OTT HydroMet

Insights for Experts

TECH-TIPP: OTT NETDL AND PLUVIO², PLUVIO²L, PLUVIO²S

SETUP AND CONNECT PLUVIO² RAIN GAUGE WITH OTT NETDLDATA LOGGER

- Installation of OTT Pluvio² operating software
- Use operating software
- Guided accuracy test
- Connection to OTT netDL logger
- Configuration of OTT netDL logger

INSTALLATION OF PLUVIO² OPERATING SOFTWARE

There are two options to retrieve the software:

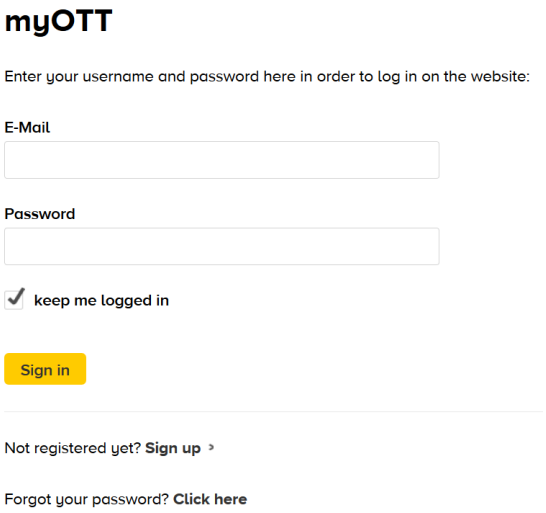
A) Install the software using the included CD

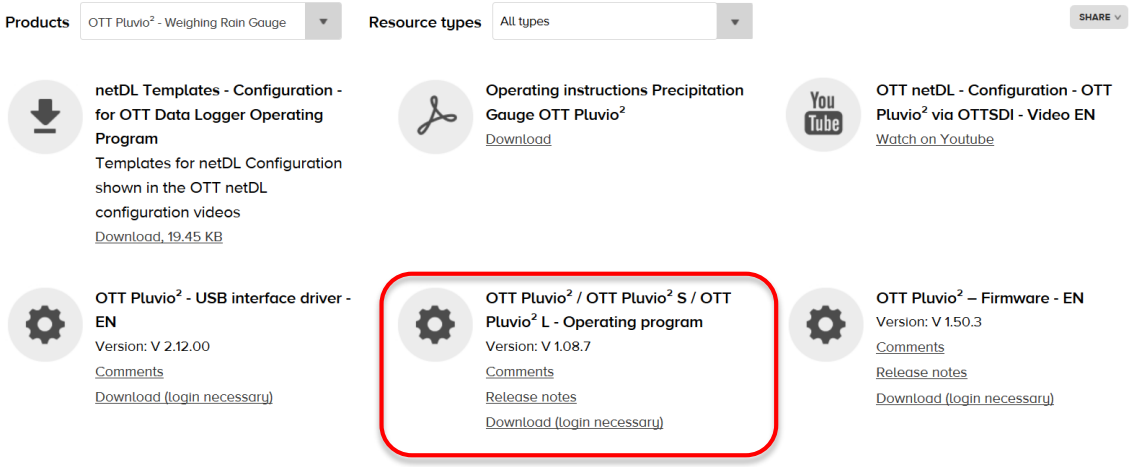
B) Download operating software from OTT Homepage at: https://www.ott.com/resources/

Download software from the OTT Homepage at www.ott.com:

If you are not registered at „myOTT“ yet, please sign up as requested at the website.

You receive a registration confirmation. Afterwards you get access to software, manuals and other documents.





