COMAC CAL

FLOW 33 BT Setup

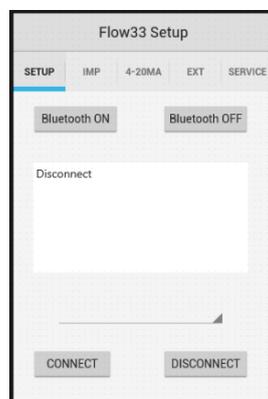*Manual for using the setting software FLOW 33 BT Setup by means of Bluetooth communication.*

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Basic description of the software

This software is designed for changing or controlling the FLOW 33 meter user settings. In order to use this software, both of the devices must incorporate Bluetooth communication. Bluetooth is a short-range wireless communication technology, making it possible to establish connection between devices up to a distance of approx. 8 metres. These devices are provided with the ◈ logo. This logo is located on the nameplate of the meter.

Current software version is designed for Android operating systems only!

Installation takes its course in a classical manner according to the device used. After installation and launching the program, the user has individual tabs (see figure) according to associated individual parameter groups. Prior to connecting and setting, it is necessary to pair both devices in Bluetooth setup right in the device (except for FLOW 33 Setup software).

Installation of .apk package

The programs in Android OS are applications in the package with .apk suffix and the installation itself is launched from this file.

You will find the downloaded applications and you will install them using any file manager copied, e.g. to SD card. After finding the installation package FLOW33.APK, you simply "touch" the file with your finger and install it. During the first installation, the meter will inform you, most likely, that unknown sources are not permitted. It is necessary to enable them in settings (the meter will guide you) and the application is reinstalled.

The path to this option is MENU > SETTINGS > SECURITY >UNKNOWN SOURCES.

After the installation is completed, we recommend you to disable this option as you will enhance the security of your device against unwanted software.

<h1 align="center">Connection to Bluetooth devices</h1>

To launch the communication, you must be connected to your device. Activate the Bluetooth wireless module in your device (the state of Bluetooth connection is indicated by icons on System bar). If you are connecting Bluetooth to a new device (meter) for the first time, you need to pair it with your phone. Thanks to this, both devices will be configured in such a manner that they can be connected to each other safely. After that, the devices will be establishing the connection automatically.

<h2 align="center">Activation and deactivation of wireless Bluetooth module</h2>

On the desktop or on the All applications screen, touch the Phone icon . Touch the option **Wireless connections and networks**. Move the Bluetooth switch to ON or OFF position.

<h2 align="center">Pairing your phone with a Bluetooth device</h2>

Before connecting to your meter, you need to pair it with the phone (tablet, etc.). Once you have paired the phone with your device, both devices remain paired unless you cancel their pairing (e.g. by deleting the device from the list of paired devices, etc.).

Check in section **Settings > Wireless connections and networks** if the Bluetooth module is ON.

Touch the **Bluetooth** option. The phone will find and display the identifiers of all Bluetooth devices that are available within its reach, including the meters.

If the device you wish the phone to pair with, is not displayed in the list, check if this device is ON (once the meter is powered, its visible mode is activated by default).

