SENSOR SETUP MANUAL

1. Characteristics of the program

Alca IR program is used for setting the parameters of infrared sensors M673D from ALCAPLAST. To set the sensor, it is necessary to have appropriate connecting USB (mini B) cable. If the testing of the valve is required, it is necessary to connect the sensor to a power source according to the type of valve used.

2. Program Options

You can use the program to do following actions:

- Set a time constant of the sensor
- Adjust the sensitivity of the sensor
- Activate the automatic functions
- Monitor the total number of splushes and from the defined date
- Test valve function (need to connect power supply)
- Set the parameters of the valve control

3. Work with the program

3.1 Installing drivers

Before you run the setup program, you must install the drivers. Installation is required to be done by activating the driver installer.exe (CDM.exe).
(https://www.alcaplast.cz/documents/alcabox/extras/sensor_software//CDM.exe).
The USB connector is protected by a cap that must be removed and after the work again given back. It is then possible to connect the sensor using the appropriate cable. After connecting the sensor system identifies a new hardware and loads the driver.

3.2 The first start of the program

After previous driver installation and connection of the sensor you can run the setup program AlcaIR.exe. When you first start the program, a dialog box appears displaying the license agreement. Using the program is a subject to the approval of the license agreement.
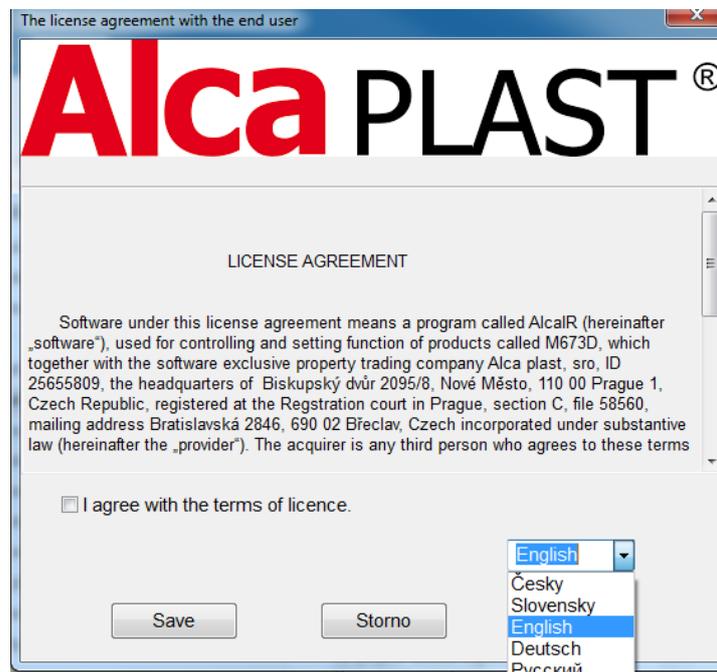

After approving the conditions it is possible to continue working with the program.