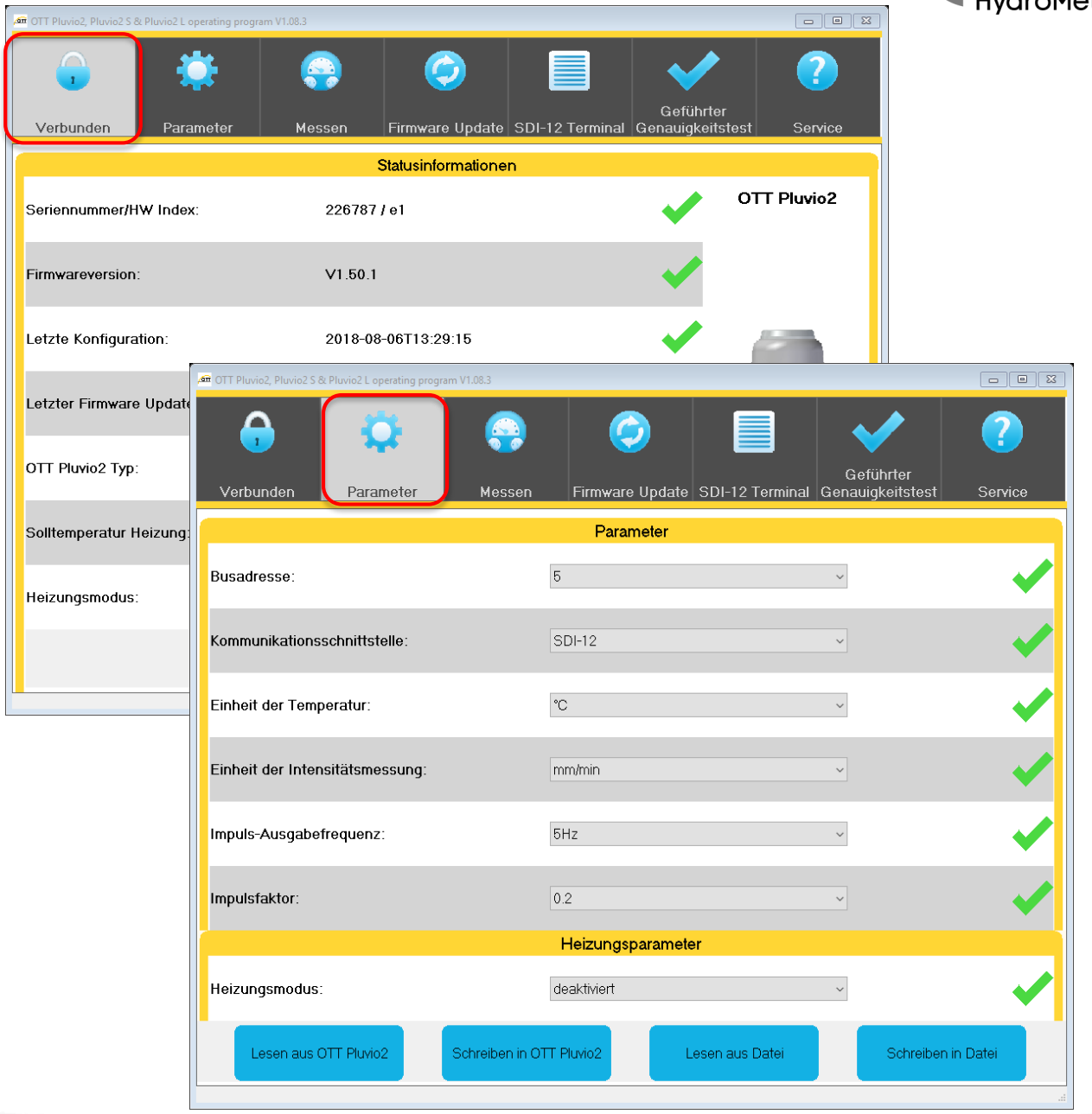
PLUVIO² OPERATING SOFTWARE

- Connection

Overview on:
- Serial number
- Firmware version
- Other device info

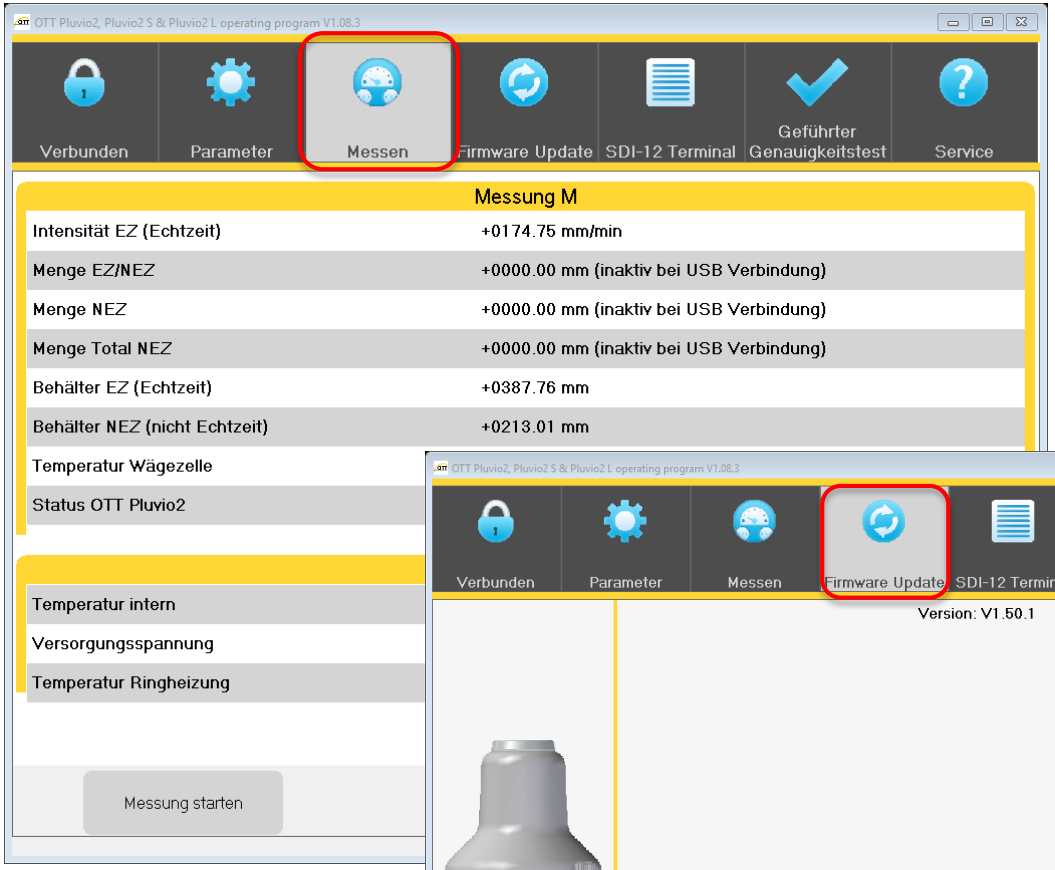
- Parameters

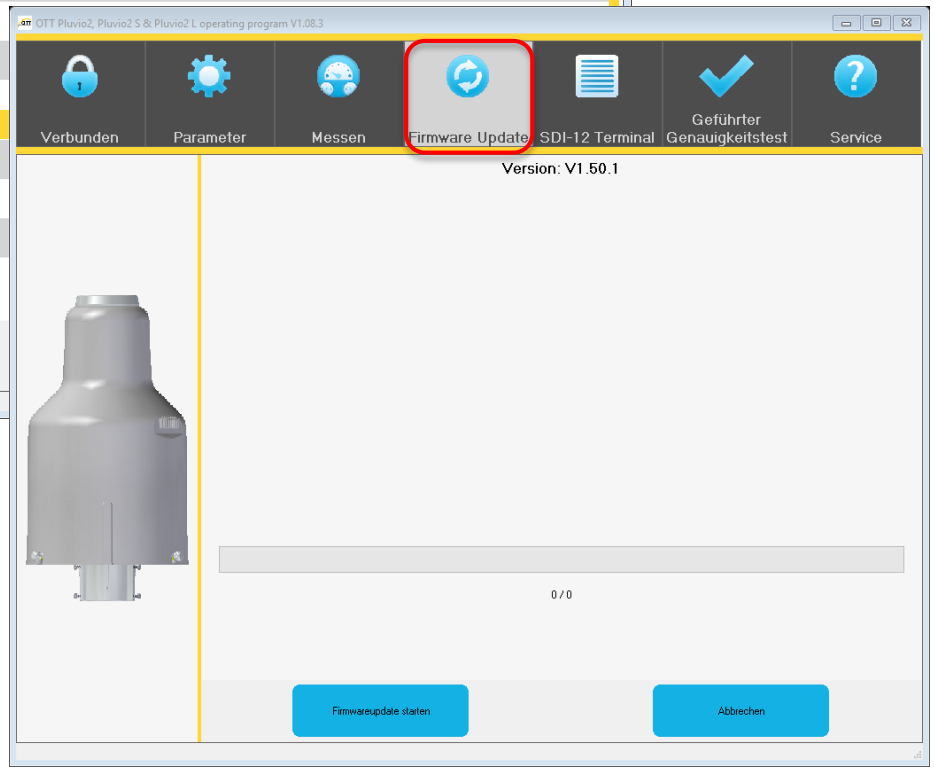
Settings for:
- Bus address
- Communication interface
- Unit of temperature / intensity measurement
- Impulse output frequency
- Impulse factor
- Heating mode



PLUVIO² OPERATING SOFTWARE

- Measure
  - Starts a new measurement and issues the values of the individual encoders.
  - Some values cannot be displayed when the USB connection is active.





- Firmware Update
  - Installing a new firmware version

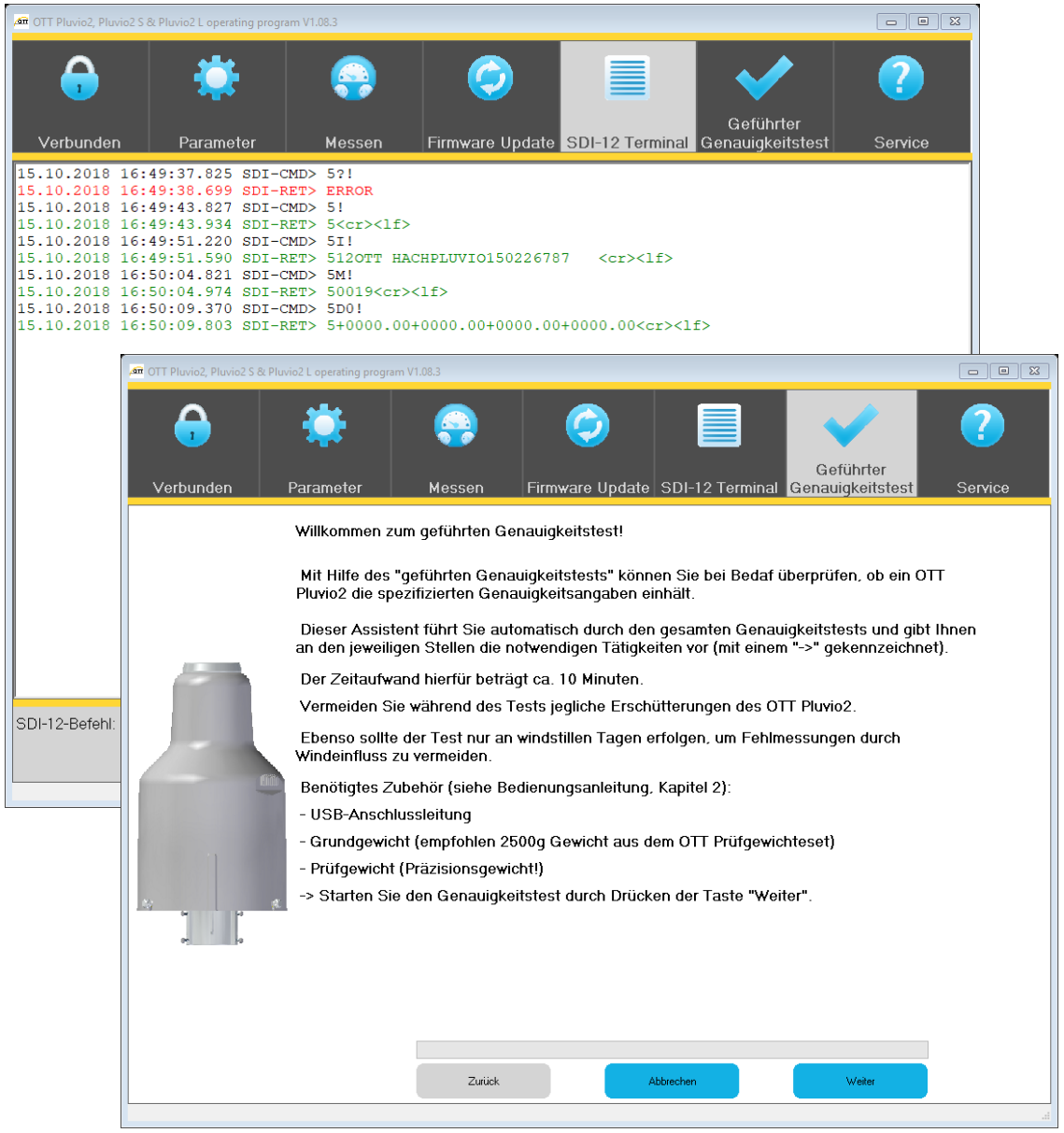
Please make sure that you select the correct firmware for the appropriate Pluvio version!