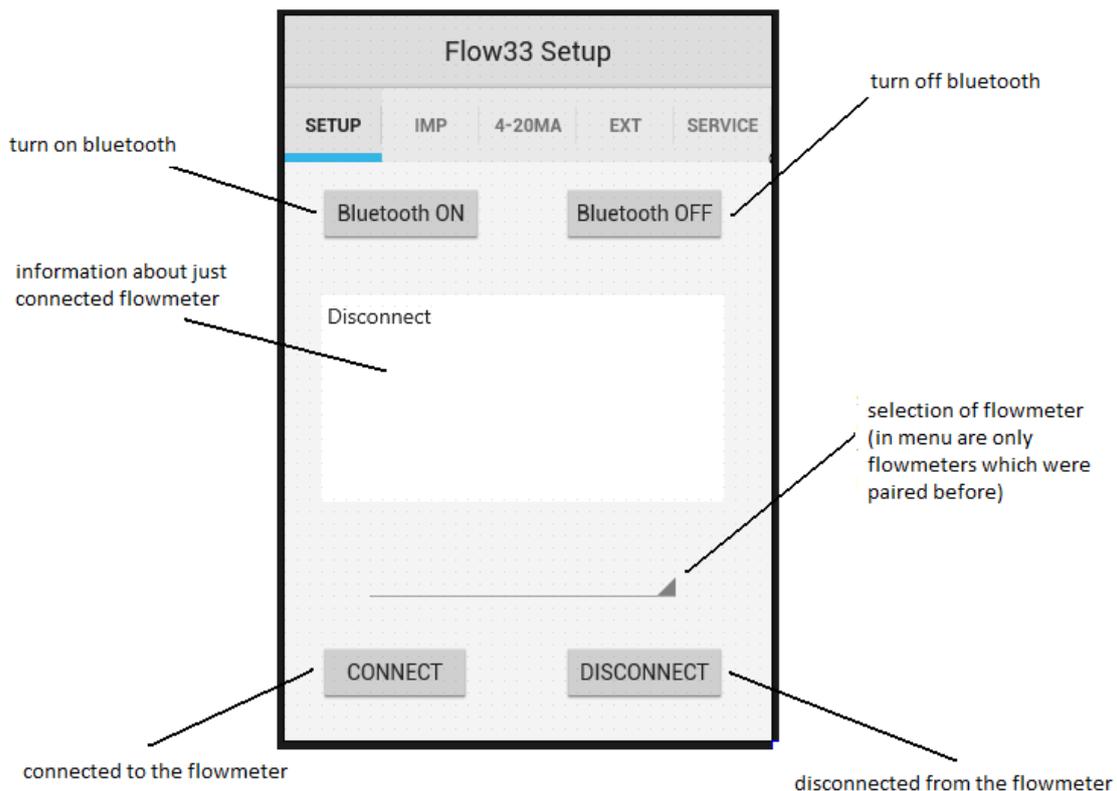If the mobile device stops searching before the Bluetooth device is prepared, touch the **Search devices** option.

In the list, touch the Bluetooth identifier of the device you wish to be paired with the mobile device. Follow the instructions and complete pairing. If you are asked to enter a password, enter 1234. If pairing is successful, the phone will connect to the device.

Connection to a Bluetooth device

Once pairing with the meter is completed and you can connect to it through the installed application FLOW 33 Setup. After launching it on SETUP tab, you can perform the connection to and disconnection from the selected and paired meter.

For selection of the meter, select the serial number of the device you wish to communicate with and the meter will be connected by pressing "CONNECT". If you cannot see the serial number in menu despite its successful pairing operation, use the "Bluetooth OFF" button to switch off and after approx. 5 seconds, switch on by the "Bluetooth ON" button. The list of devices should be updated according to currently paired serial numbers.

