

POOL TECHNOLOGY CONTROL SYSTEM



--- wifi module / web interface ---



1. Safety instructions



Read this user manual before installation and unit activation. Should you need any explanation or should you have any doubts, do not hesitate to contact Your VARIO supplier.



The unit shall be always installed by a trained professional. Always disconnect the main power supply before performing repairs or maintenance, or before connecting additional external devices.



The system uses radio-frequency communication. It is forbidden to use the device near mines / quarries or any places with possible risk of explosion.

2. General information

WIFI Module is a Plug&Play device that enables wireless local control by phone / tablet / PC via web browser (WIFI SERVER mode). In WIFI CLIENT mode (after registering the module to an existing WIFI network with Internet connection) the device allows remote access and control of the VA RIO control unit through the Internet.

WIFI module functions

- Remote control via local WIFI network (**WIFI SERVER** mode)
- Remote control via Internet (**WIFI CLIENT** mode)

3. Technical information

WIFI module

Dimensions (w – h – d)	50 x 100 x 40 mm
Material	ABS nylon 66
Flammability Class	UL94V-0
Power supply / consumption	230 VAC 50 Hz / max 3 W
Frequency / Band	869,530 MHz / P, max. výkon ≤ 20mW



4. Notifications of WIFI module

Using 3 LEDs, the WIFI module is able to notify the following states:



LED flashing – local WIFI is activated (WIFI SERVER mode)



LED flashing – connection to existing WIFI in progress

LED steady on – active connection to internet (WIFI CLIENT)



LED flashing – data transferring to server

5. Installation and operation mode

Installation of the WIFI module

Insert the WIFI module into a 230V electrical socket and wait for initialization. By default, the WIFI Module is configured as a WIFI server (local control) with the option to register the device to existing WIFI network with Internet access (Internet control).

Operation mode of the WIFI module

The WIFI module creates and initiates a local WIFI network. Local network name contains the serial number of the module. The SN label is on the back side of the module:



Default SSID:

WFxxxxxxxxxx

Default password:

VarioPool

Default web interface:

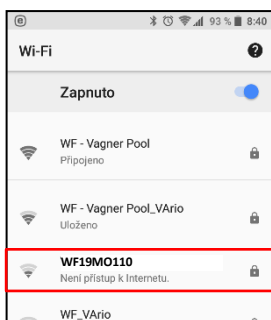
192.168.4.1

In this case:

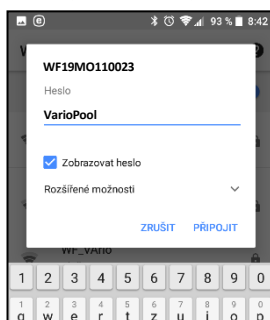
WF18MO110022 / VarioPool

--- WIFI SERVER MODE---

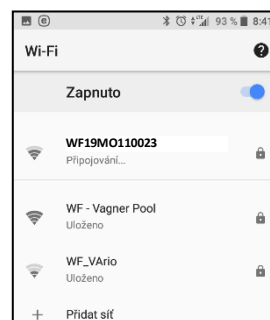
Select network **WF19MO110023**



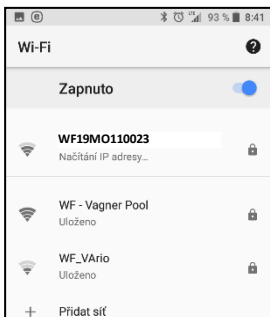
Enter password: **VagnerPool**



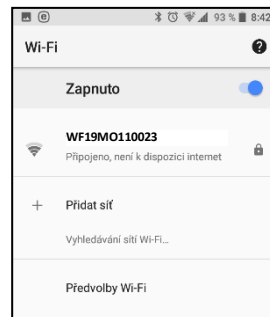
Connecting to local network



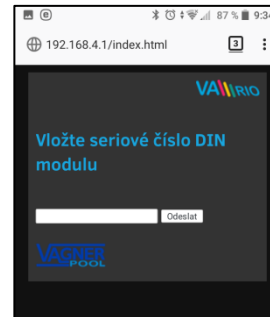
Obtaining IP address



Connected to local network



Enter **192.168.4.1** into your browser



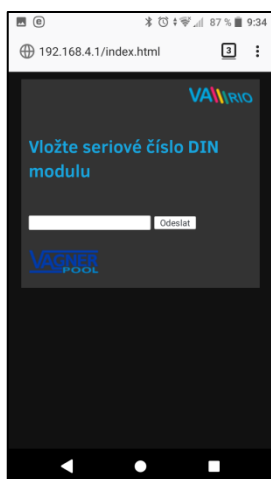
After connecting to a local WIFI network, open your web browser and enter the following address: **192.168.4.1**. A page will be displayed where the WIFI module must be paired with a DIN module.

Pairing the DIN and WIFI modules

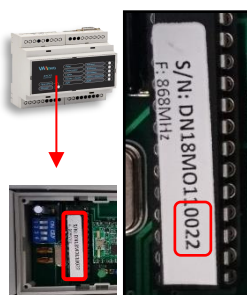
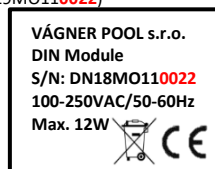
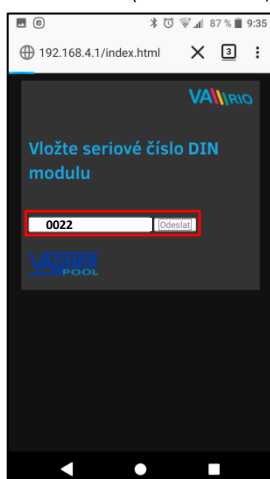
A WIFI module can be added to any existing installation where a DIN module is used. TO extend the control functions by phone/PC/tablet control you need to register the DIN module S/N into the WIFI module (pair the two devices).

Connect to the local WIFI network (in this case **WF19MO110022** – see the previous page **WIFI SERVER**) and type the **192.168.4.1.** address into your web browser. Further procedure is as follows:

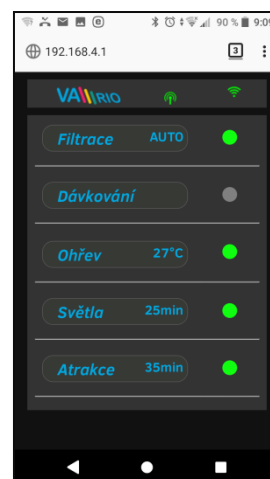
WIFI module automatically requests the DIN S/N



Type in the S/N of the DIN module
(S/N is on the side label or on the processor label under cover)
(In this case DIN S/N = DN19MO11**0022**)



Pairing successful

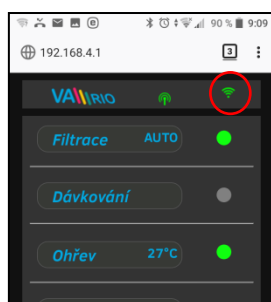


After successful DIN module registration (pairing) a page with actual DIN output statuses appears. In case a fault S/N is entered the unit will attempt registration, fail to connect and again ask for a new S/N to be entered.

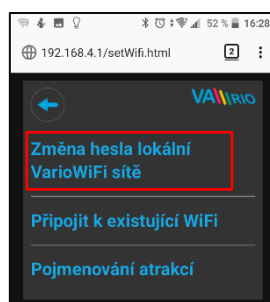
Changing the default password of local WIFI network in the WIFI SERVER mode

After connecting to the local WIFI network open your web browser and enter the 192.168.4.1. address.