PLUVIO² OPERATING SOFTWARE

- SDI-12 terminal
  - Input option for SDI commands

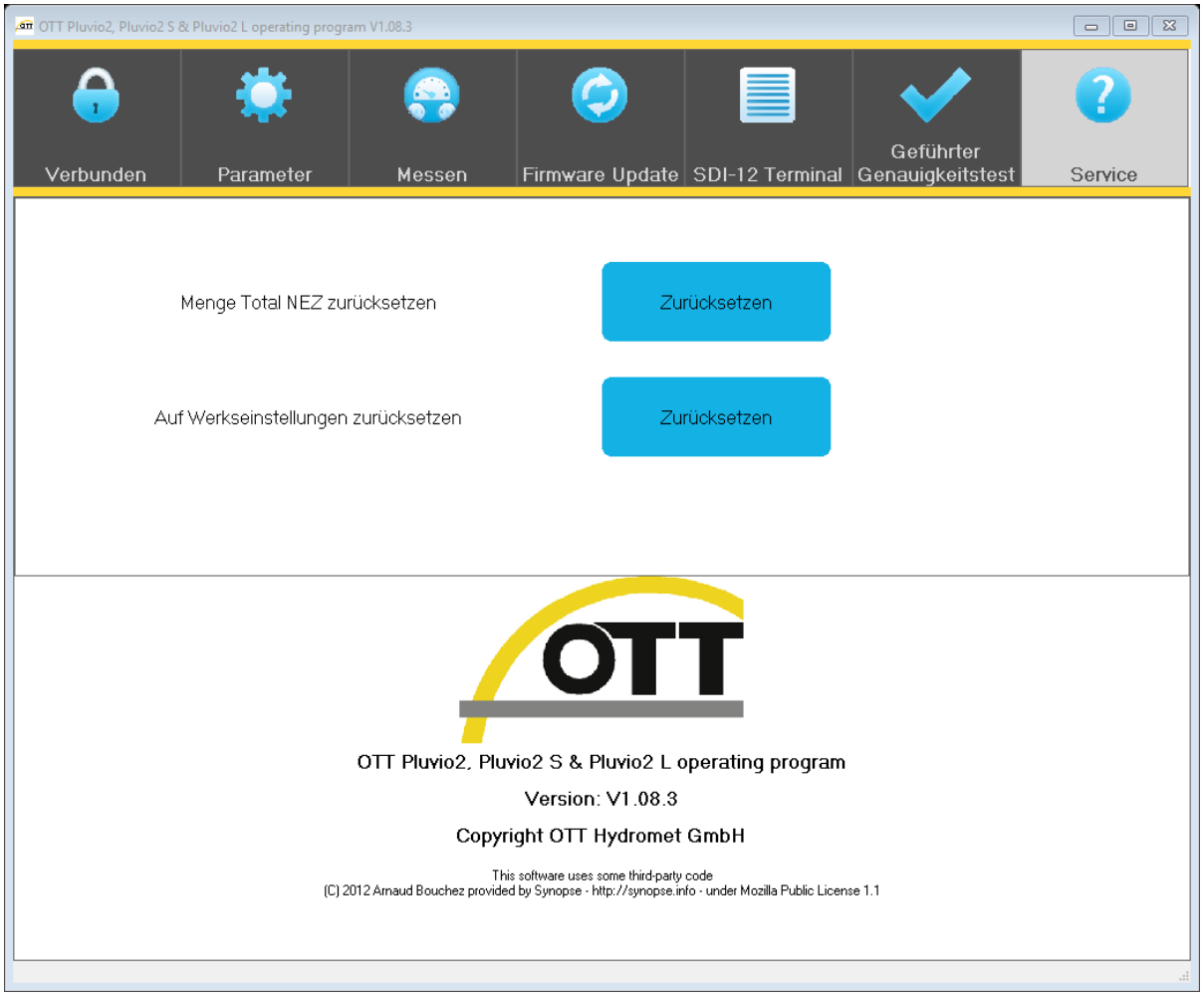
A list of the most important commands can be found in the OTT Pluvio² user manual.

