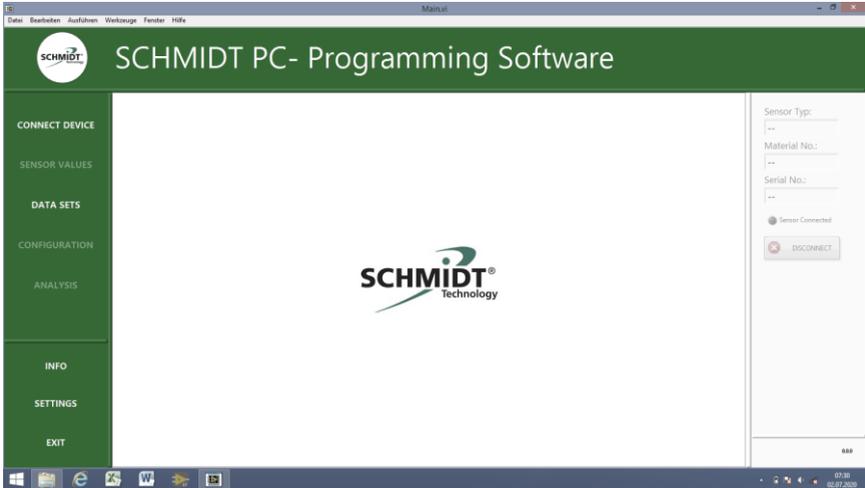


Simply a question of
better measurement



SCHMIDT[®] PC Prog. Kit Instructions for Use

SCHMIDT® PC Prog. Kit

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Subject to modifications

1 Important information

The instructions for use contain all required information for a fast commissioning and a safe operation of the **SCHMIDT® PC Prog. Kit**:

- Read these instructions for use completely and observe it carefully before downloading, installing and using the software on a suitable device.
- Any claims under the manufacturer's liability for damage resulting from non-observance or non-compliance with these instructions will become void.
- Tampering as well as interacting with the software in any way whatsoever - with the exception of the designated use and the operations described in these instructions for use - will forfeit any warranty and exclude any liability.
- The software is designed exclusively for the use described below (see chapter 3). In particular, it is not designed for direct or indirect protection of personal or machinery.
- **SCHMIDT Technology** cannot give any warranty as to its suitability for certain purpose and cannot be held liable for accidental or sequential damage in connection with the delivery, performance or use of this unit.

Symbols used in this manual

The symbols used in this manual are explained in the following section.



Important notes – Read carefully!

Non-observance of these instructions may impair the functioning of the software or the contacted device.

2 Scope of delivery

The kit (material no. 564710) consists of an USB-based programming cable and an comprehensive user interface for Windows PC, whose software can be installed from the enclosed USB stick.



In addition, a quick guide is provided as installation aid. Detailed instructions for use in German and English are also available on the USB stick.

Both the software as well as the instructions for use are also available for download at:

www.schmidt-sensors.com or www.schmidttechnology.de

3 Field of application

The **SCHMIDT® PC Prog. Kit** is exclusively designed for communicating with the proprietary **SCHMIDT®** module interface. It is intended for temporary operation of the sensor at an USB interface (no permanent use). An additional external power supply (24 VDC / 200 mA) is required to operate the sensor.

4 System requirements

A windows-based computer (PC, laptop, tablet) with an USB-interface is required to operate the **SCHMIDT® PC Prog. Kit**.

- Windows version: 7 or higher
- Data interface: USB, type standard-A (2.0 and higher)

For installation and full functionality, the **SCHMIDT® PC Prog. Kit** requires an active connection to the Internet.

The core functionalities (configuration of a **SCHMIDT®** sensor as well as displaying and storing of measurement datas), require no internet connection.

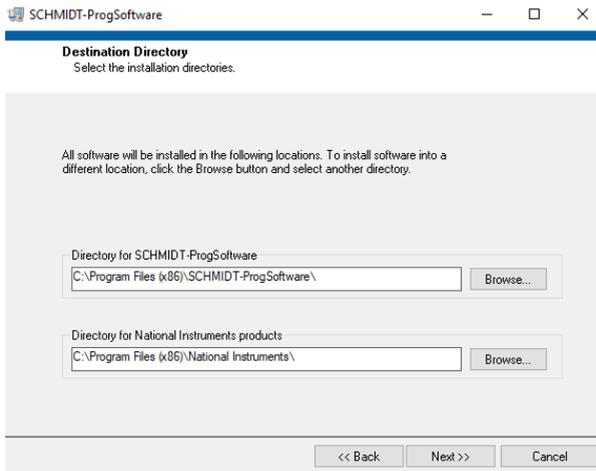
5 Installation of the software

Installation of the **SCHMIDT® Prog Software** can be started directly from the USB stick (double click on "SCHMIDT-ProgSoftware_Installer.exe"). During installation windows loads the necessary drivers from the internet, so an internet connection is mandatory here.