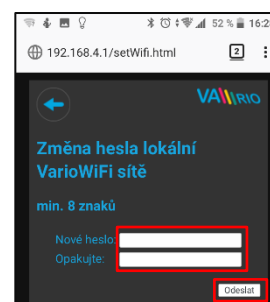
Enter the **192.168.4.1** and click the WIFI symbol



Choose "**Change local VARIO WIFI password**"



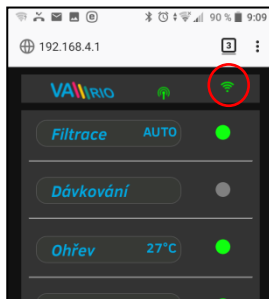
Enter and confirm your new password



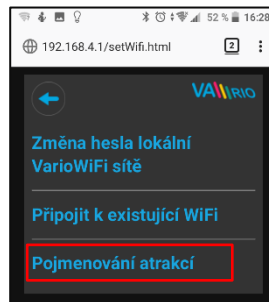
Renaming the attractions and other connected devices

After connecting to local WIFI open a web browser and enter 192.168.4.1.

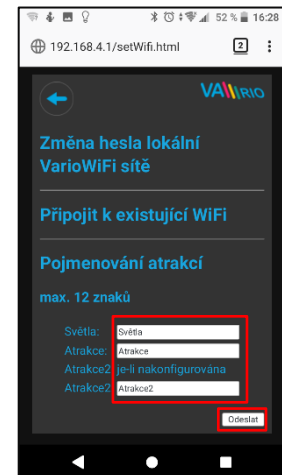
Enter the **192.168.4.1**
and click the WIFI symbol



Choose **"Rename attractions"**



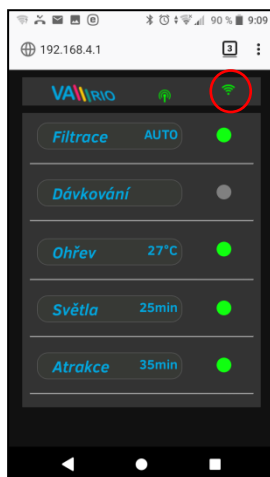
Enter new names and confirm



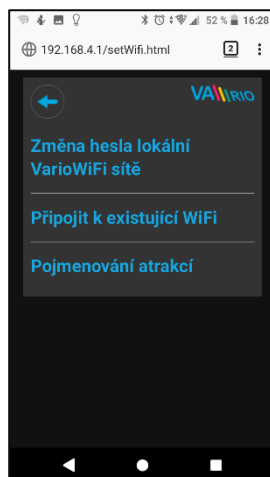
After a successful set-up of the WIFI module in SERVER mode, you have the option to change the operating mode from **WIFI SERVER** to **WIFI CLIENT**. You can then register the module to an existing WIFI network, which will allow you to access the control system via the Internet (web service).

--- WIFI CLIENT MODE --- (CONNECTING TO AN EXISTING WIFI NETWORK)

Open 192.168.4.1. and click
the WIFI symbol

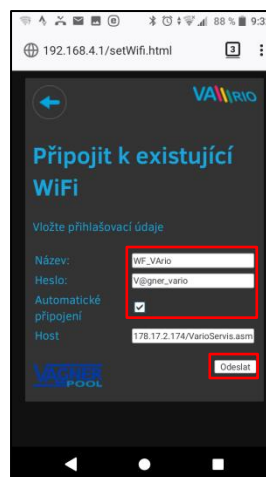


Register to existing WIFI

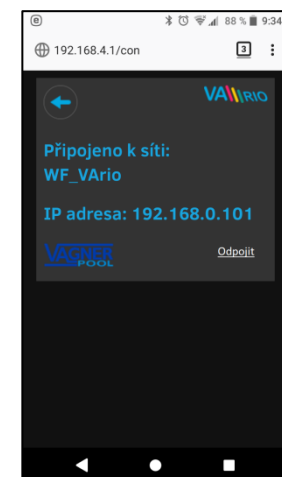


Enter SSID and password of an
existing WIFI

(e.g. **WF_Vario / V@gner_vario**)



System successfully connected

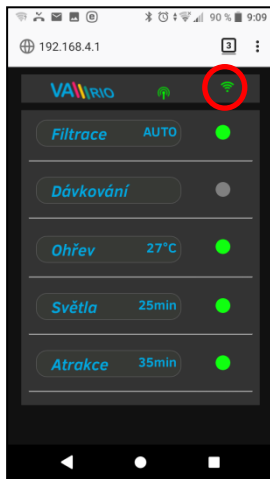


After successful registration of the WIFI module to an existing WIFI network, open your web browser and open the www.variopools.com webpage. A web interface opens where you can monitor the status of the DIN module and control each particular device and attraction incl. changing their operating parameters from your phone/tablet/PC, using the Internet.