- Guided accuracy test
  - Step-by-step execution of an accuracy test

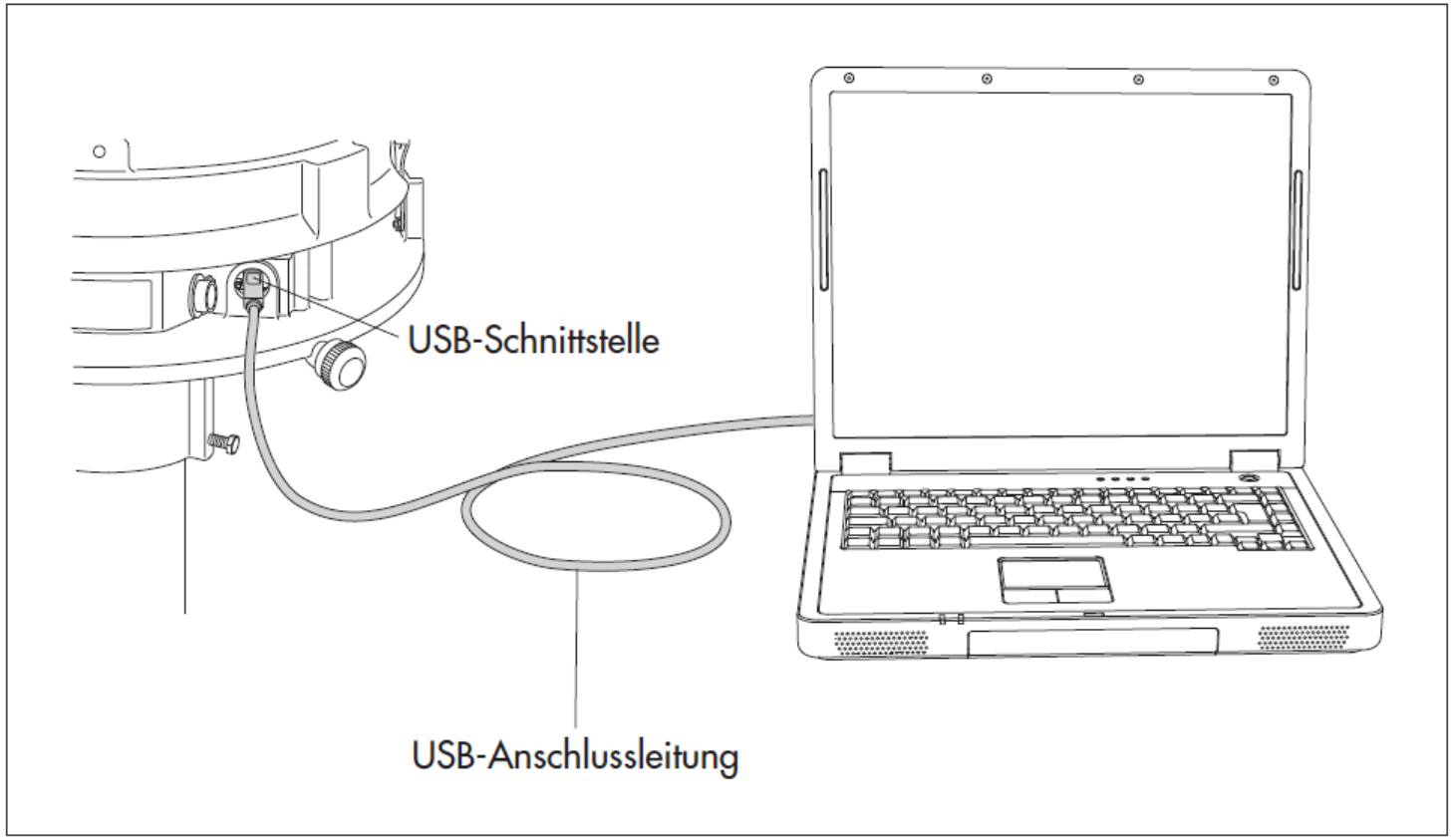


PLUVIO² OPERATING SOFTWARE

- Service
  - Reset „amount total NEZ“
  - Reset Pluvio² to factory settings
  - Info about software version



PLUVIO² TO PC/LAPTOP

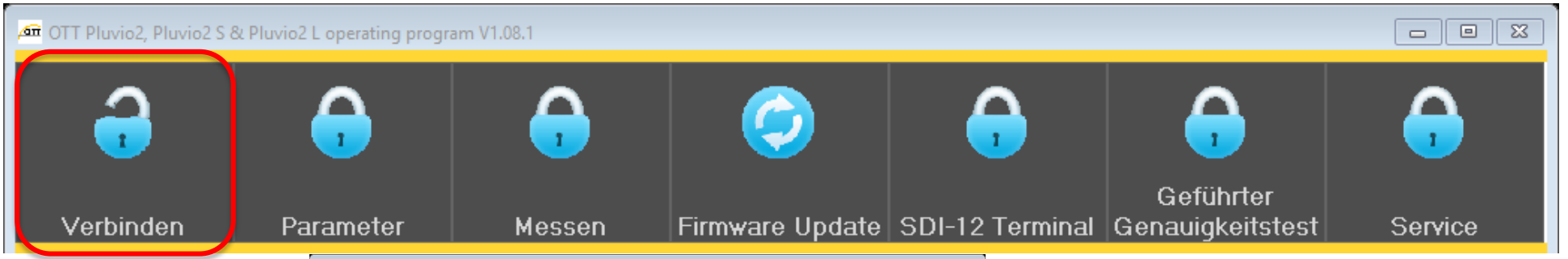


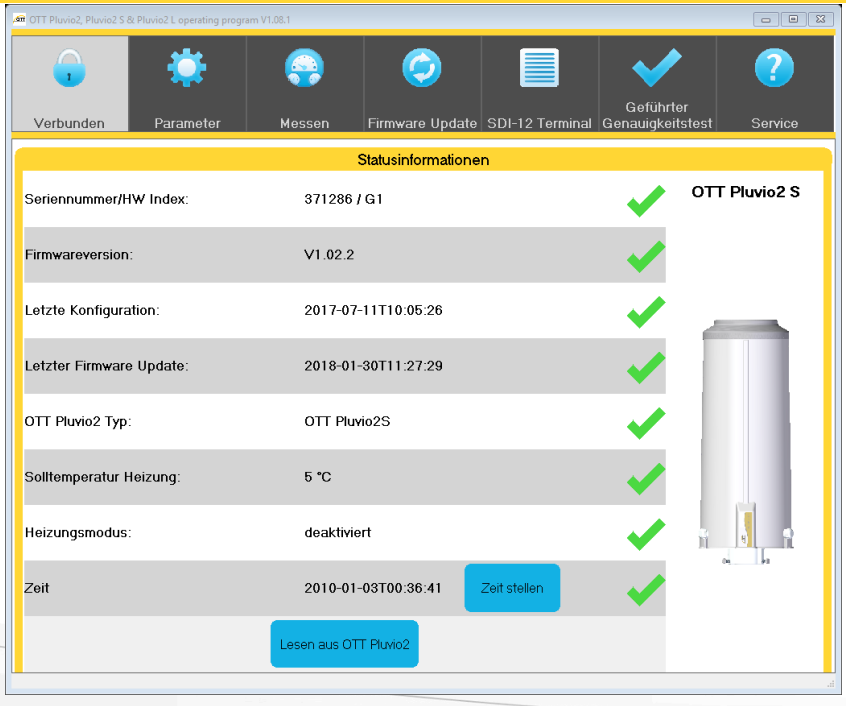
- Setup USB connection between Pluvio² and PC/Laptop aufbauen
- Pluvio² is now powered through the USB interface.

SETUP PLUVIO² FOR SDI-12

Start operating software “Pluvio²Param”