After termination of the communication, always perform "DISCONNECT" to disconnect from the meter. If it be to the contrary, an error occurs when returning to communication with the same serial number (in which case, switch off the Bluetooth communication and switch it on again). Consequently, it is possible to select another meter and start the communication by connection "CONNECT".
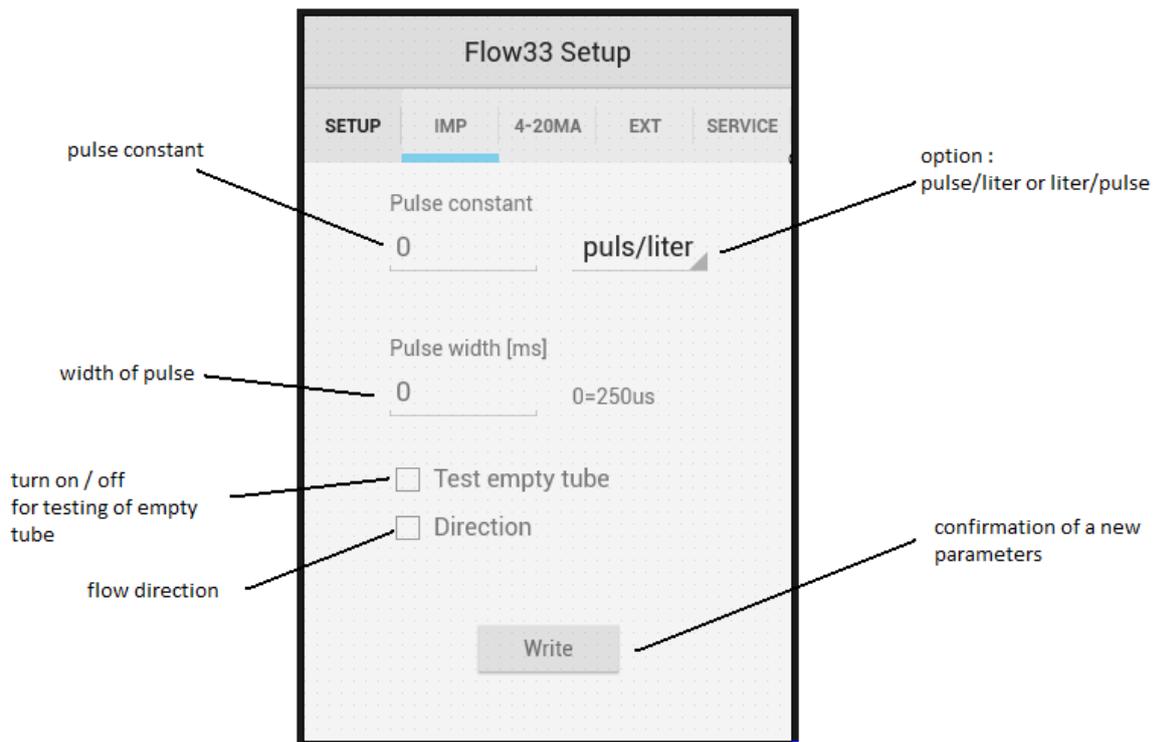
Impulse OUT1 setting

In IMP tab, the user can check or change the following settings directly:

- Configuration of impulse output OUT1
- Impulse output constant
- Selection of units for impulse constant
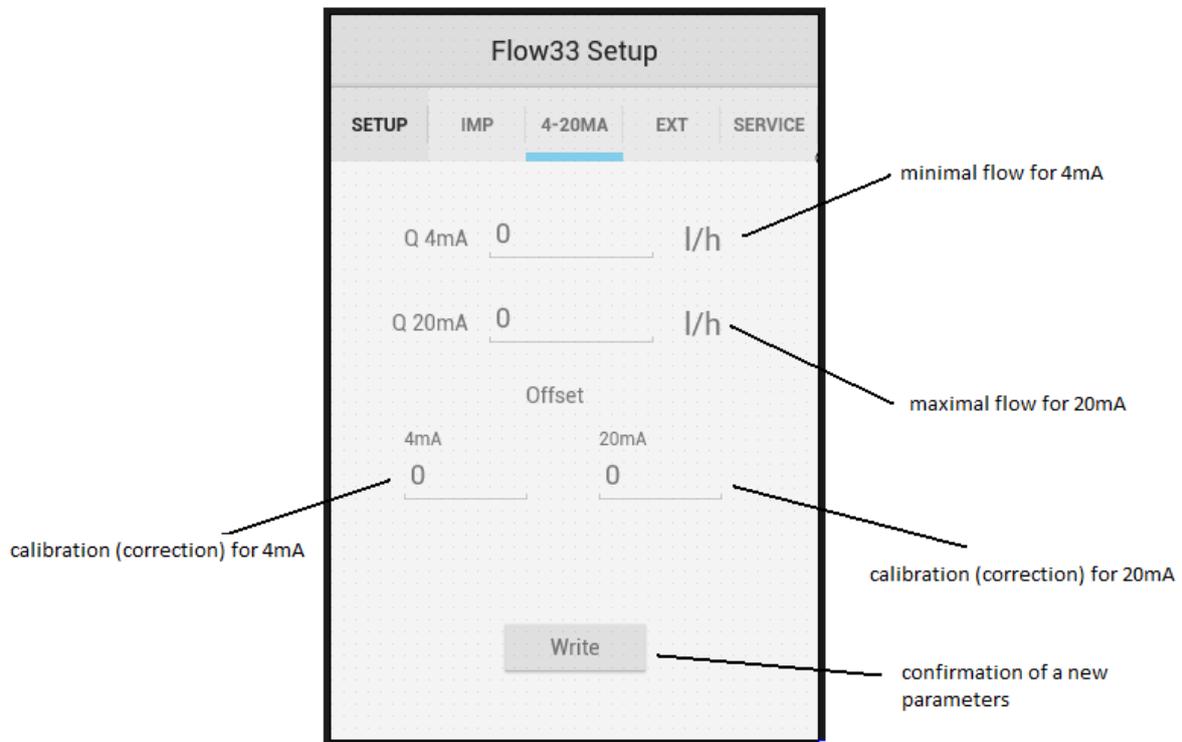- Pulse width setting