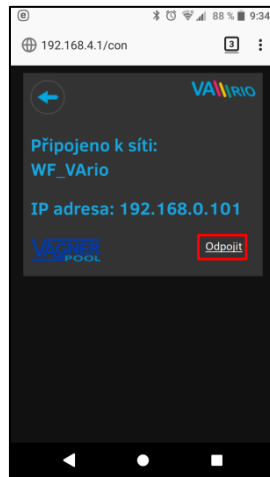
--- RETURN TO WIFI CLIENT MODE --- (DISCONNECTING FROM A WIFI NETWORK)

Connect to the local WIFI NETWORK (in this case **WF19MO110022** – see previous page, operating mode WIFI SERVER) and enter the **192.168.4.1** address into your browser and follow the steps below:

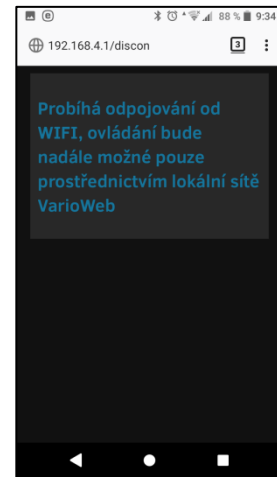
Enter 192.168.4.1 into web browser and click the WIFI symbol



Click "Disconnect"



System successfully disconnected



Remote control and remote access addresses

Local web interface simplifies the whole system control. The menu structure and settings are similar to those on the RC module. To control your pool, you can use a web browser on your PC, smartphone or tablet:

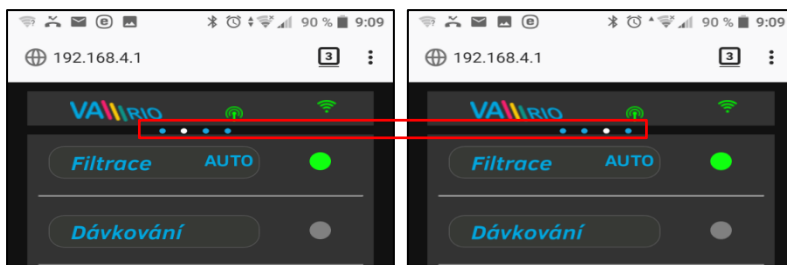
- **192.168.4.1** - local WIFI control (over **WFxxxxxxxxxx** network)
 - control in the **WIFI SERVER** mode without access to the Internet
- <https://www.variopools.com> - access over the Web service (Internet access)
 - Control in the **WIFI CLIENT** mode with access to the Internet over an existing **WIFI** network
 - in order for the **DIN** module to be accessible over the Internet, the **WIFI** module must be paired with the **DIN** module and registered to an existing **WIFI**
 - Registration and system control over the web service is described in Section 7



6. VArio operation and control

Status updating and notification

The Web Interface / browser display parameters / statuses of the DIN module and refreshes the page automatically every 3 seconds (**WFxxxxxxxxxx**) or every 30 seconds (local network/Internet). Updating in progress / reading statuses are notified by a moving white dot.