- Choose “connect” at the home screen



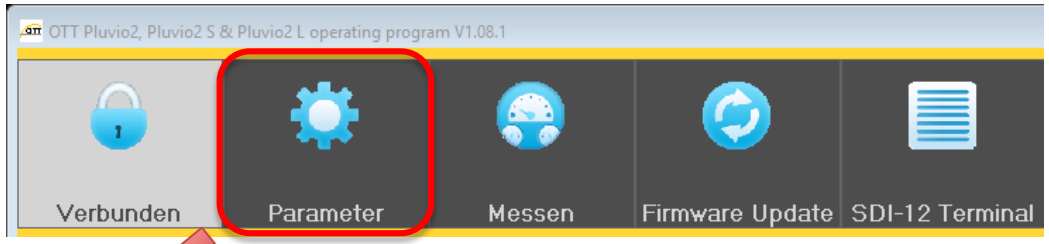


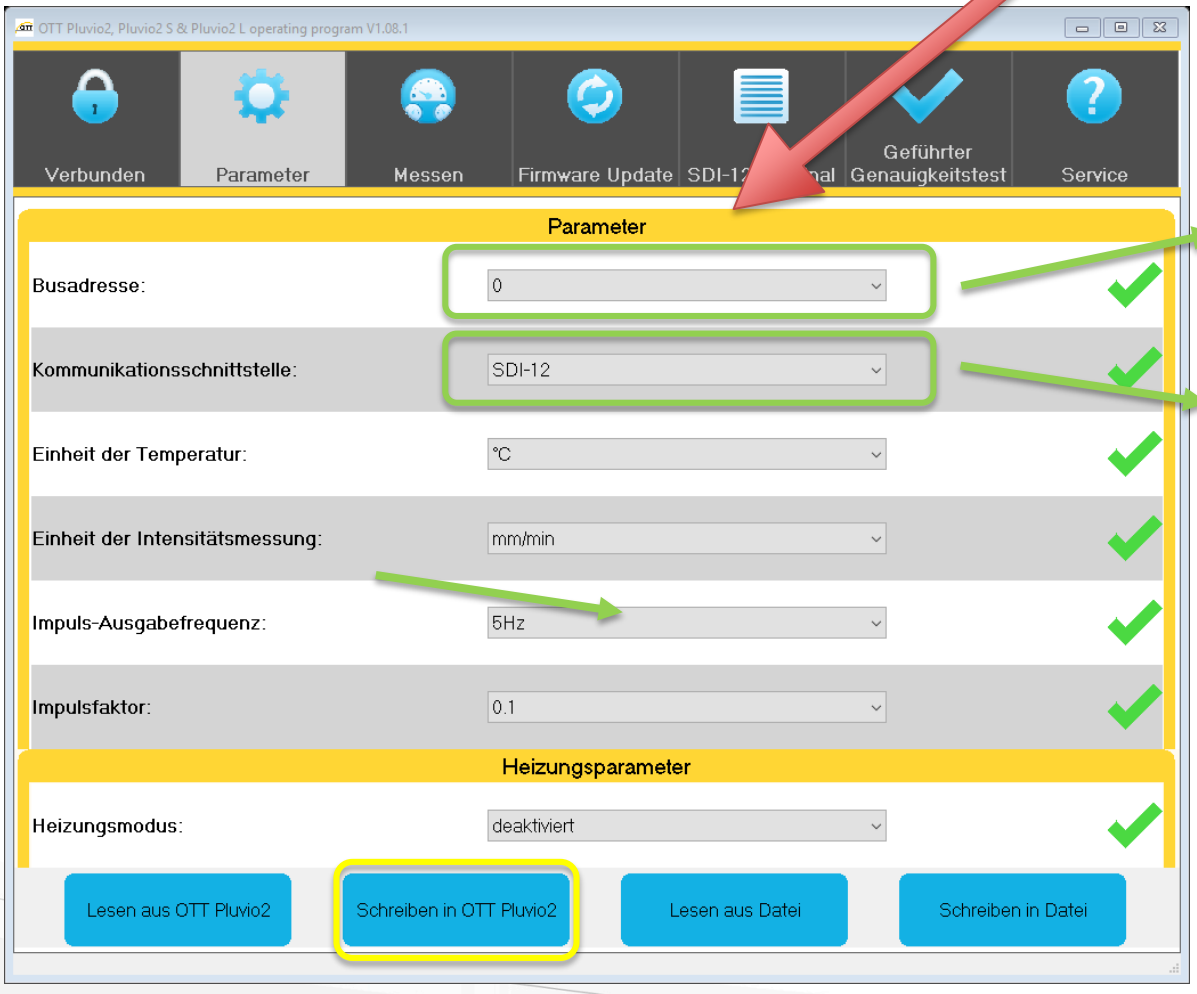
The status info of the connected Pluvio² appear.

Moreover, the already mentioned menue items can be chosen now.

SETUP PLUVIO² FOR SDI-12

- Choose “parameter”





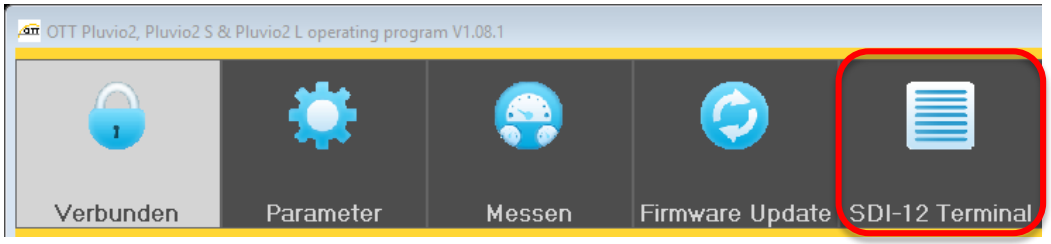
- The default bus address is 0
- If several sensors are connected to a bus, different addresses must be assigned for each sensor.

- The communication interface is set to SDI-12 at the factory.
- A conversion to RS485 is necessary, e.g. for long cable lengths.

Install the parameters in the Pluvio

SETUP PLUVIO² FOR SDI-12

- Choose “SDI-12 Terminal”