3.3 Sensor settings and parameter descriptions

The program automatically identifies the sensor and displays the connected sensor type and serial number.
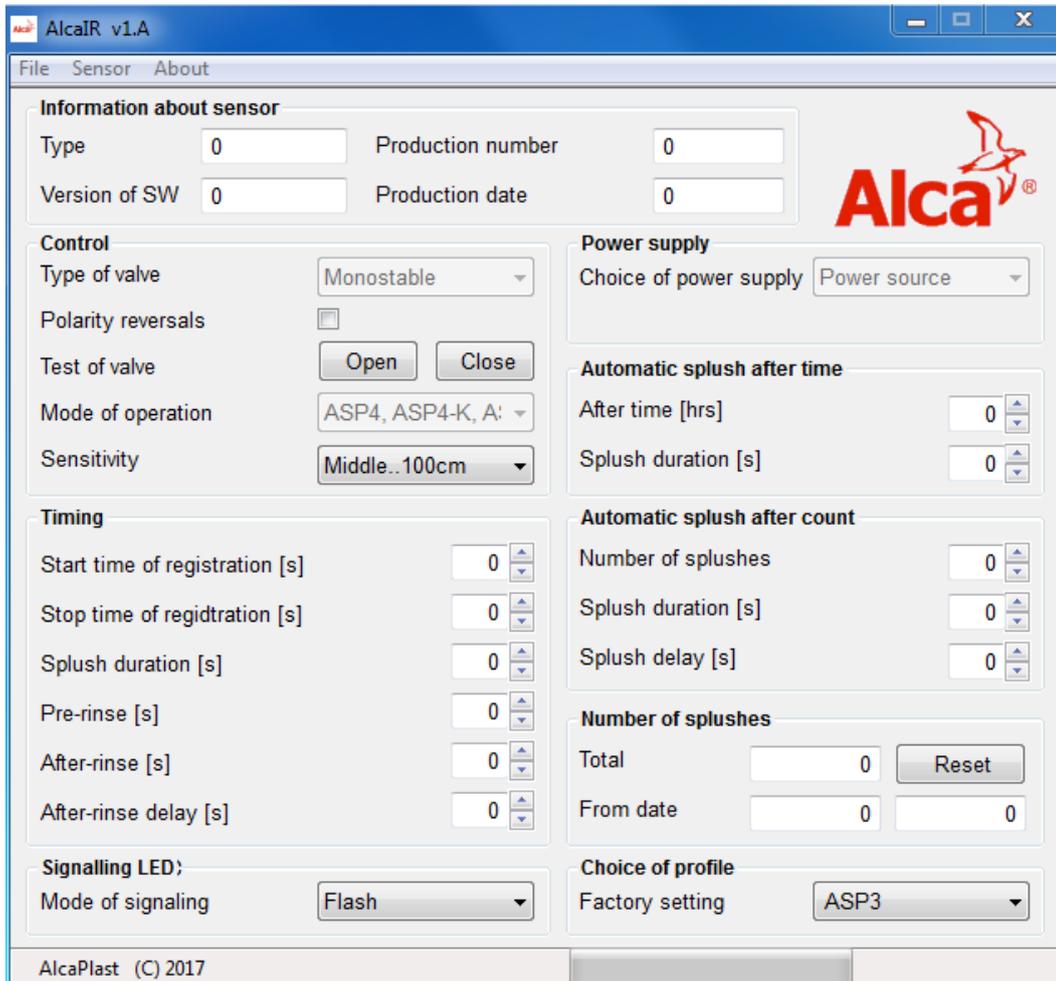
Displaying of above mentioned data is a sign of good reading and driver recognition of the sensor by the operating system. From this point it is possible to read and write parameters of the sensor. Reading the parameters can be done by selecting **Sensor/Read Sensor**. User access parameters are set in the main window, which is divided into several sections. Bottom status bar shows the progress of data loading and after loading also supply voltage.

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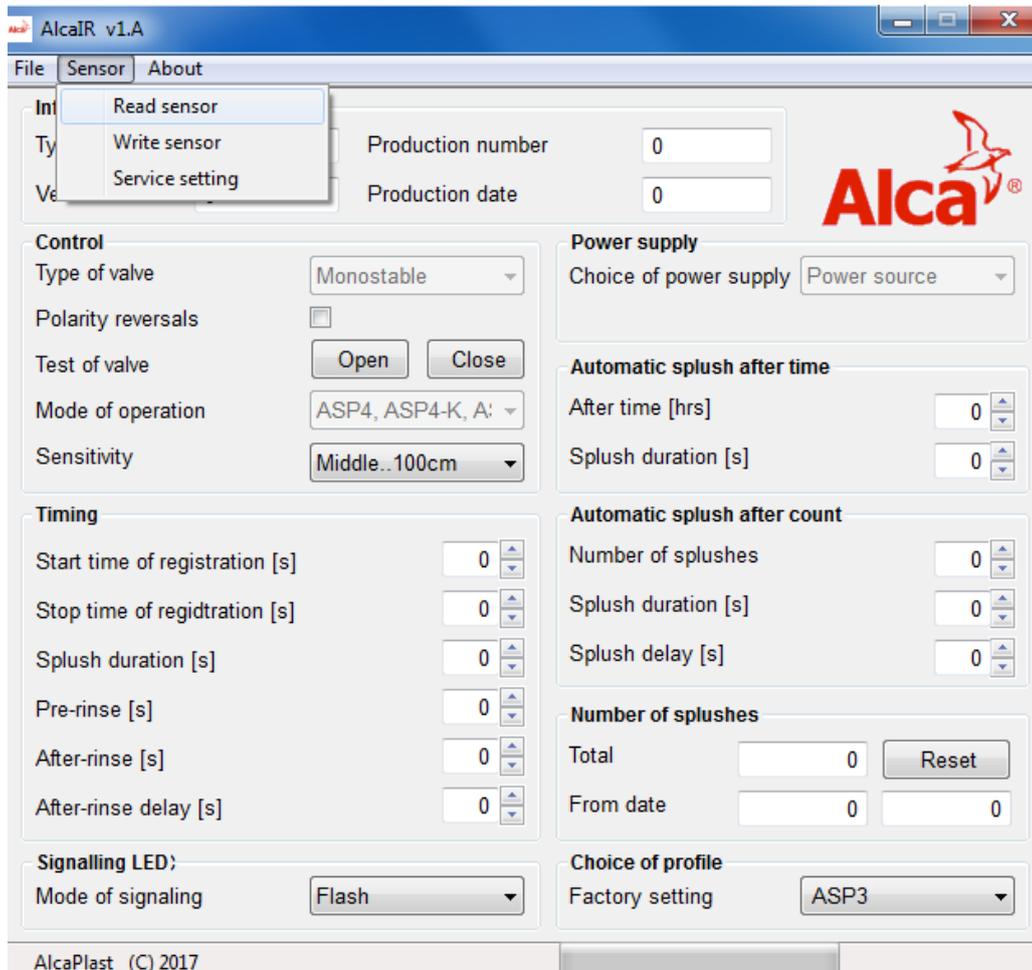
3.3.1 Section "Information about sensor"