For installation of the software an internet connection is required.

The location (path) of the **SCHMIDT® Prog Software** can be selected, the folder name **SCHMIDT-ProgSoftware** is immutable (see figure below).



After the installation has been completed, a shortcut named "SCHMIDT-ProgSoftware" can be found on the desktop as well as in the Windows program menu.

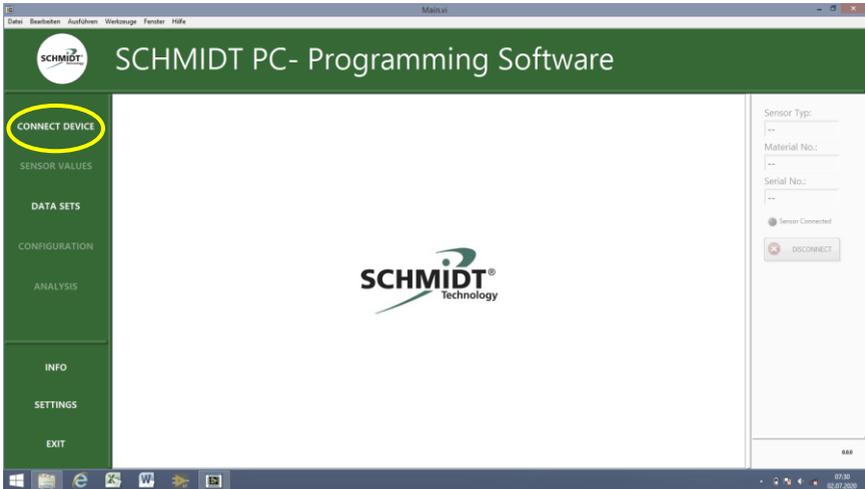
6 Connecting software and sensor

First, the sensor must be connected to the external power supply (24 V_{DC}) so that it is ready for operation.

Afterwards the programming cable has to be plugged into a free USB port of the computer (internally named as a "COM port") and finally connected to the module interface of the sensor (fully screw on connector of the programming cable to ensure flawless contact).

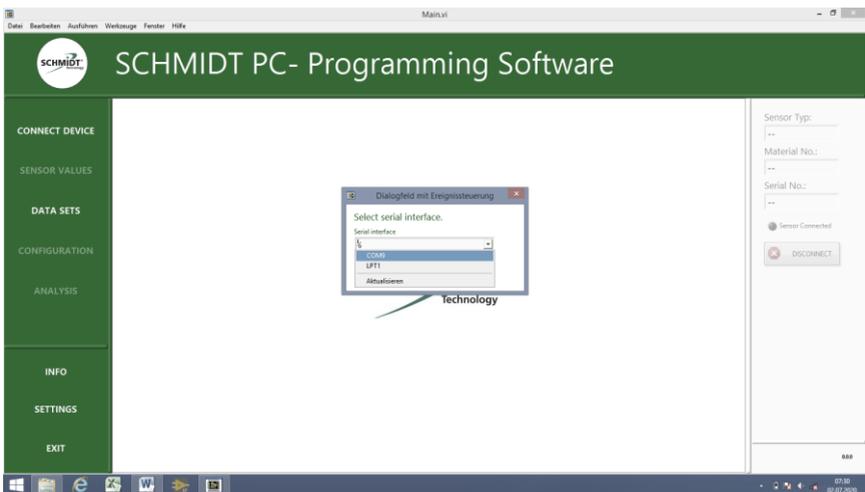
Starting the software

By double-clicking on the shortcut "SCHMIDT-ProgSoftware" the program is started and the following operating menu appears:



Communication with the sensor is established by clicking the field *Connect Device* (left column, top).