And then:

- Activation/Deactivation of empty tube test
- Selection of flow direction

pulse constant

option :
pulse/liter or liter/pulse

width of pulse

turn on / off
for testing of empty
tube

flow direction

confirmation of a new
parameters

Flow33 Setup

| SETUP | IMP | 4-20MA | EXT | SERVICE |

Pulse constant

0   puls/liter

Pulse width [ms]

0   0=250us

☐ Test empty tube
☐ Direction

Write

4 ÷ 20mA current output setting

In 4÷20mA menu, it is possible to set limits and perform current loop calibration if necessary.

- Configuration of values for low and high borders of analogue output for 4mA and 20mA.
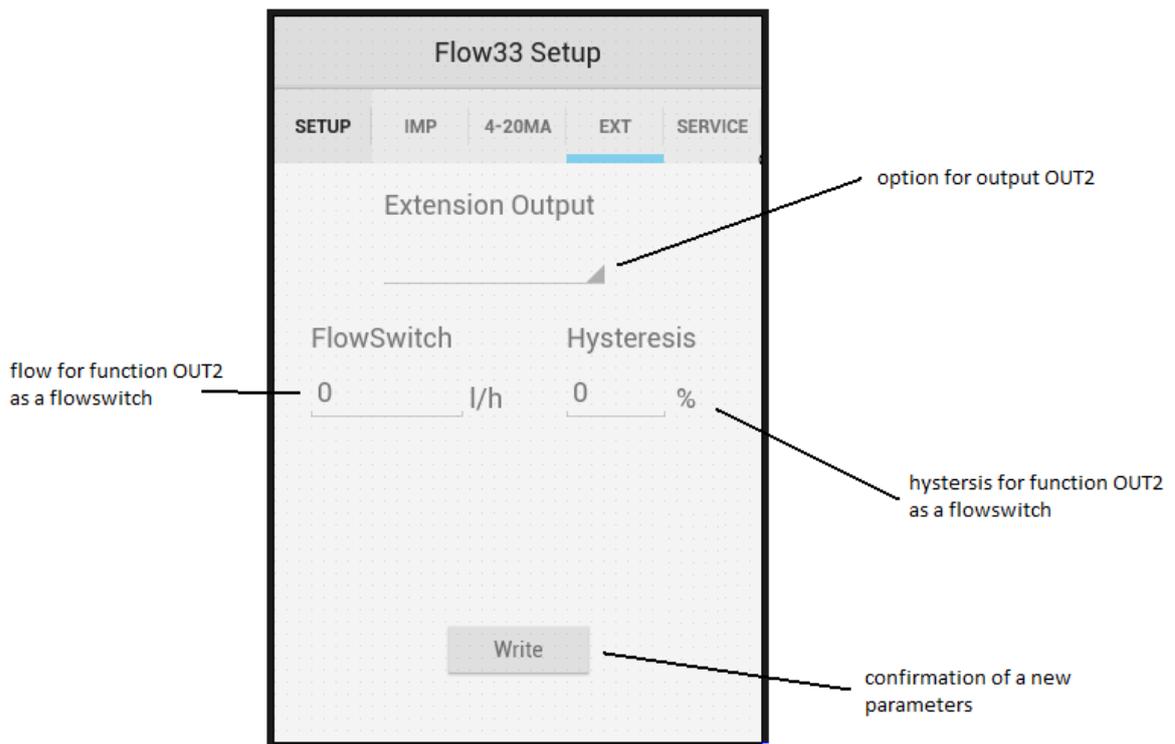- 4 and 20mA current calibration