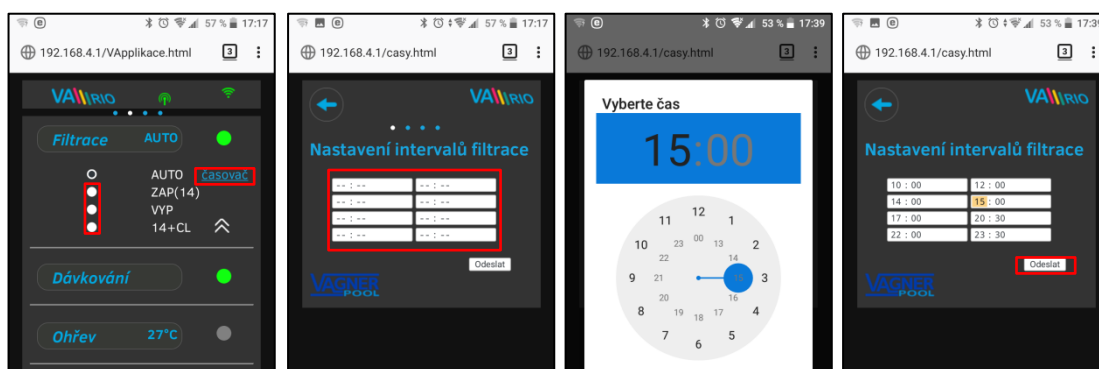


Before any parameter change, it is necessary to wait for the updating / status change confirmation.

System operation and parameter control

Using the web interface, you can modify and change the parameters similarly to the remote-control module (RC). The following screenshots will guide you through the operation control options:

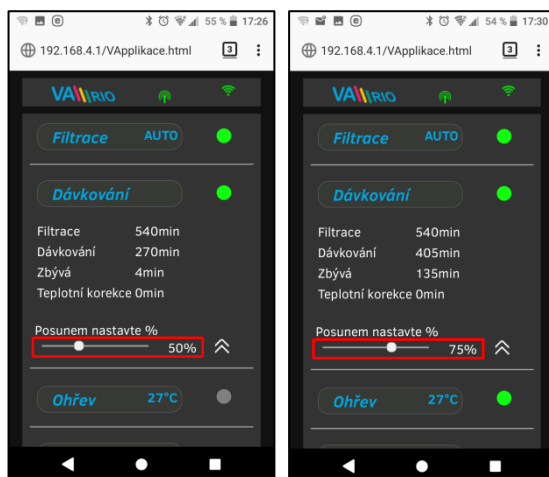
A. FILTRATION



There are 4 modes of filtration control:

- AUTO – ON timer with up to 4 programmable cycles
- ON(XX) – manual ON with pre-set duration (XX hours) without chemical dosing (e.g. filter backwash, pool cleaning, etc.)
- OFF – manual OFF (e.g. some technical issue, pump pre-filter cleaning, etc.)
- (XX)+CL – manual ON with pre-set duration (XX hours) for intensive chemical dosing (e.g. shock chlorination)

B. DOSING / ATRACTION2



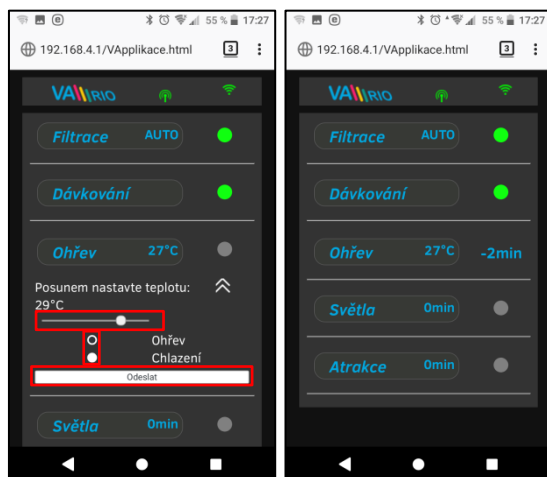
Relay output R2 of the DIN module could be configured for “**Dosing**” (this case = salinator) or “**Atraction2**” mode.

In the “Dosing” mode you are able to adjust the dosing intensity by setting the total dosing operation time – the unit can operate from **25 %** up to **100 %** of total filtration time.

With water temperature **above 28°C** the *automatic temperature correction function* will be activated and the dosing time will be extended to compensate the effect of higher water temperature.

With water temperature below **14°C** the *automatic temperature shut-down function* will activate and switch off the output to protect the dosing device (this case = salinator.)

C. TEMPERATURE



Relay output R4 of the DIN module could be configured for “**Heating**” (this case) or “**Cooling**”.