This section contains information that can not be changed by this program. These data were entered during the production of the sensor. It is the type, serial number, software version and date of manufacturing.

3.3.2 Section "Control"

 Here you can set the values of the basic sensor functions:

- **Valve type** - Displays the type of solenoid valve at which the sensor is programmed.
Bistable - It is a valve designed for the battery operation, which is controlled by two short pulses with opposite polarity.
Monostable – A valve which is necessary to permanently charge during opening. It is used when the power is supplied.

- **Polarity reversals** - If the valve closes instead of opening and vice versa, this can be eliminated by checking this box.
- **Test of valve** - By clicking on the appropriate button it is tested opening and closing the valve.
- **Mode of operation** - Displays the basic function of the sensor.

ASP4, ASP4-K, ASP4-KT - Urinal with monostable valve (12V AC power supply). Opens according to preset duration with a defined delay, or the pre-rinsing and after-rinsing are used.

ASP4-B, ASP4-KB - Urinal with a bistable valve (6V battery power supply) Opens according to the preset duration with a defined delay, or the pre-rinsing and after-rinsing are used.

ASP3, ASP3-K, ASP-3KT - Toilet splush with a monostable valve (12V AC power supply). Opens according to the preset duration with a defined delay.

ASP3-B, ASP3-KB, ASP3-KBT - Toilet splush with a bistable valve (6V battery power supply). Opens according to the preset duration with a defined delay.

M279S, M370S, M371S - Toilet splush with a monostable valve (12V AC power supply). Opens according to the preset duration with a defined delay.

M279SB, M370SB, M371SB - Toilet splush with a bistable valve (6V battery power supply). Opens according to the preset duration with a defined delay.

Sensitivity - This element sets sensor reach (Low ... 50 cm, Central ... 100 cm, High ... 200 cm) at three levels. In each stage it is possible to tune to the specific lighting conditions of space in which the sensor is installed by the trimmer implemented on sensor body. The setting affects power of IR LEDs and thus has an impact on battery life.

3.3.3 Section "Timing"

In this section are set timing parameters of the sensor.

- **Stop time of registration -** Time period during which it is possible to pass before the sensor without registration of the person by the sensor.
- **End time of registration -** Delay of pre-rinse (if enabled) from the registration time of the person.
- **Splash duration -** Duration of the main splash.
- **Pre-rinse -** The duration of the pre-rinse.
- **After-rinse -** The duration of the additional rinse after the main splash. Setting value 0 deactivates the function.
- **After-rinse delay -** Delay of additional rinse after the main splash.

3.3.4 Section "Signalling LED"

- Mode of signaling - Sets LED signals during person registration.
Off - LED signaling during registration of a person is permanently deactivated.
Flash - LED flashes when registering a person in the interval of one second.
Permanent shine - LED permanently illuminates when registering a person.

3.3.5 Section "Power supply"

- Displays the type of power supply for which is the set (valve - sensor) intended.

3.3.6 Section "Automatic splush after time"

In this section is set the automatic splush if the defined time period from the last splush
has passed.
- **After time -** Time in hours from the last splush to performe automatical splush. Setting value
0 deactivates the function.
- **Splush duration -** The duration of the auto splush.