OUT2 setting

In EXT window, configuration of the expansion OUT2 output is carried out;+ the following options are available:

- Output Failure
- Impulse output (impulse output constant is then identical to the OUT1 constant)
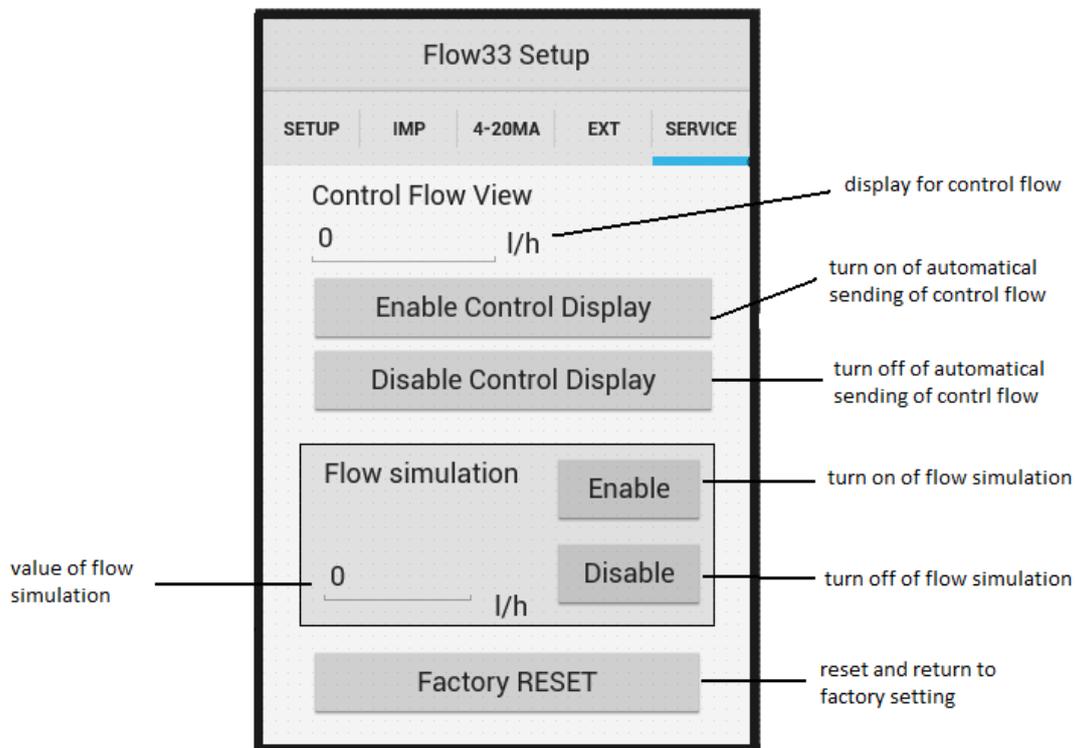- Flow direction
- Impulse output flow monitor function.

In case of setting the OUT2 to flow monitoring function, it is possible to change the switching point and hysteresis settings.

Current flow display

The last tab is the SERVICE window for indication of the current flow, factory reset and possibly the activation of flow simulation. This can be used conveniently, for example, for checking the impulse transmission or analogue signal to a higher-level system.

- Activation of sending automatic service packets (of ´the current flow)
- Activation of flow simulation for testing purposes
- Factory RESET – return flow meter to factory setting (clear actual setting)

For termination of the communication, always perform "DISCONNECT" to disconnect from the meter on SETUP tab. In case of an unexpected error, for example, failure to reconnect to the meter, possibly in case of "frozen" connection, restart the meter by a short disconnection from power.