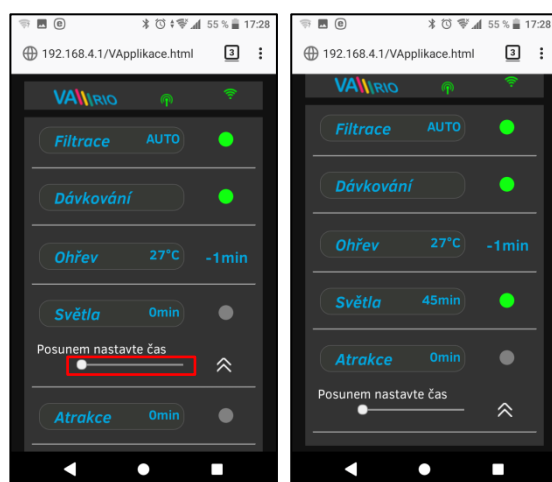
Set the water temperature with the slider, select the heating or cooling mode and confirm the changes with the “**Send**” button.

There is a default delay for the output activation (this case = 2 minutes). The device will start operating after this delay.

Even with the heating / cooling device off, the system will automatically run the filtration pump for 5 minutes each hour to ensure correct temperature reading.

With water temperature **below 4°C** the *automatic anti-freeze protection function* will be activated and every ½ hour the filtration pump will run for a short time to prevent freezing.

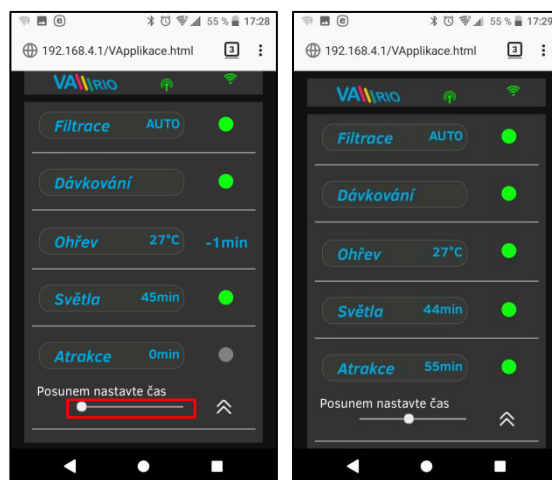
D. SVĚTLA



Relay output R3 of the DIN module is used for pool lights with timer (+5 min. step). Operation timer can be set within the 0-120 minutes range.

In this case the lights will be turned off automatically after 45 minutes of operation.

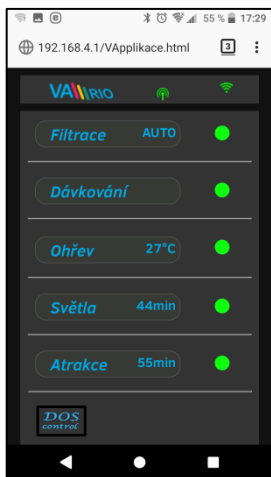
E. ATTRACTION / ATTRACTION2




Relay output R5 of the DIN module is used for pool attraction with timer (+5 min. step). Operation timer can be set within the 0-120 minutes range. The same settings could be applied also for the R2 relay in Attraction2 mode.

In this case the attraction will be powered off automatically after 55 minutes of operation.

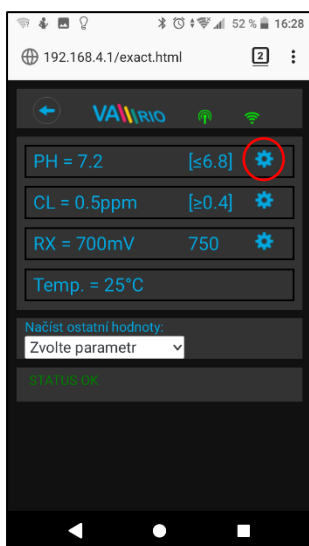
F. DOSING UNIT (function is available only when a dosing unit is connected to the DIN module)