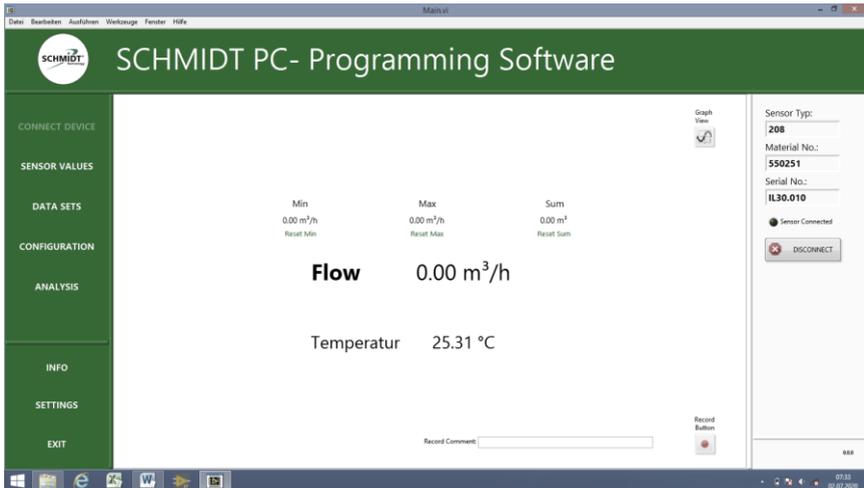
The user is initially prompted to select the computer's interface. To do this, open the drop-down list of the displayed dialog box and select the appropriate COM port (see figure below).



If multiple COM ports are displayed, the correct port can be determined as follows:

- Unplug the USB connector of the programming cable.
- Click Update in the drop-down list.
- Check which of the COM ports in the list is now missing.
- Replug the USB connector.
- Update the list again.
- Select the COM port that has been added.

Once the sensor is connected, the sensor's type data are displayed in the right column of the window and the light *Sensor Connected* flashes green (right column of the window, middle).



7 Working with the PC Prog. Kit

The **PC Prog. Kit** provides several possibilities. They range from simply displaying actual measured values, the possibility of showing a history graph as well as saving measurement values up to the configuration of the sensor. The corresponding selection is made via the menu on the left edge of the window.

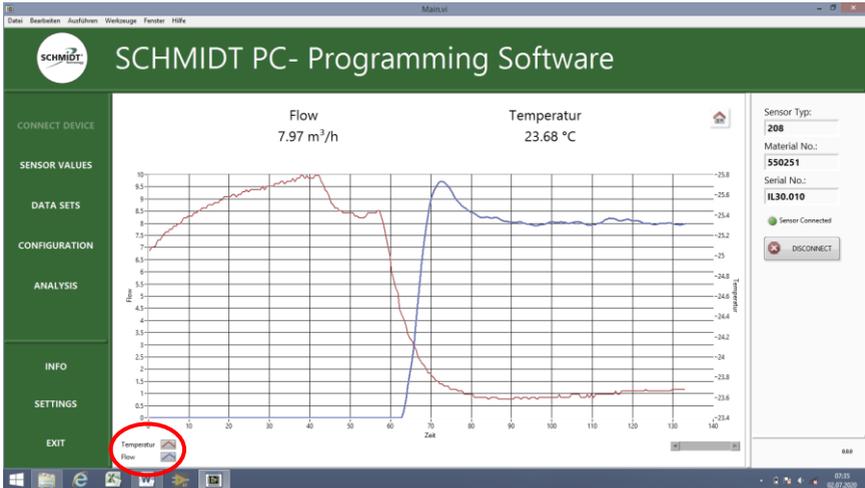
7.1 Sensor Values

The window *Sensor Values* shows the actual measured values as well as their *Min*- and *Max*-values and the sum value which are determined during the actual existing connection. The limit values *Min*, *Max* and *Sum* can be reset to zero by clicking the "Reset" button.

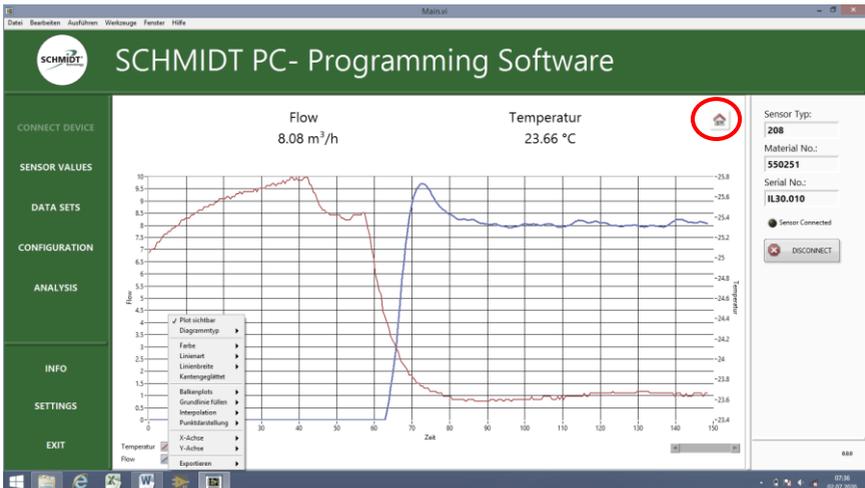
Alternatively, this search can be started via the *Bluetooth*[®] icon in the footer of any other display screen:

7.2 History graph

The button "Graph View" in the window *Sensor Values* (top right) accesses the history graph display.



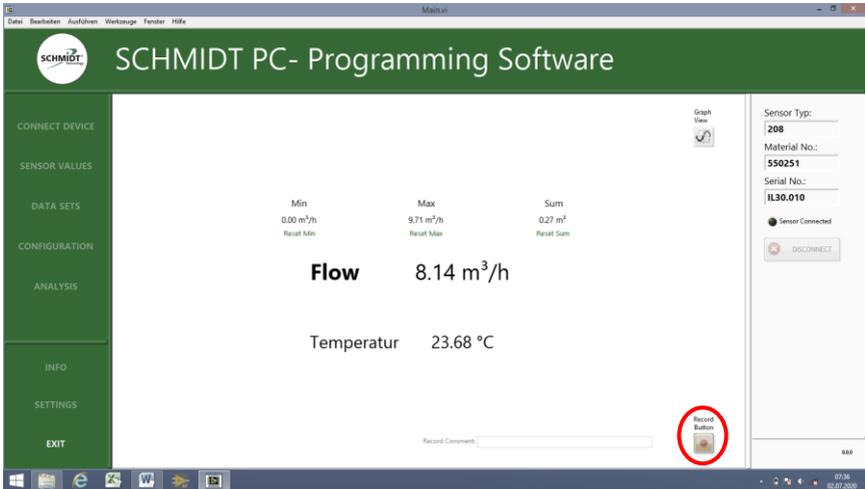
The display of the data can be adapted to individual preferences. For this purpose it is necessary to click on the legend (bottom left) to display the available options.



The button *Home* (top right) will return back to the window *Sensor Values*.

7.3 Record data

In order to start the recording, you must click the “Record Button” in the window *Sensor Values* (bottom right).



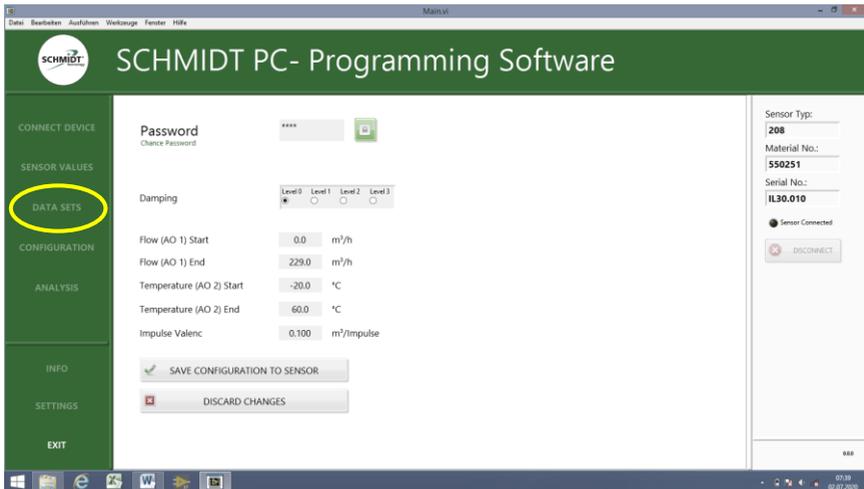
In the field *Record Comment* that opens, an additional, arbitrary comment can be entered, which is saved together with the measurement data. The recording can be stopped by clicking the *Record button* again.

The created data sets can be found under the menu item *Data Sets* (left column), where they can be opened or deleted.



7.4 Configuration of sensor

The sensor can be adapted to the specific measurement situation by changing various parameters. To do this, the window *Configuration* must be opened in the menu on the left.