3.3.7 Section "Automatic splush after count"

The sensor having enabled this feature adds an additional splush after defined number of
splushes.
- **Number of splushes -** determines after how many splushes to perform an additional
automatic splush.
- **Splush duration -** The duration of the auto splush.
- **Splush delay -** An extra delay time of the addtional splushing after normal splush.

3.3.8 Section "Number of splushes"

- **Total** - it shows the number of splushes from the sensor production date.
- **From day** - Shows the number of splushes since the last reset. Button **Reset** resets the
counter and writes the sensor current date.

3.3.9 Section "Choice of profile"

When doing unwanted changes to the sensor settings you can quickly return to the factory
settings by selecting one of the predefined profiles.

After setting the required values, you can save them by selecting item from the main menu.
Sensor / Write Sensor. The setting procedure is indicated by the green indicator on the bottom
status bar.
After successful writing there appear signaling LED flashes on the sensor. In case that the LED does
not flashes you have to repeat the writing.
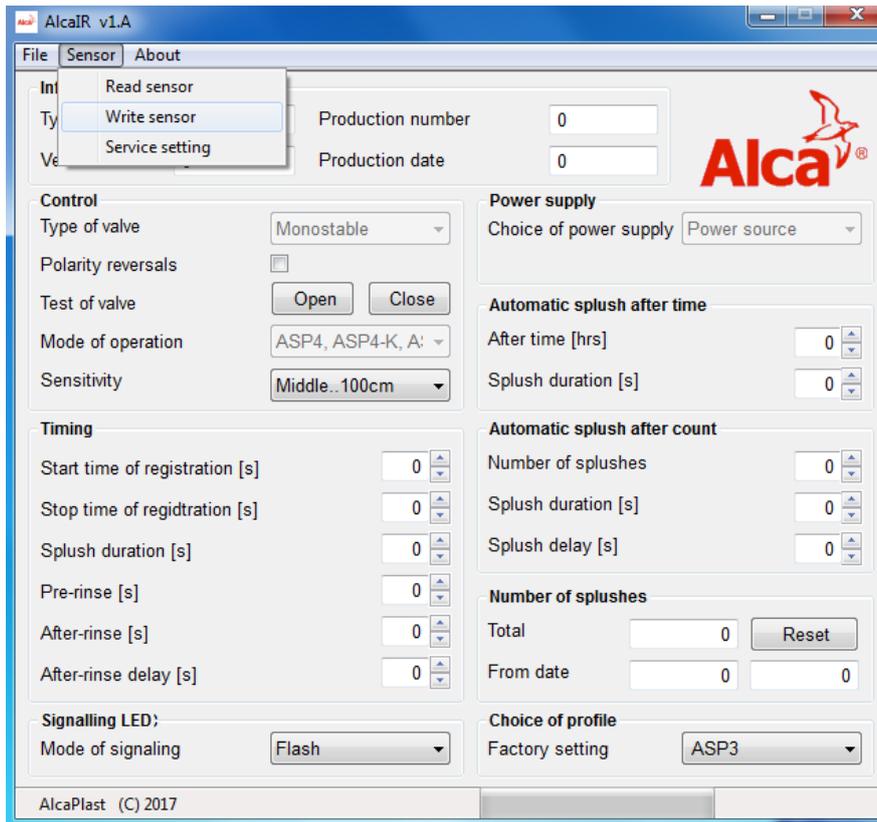
3.4 Service setting