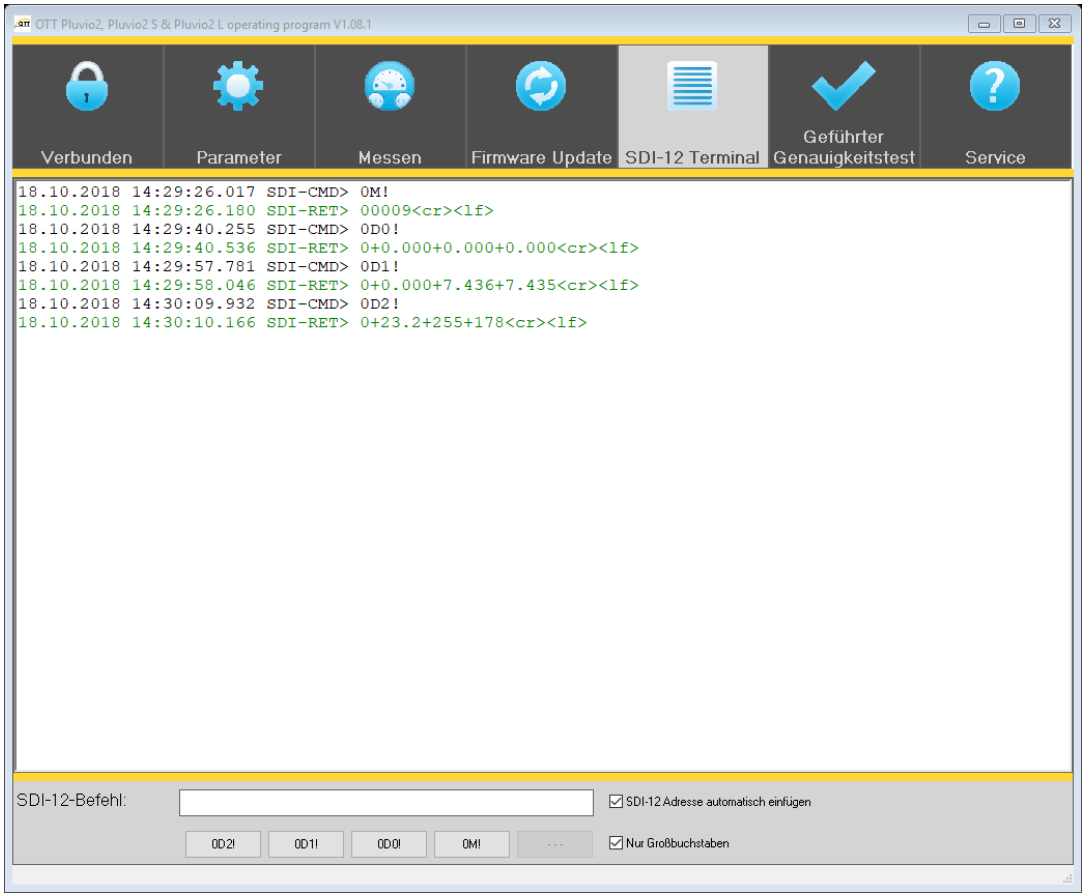


SDI-12 **Address**

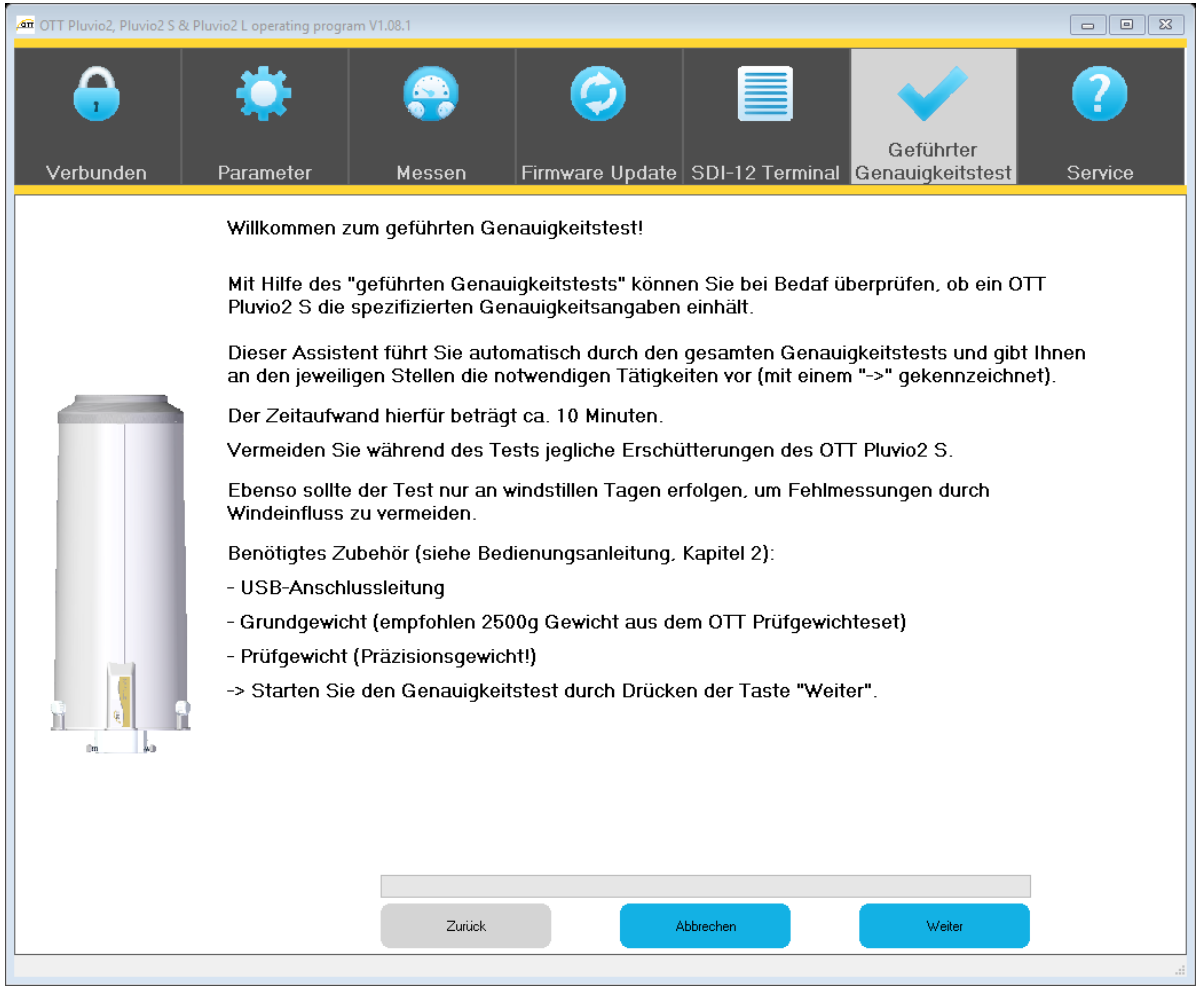
- Can also be changed with SDI-12 command 0A2! from 0 to 2 (or any other number or letter; it’s case sensitive).

SDI-12 **number of parameters**

- With the 0M! command, 9 values can be queried (3 with 0M1!). The "Concurrent Mode" (0C!) makes it possible to perform a simultaneous measurement with several sensors on one bus line.
- With aD0! ... aD2! The measured values can be displayed.
- Each command aM! or aC! resets the measured values "Quantity EZ-NEZ" and "Quantity NEZ" accumulated in the Pluvio to zero!



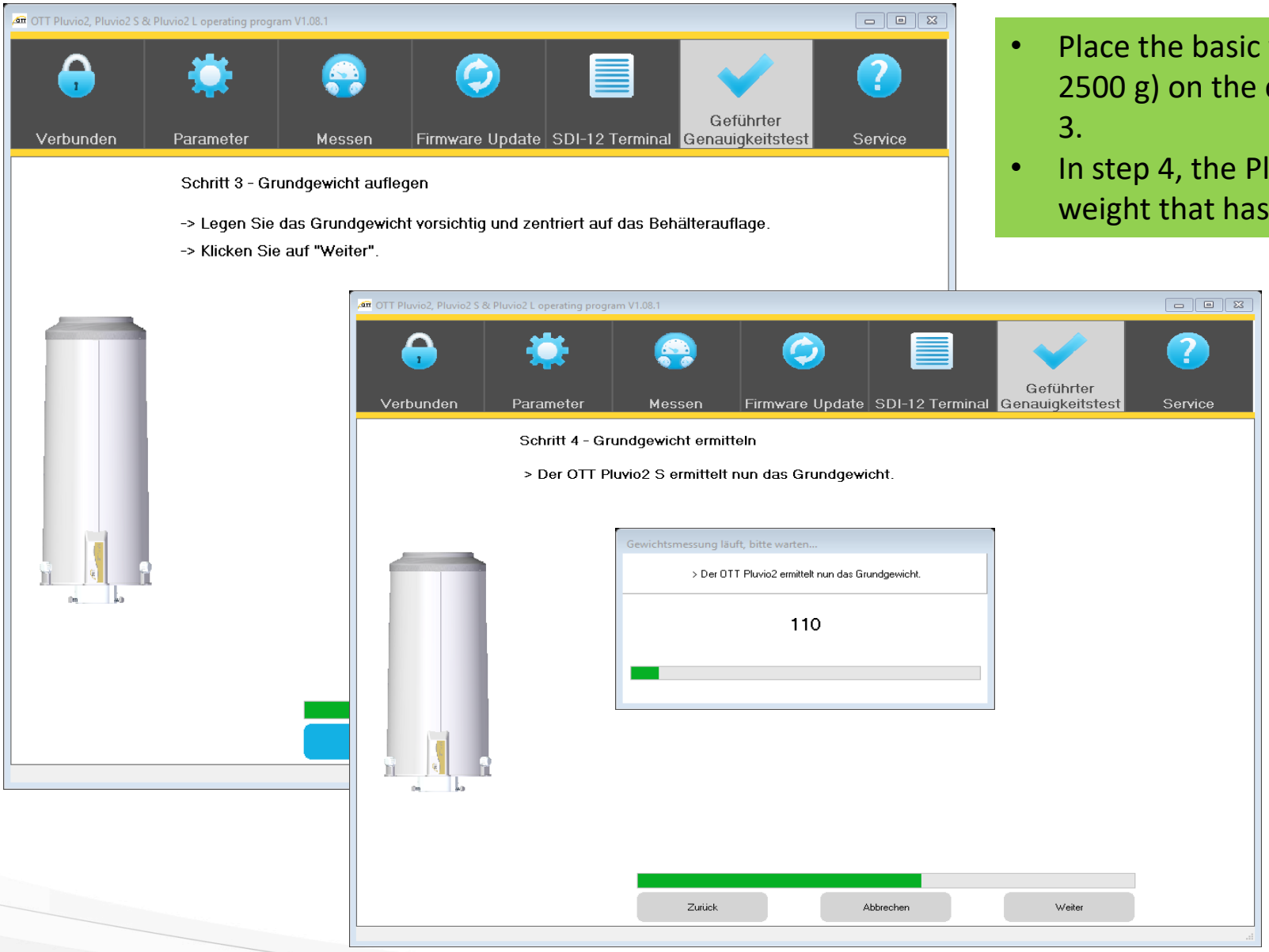
GUIDED ACCURACY TEST



Summary:

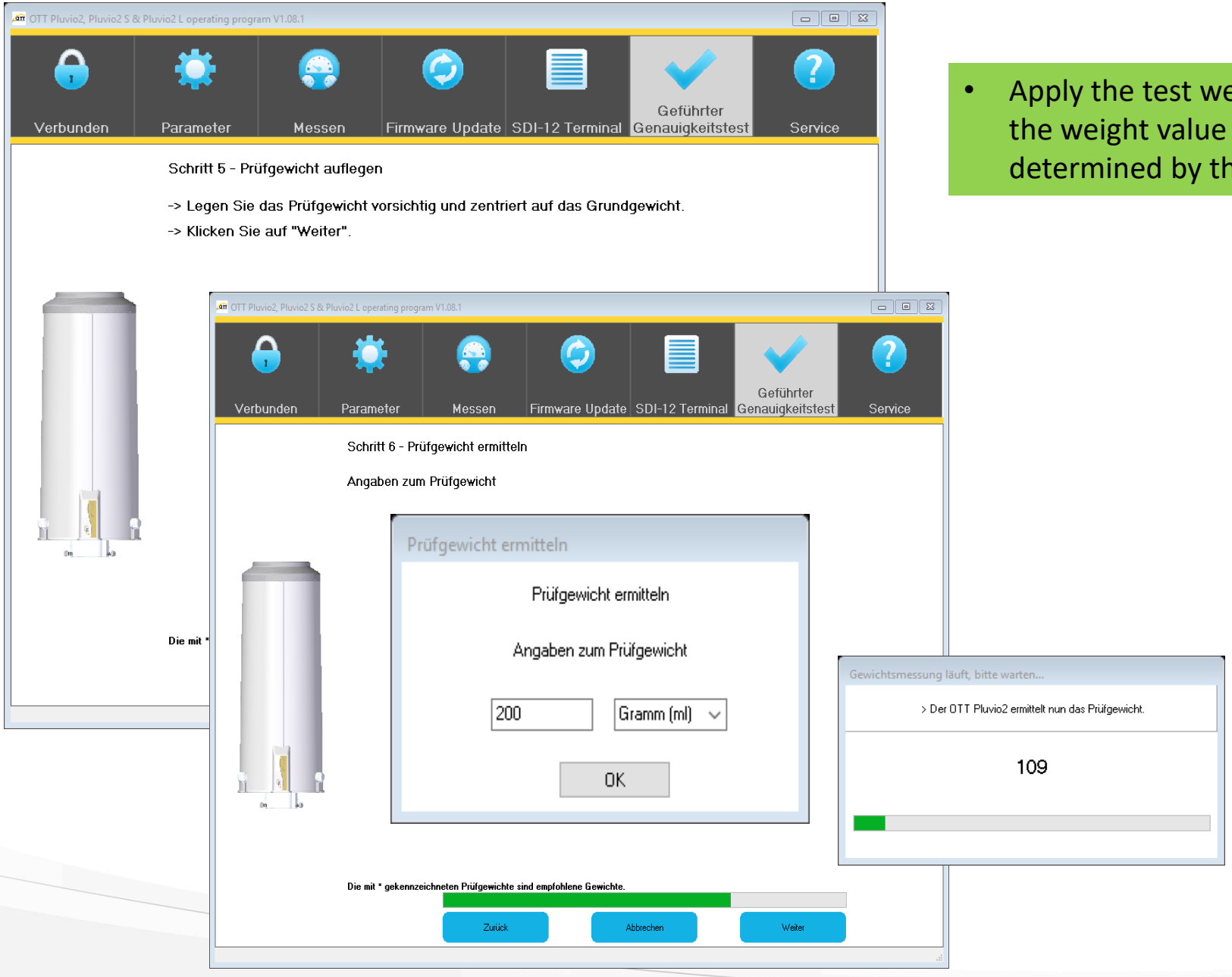
- Read status information
- Place the basic weight on the container support
- Pluvio² determines the weight
- Place the test weight on the balance and enter the weight value
- Pluvio² determines the weight increase
- Evaluation of the test
- Save for measuring point documentation

GUIDED ACCURACY TEST



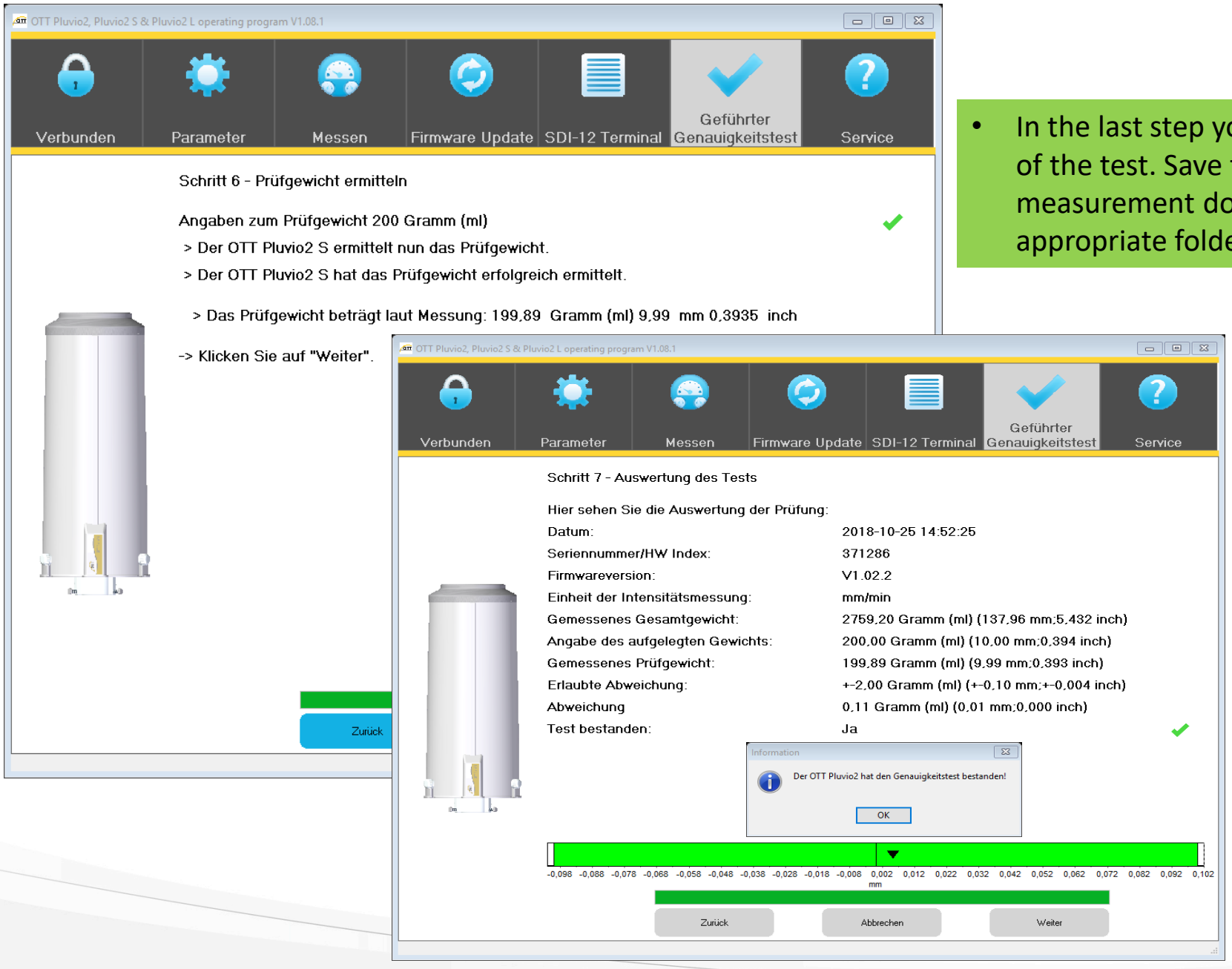
- Place the basic weight (recommended 2500 g) on the container support in step 3.
- In step 4, the Pluvio² determines the weight that has just been inserted.