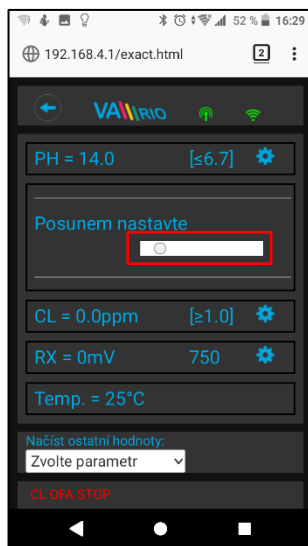
Click the  icon to activate the view-only mode for the dosing station, which is connected to the DIN module. All available statuses, alarms and parameters – pH/RX/FCL/temperature/flow rate, depending on type of the dosing unit – can be viewed.

For the moment the dosing station settings/parameters cannot be modified or the alarms deactivated online. Modifications can be made via the RC remote control module and full controls incl. alarm shut-off are available on the dosing station panel.

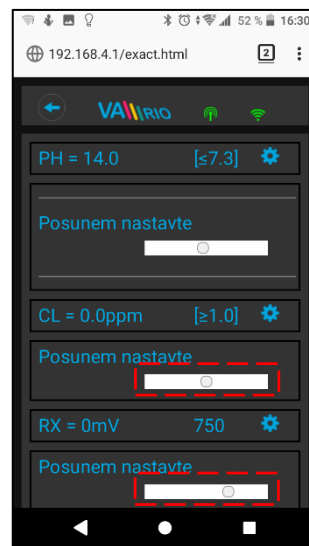
Displaying connected VA DOS EXACT dosing unit



Move the slider to set the desired pH level



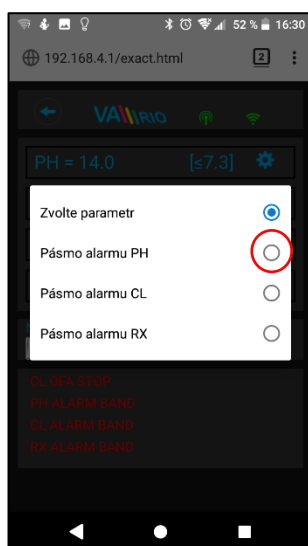
Adjust the Chlorine or Redox values the same way



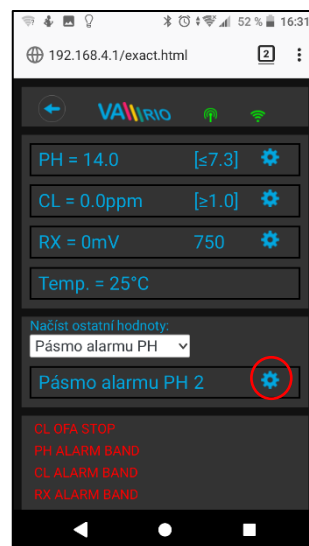
Click **“Load other parameters”** to set the alarm bands



Select the parameter from the menu



Move the slider to adjust the alarm band



Výše uvedené změny a nastavení platí pro parametr pH. Stejným způsobem provedete změnu požadované hodnoty nebo alarmového stavu parametru Chlor (CL), resp. Redox (RX).

7. Registrace WIFI Modulu a webová služba

In order to open the VARIO system to the Internet, the WIFI operating mode must be switched to CLIENT and the login details of an existing wifi network must be entered.

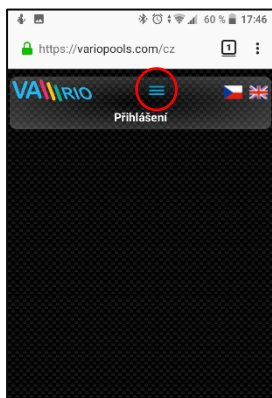
For successful registration a **WIFI Module serial number (S/N)** and a **unique registration code (Web)** are required. Both codes are to be found on the back label.