Service settings are available by selecting **Sensor / Service setting** from the main menu.
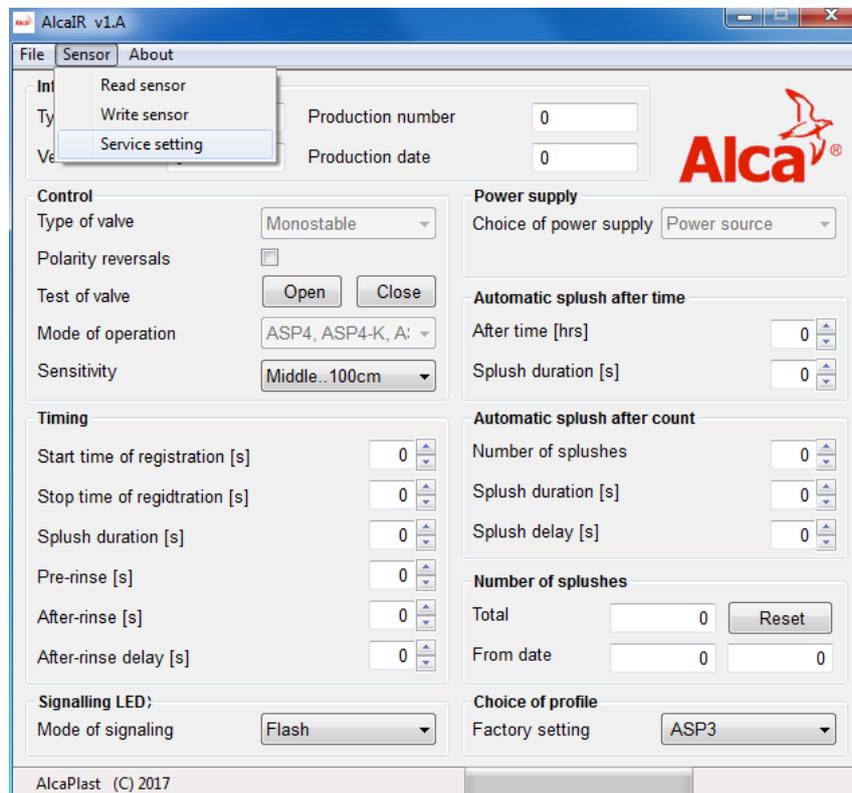
These settings are password protected and is not appropriate to change under normal operating conditions. They have an impact on energy consumption and inappropriate setting shorten operating time while on battery power.
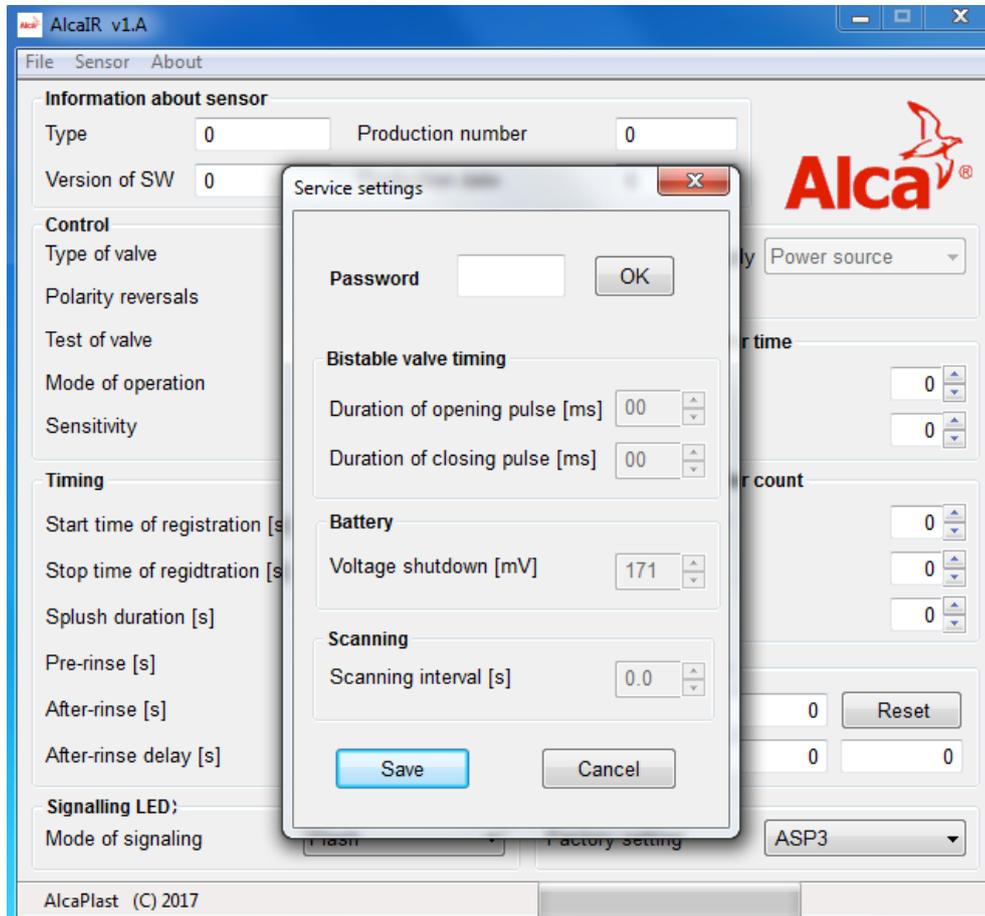
3.4.1   Section "Password"

Password - 12345678

3.4.2   Section "Bistable valve timing"

- D**uration of opening pulse -** Sets the opening duration of the bistable pulse valve.
- **Duration of closing pulse -** Sets the closing duration of the bistable pulse valve.