In order to access the parameterisation of the sensor, the correct password must be entered at first. The default password set on delivery of the sensor is "1234". It is strongly recommended to change the password on first use to prevent unauthorised access to the parameters.



To prevent access from unauthorised persons, the password should be changed the first time the configuration is used.

The password may not exceed 16 characters in length, whereby both numbers and letters can be used (case sensitive).

Various parameters can be customised:

- Damping: 4 levels (none / 5 s / 10 s / 20 s)
- Start value analogue output volume flow: (< final value of volume flow)
- Final value analogue output volume flow: (> start value of volume flow)
- Start value analogue output temperature: (< final value temperature)
- Final value analogue output temperature: (> start value temperature)
- Pulse valency of pulse output: IL 30.005 and IL 30.010: 0.02 ... 65 m³
IL 30.015 and IL 30.020: 0.1 ... 65 m³

- The parameter "Damping" is used to filter a measuring signal which is possibly too unstable by calculating a moving average over an adjustable period of time so that the analogue output signal is smoother. The damping is adjusted simply by clicking on one of the 4 levels depicted.
- The parameters "Start value" and "End value" enable scaling of an analogue output range¹ of the sensor in order to optimally adapt its indication span to the real measuring range of an application. For example, the final value of the volume flow of an IL 30.010 MPM (default: 229 m³/h) can be changed to 200 m³/h. Consequently, the corresponding analogue output reaches its final value of 20 mA already at 200 m³/h. Of course this must be taken into account in the subsequent system for correct measurement evaluation. If the entered value is invalid (outside of the default range or the use of invalid characters), this is indicated by a warning in a dialogue window.
- The pulse valency determines after which measured volume (quantity) a pulse is generated at the pulse output.



Changing the scaling of the sensor's analogue outputs means that they don't match the factory calibration values any longer, so that the calibration certificate is not valid formally.

Upon restoring the default parameters, the certificate is valid again without any restrictions.

The sensor-internal, digitised measured values remain unaffected by scaling of analogue outputs (in contrast, damping and pulse valence influence the digital values directly). Accessories from **SCHMIDT®** that communicate digitally with the connected sensor (e.g. **BT 10.010** or **MD 10.020**) are therefore not affected by configurations of the analogue outputs.

Once all parameters have been changed as desired, they must be stored to the sensor by clicking on the button *Save Configuration to Sensor*. If the changes are dropped, the page *Configurations* can be exited via the button *Discard Changes* without changing the sensor's parameters.

7.5 Reset password

If the self-assigned password is lost, the sensor can be reset to the default password "1234" using a PUK (Personal Unlocking Key). To do this, click on the button *Reset Password* on the locked page *Configurations*. Now enter the sensor-specific, 8-digit PUK in the displayed input mask.

The PUK can be found on the factory certificate supplied with the sensor. If the certificate is no longer available, the PUK can also be requested from sensoric's sales department of **SCHMIDT Technology**.

¹ Changes are only possible within the original measuring range.

8 Further menu fields

8.1 Info

The field *Info* provides access to the homepage of **SCHMIDT Technology**. Comprehensive information about all products as well as the imprint can be obtained here.

8.2 Settings

In the folder *Settings*, the units of measurement of the displayed values can be changed.

8.3 Exit

Quit and exit the application.

9 Technical data

| PC requirements | |
|---|--|
| Operating system | Windows 7 and higher |
| Application interface | SCHMIDT® PC-Programming Software |
| Programming cable (PC Prog. Kit) | |
| Operating current | < 100 mA |
| Electrical connections: - Sensor: - PC: | Socket plug M12, male, 4-pol, A-coded USB, type A (2.0) |
| Length | 1.5 m |
| Weight | 150 g |
| Operating temperature | 0 ... +60 °C |
| Storage temperature | -25 ... +80 °C |
| Humidity | < 95 % RH |
| Protection type | IP65 (connector of sensor) |
| Protection class | PELV (EN 50178) |
| Sensor | |
| Model | SCHMIDT® sensor with integrated module interface |
| Operating | Supply voltage (24 V _{DC} / 200 mA) connected |

10 Declarations of conformity

SCHMIDT Technology GmbH herewith declares in its sole responsibility, that the product

SCHMIDT® PC Prog. Kit

Part-No. **564 710**

is in compliance with the appropriate



European guidelines and standards

and



UK statutory requirements and designated standards.

The corresponding declarations of conformity can be download from **SCHMIDT®** homepage:

www.schmidt-sensors.com

www.schmidttechnology.de

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