VÁGNER POOL s.r.o.
WIFI Module
S/N: WF19MO110023
Web: mYPH-fw01-jgCW
100-250VAC/50-60Hz



Below are the steps to create a new account, login and WIFI module registration:

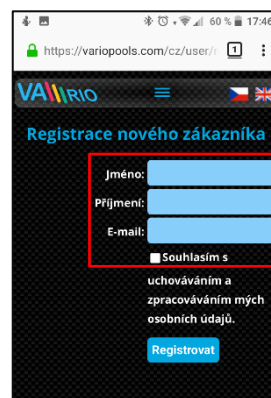
Go to www.variopools.com
and click **Login**



Create a new user account using
"New Customer Registration"



Enter the required details incl. valid
e-mail address to which you will
receive the registration confirmation



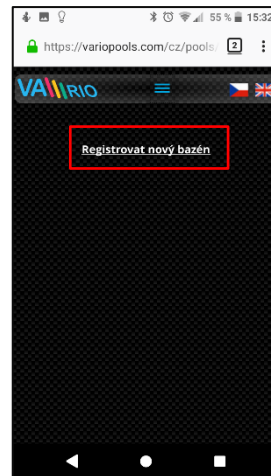
Login into your new account



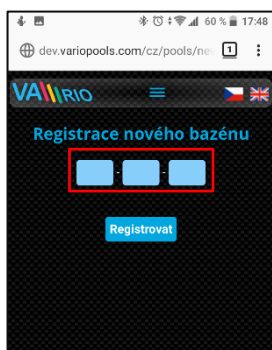
Adjust your personal settings in the
"My details" section



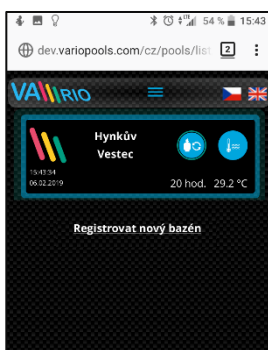
Register your pool using the
"Register a new pool" function



To register your WIFI module, enter
the registration code
(Web: xxxx-xxxx-xxxx)



The registered WIFI module with the
internet-control possibility will be
displayed as follows



DECLARATION OF CONFORMITY

The company VÁGNER POOL s.r.o. hereby declares, that all below-listed products meet the necessary requirements for placing the product on the market:

Product line: **VArio – Pool Technology Remote Control System**
Directive: **RED Directive č. 2014/53/EU**

Module: **DIN Module**

Applicable norms: **EN 62368-1: 2014/A11:2017, EN 60730-1: 2016, EN 62479: 2010
EN 301 489-1 V2.1.1, EN 301 489-3 V2.1.1
EN 300 220-1 V3.1.1, EN 300 220-2 V3.2.1**

Module: **WiFi Module**

Applicable norms: **EN 62368-1: 2014/A11:2017, EN 62311: 2008
EN 301 489-1 V2.1.1, EN 301 489-3 V2.1.1, EN 301 489-17 V3.1.1
EN 300 220-1 V3.1.1, EN 300 220-2 V3.2.1, EN 300 328 V2.1.1**

Module: **RC Module**

Applicable norms: **EN 62368-1: 2014/A11:2017, EN 62479: 2010
EN 301 489-1 V2.1.1, EN 301 489-3 V2.1.1
EN 300 220-1 V3.1.1, EN 300 220-2 V3.2.1**

Module: **Service Module**

Applicable norms: **EN 62368-1: 2014/A11:2017, EN 62479: 2010
EN 301 489-1 V2.1.1, EN 301 489-3 V2.1.1
EN 300 220-1 V3.1.1, EN 300 220-2 V3.2.1**

Conformity was checked by Technický skúšobný ústav Piešťany (TSÚ), which – based on test report No. 190500058/1-4 – issued Conformity Certificates to all of the above-listed modules.

Declaration Issue Date: **20. 3. 2019**

Producer Stamp and Signature:



Note:

For web communication, the libraries are used under the GNU Lesser General Public License v2.1 while its conditions are fully respected. (<https://github.com/esp8266/Arduino/blob/master/LICENSE>)

PRODUCER:

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