3.4.3 Section "Battery"

- Voltage shutdown - setting the voltage level at which the battery sensor evaluates as discharged and stops.
**Improper setup threatens that after opening the valve there may not be enough energy left in the battery on his resealing.**

3.4.4 Section "Scanning"

Scanning interval - Sets the interval between pulses IR LED and affects the response time of the sensor to the incoming person.

Saving settings must be done by clicking on the button **Save** and then selecting from the main menu **Sensor / Write Sensor**.

3.5 Main menu item "File"
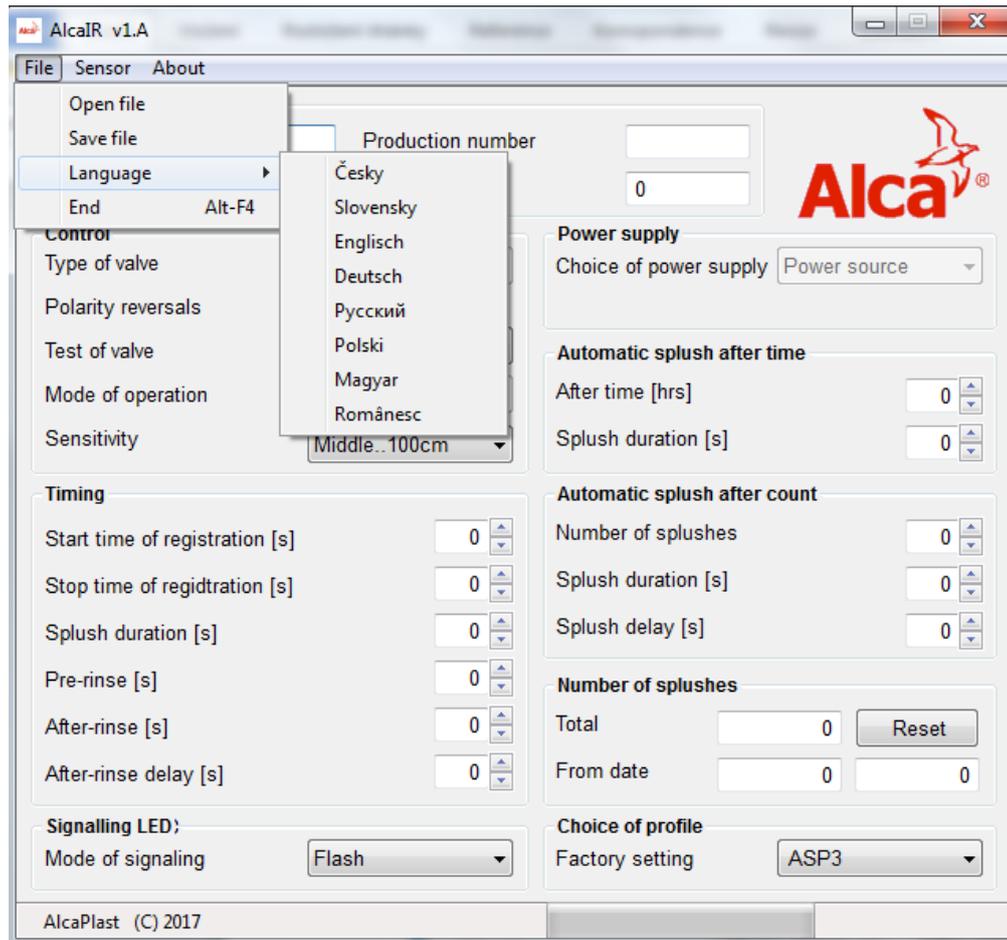
Open File - through this entry you can load a saved configuration from a file.
Save File - saves the current sensor parameter settings to a file.
Language - enables to change the language. Settings will be stored even after the end program.
End - terminates the program.

3.6 The main menu item "About"

Displays information about the purpose of the program and the license agreement.