve you have used.
  - o Bistable – This is the solenoid valve intended for the battery mode controlled by two short pulses with a different polarity.
  - o Monostable – This is the solenoid valve that must be permanently powered when opened. It is normally used when powered from the network.
- **Reverse a polarity** – This option is only enabled during bistable control. Use if the valve closes instead of opening and vice versa, check this box to correct this issue.
- **Align sensitivity** – This function is no longer used starting with the production version "B". This function allowed the decrease or increase of sensitivity on older sensors.
- **Type of control** – The basic sensor function is set here.
  - o WC or Urinal – The length of the valve flushes is based on a pre-set length with the delay defined, pre-rinsing and after-rinsing are used when appropriate.
  - o Battery – The valve opens supplying water at the moment of sensor activation and closes to stop supplying water after the sensor activation has ended.

- **Valve test (only for production version "C" sensors)** – Click an appropriate button to start or stop supplying water.

3.5.1.3 Section "Timing"

- **Registration start time –** The amount of time the sensor has to register a person before starting a pre-rinsing (if enabled) and subsequently continue to a controlled flush.
- **Registration end time –** The time after the person registration ends that has to elapse in order for the sensor to give a flush command. This is to mitigate short losses of a person registration e.g. due to a staggering "socially tired person".
- **Flush length –** Determines a flush length.

3.5.1.4 Section "Total flushing"

- **Total –** Shows the total number of flushes post sensor production.
- **After date –** Push the "**Reset**" button and the date is entered in the sensor. The sensor starts counting flushes after the given date in the second field. The number can be reset repeatedly.

3.5.1.5 Section "LED Indicator"

- **Method of signalling –** You can set the behaviour of LED here. You can select the following functions.
  - o **Permanently on** LED is permanently on for the person registration time (this function has the highest energy consumption).
  - o **One flash –** LED flashes once when a person is registered.
  - o **Disabled –** LED is never on.

3.5.1.6 Section "Automatic Flushing after time"

This controls the function that, if enabled, ensures an automatic flush if a set time elapses after the last flush.

- **After time -** Time in hours, after a lapse of time from the last flush, automatic flush is performed.
- **Flush length –** Automatic flush length.

3.5.1.7 Section "Automatic Flush after Flush Count"

If this function is enabled, the sensor adds one additional automatic flush when the number of flushes set has been reached.

- **The number of flushes –** determines after how many flushes the additional automatic flush shall be performed.
- **Flush length –** duration of the additional automatic flush
- **Flush delay –** time delay of the additional flush after the last common flush has been finished.

3.5.1.8 Section "Automatic Flushing"

This section allows you to define a short rinsing after registration of a person (e.g. urinal watering), or a small dose of water to finish flushing (in case that water is drained off from the siphon after flushing).

- **Pre-rinsing –** this function sets the duration of pre-rinsing. If the function is enabled, it follows the restarted start time in the Timing section.
- **After-rinsing –** this function sets the duration of after-rinsing, or the after flushing has been finished rinse.
- **After-rinsing delay –** the time that has to elapse after flushing in order for the after-rinsing to be begin.

3.5.1.9 Section "Magnetic Switch"

Some sensors are equipped with a magnet-controlled switch. Using this switch, you can control the solenoid valve or turn off the sensor.

- **Short activation - solenoid control** – if the magnet is applied for less than 10 seconds, the valve opens/closes.
- **Long activation - sensor turning off –** if the magnet is applied for more than 10 seconds, the sensor turns off. This state exists until interruption and subsequent recovery of power supply.

3.5.2 Service Menu

The service menu is only available for some sensor types and production versions. If you log in without the password, some options in the service menu may be disabled. The content of the service menu in the production version B is read and written together with all the data. The service menu in newer sensor production versions (C and higher) has to be read/saved in the edit windows by means of corresponding buttons.

3.5.2.1 Option "Sensor Turning Off Limit"

Setting of voltage the value switch. The sensor turns itself off (dead battery)

3.5.2.2 Option "Maximum distance"

Using this setting, you can correct the maximum distance of the sensor sensing.

3.5.2.3 Option "Inverse Sensing"

This option changes the sensing characteristic of the sensor when working by means of a reflector is used.

3.5.2.4 Option "Service Interval"

Set this value to determine whether or not the sensor should monitor the interval at which it is necessary to call for the service department. The entered value determines the number of flushes. After those flushes have been reached, the sensor will start flashing.

3.5.2.5 Option "Power Calibration"

This option sets power of transmitted IR radiation. A change of this value has an effect on energy consumption and if you set values in this option at "Maximum Distance". We recommend not changing this setting.

3.6 Data Downloading to Sensor

To enable this data set, it is necessary to download it to the sensor. To achieve downloading, click the option "Write Setting" in the pull-down menu "Write". In the window displayed, select a sensor to which you want to write the data and click the button "Write". In case of production version "B" sensors, it is necessary before writing to activate the sensor by hand in the same way as during data reading. In case of production version "C" sensors, activation is not performed (the connected sensor flashes – keeps on communicating).