GUIDED ACCURACY TEST



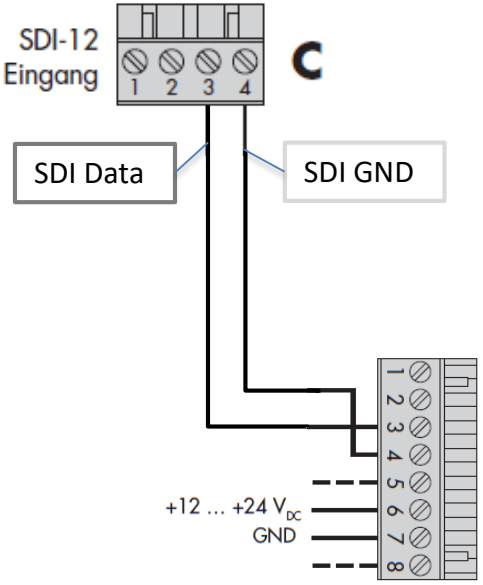
- Apply the test weight in step 5 and enter the weight value in step 6. This is then determined by the Pluvio².

GUIDED ACCURACY TEST



- In the last step you can see the evaluation of the test. Save the created measurement documentation file in the appropriate folder.

CONNECT PLUVIO² TO NETDL VIA SDI-12



Connection of Pluvio²S and Pluvio²L identical

For connection during operation with heating, please see instructions!

OTT Pluvio² S

OR

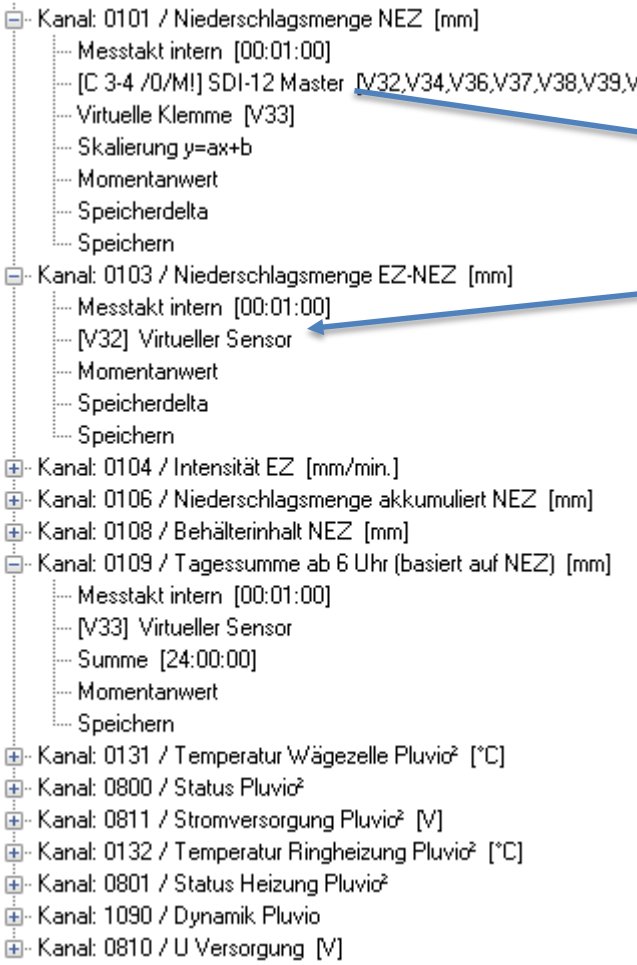
OTT Pluvio² L

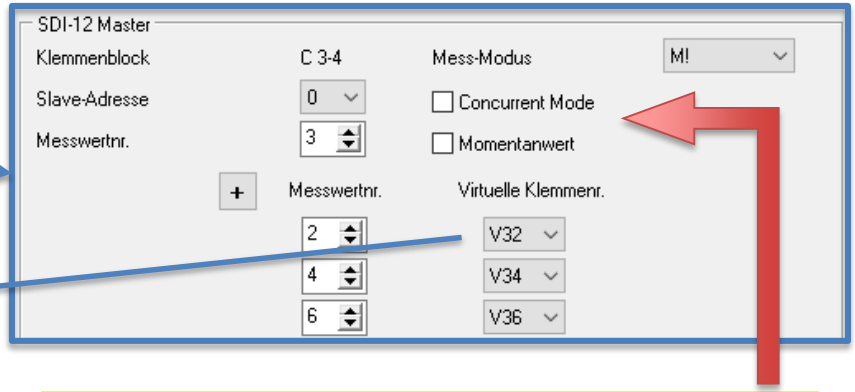
CONNECT PLUVIO² TO NETDL VIA SDI-12

OTT netDL Configuration

- Drag and drop the **template** for OTT Pluvio² S or L from the "Saved Templates" window into the configuration window.
- If necessary, adapt the slave address (bus address of the sensor) in the master channel.
- All other parameters are stored simultaneously in virtual **terminals** (V02, ...) and transmitted to the appropriate channel via the corresponding virtual **sensor** (V02, ...).

Transfer of the precipitation quantity NEZ to channel 0109 to determine the daily total

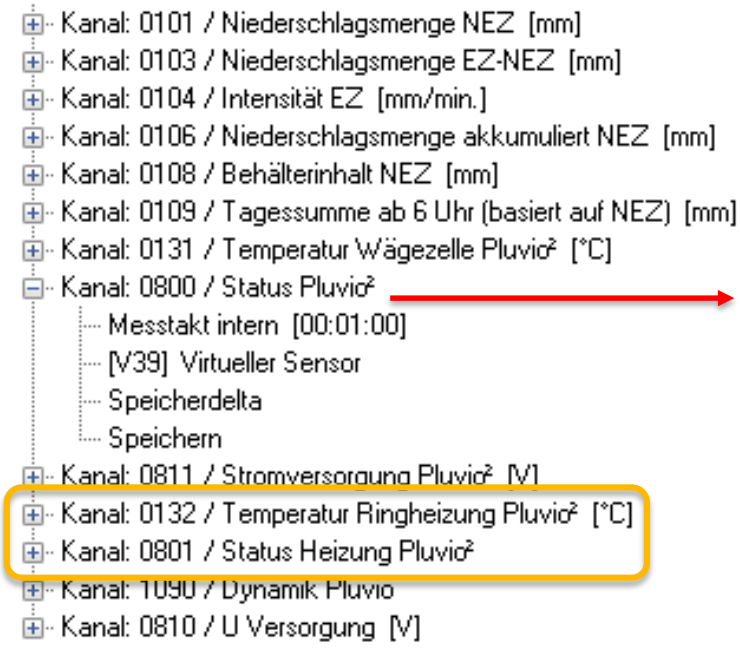




- Deactivate the option „current value“, otherwise the precipitation values aren‘t saved during the retrieval of the current values on the netDL display
- In case the Pluvio² is the only sensor in the bus, it‘s recommended to deactivate the „concurrent mode“ in the channels 101 and 811.

Attention: The SDI-12 interface of the OTT Pluvio² does not work if the sensor is connected to the PC via USB!

CONNECT PLUVIO² TO NETDL VIA SDI-12



If you are using a Pluvio² without ring heater, delete channels 0132 and 0801 by highlighting them and then pressing the "Del" key on your keyboard.

<wert9> – Status

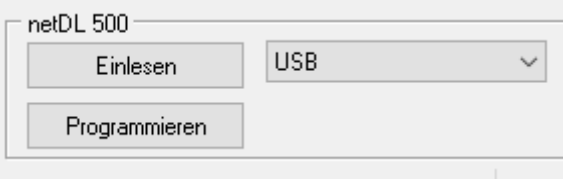
pbbbb

+0 =	Niederschlagssensor arbeitet ordnungsgemäß
+1 =	W: Behälterfüllstand ≥ 80 %
+2 =	W: USB-Schnittstelle ist/war angeschlossen
+4 =	W: Neustart (durch Spannungsausfall)
+8 =	W: Neustart (durch Firmware)
+16 =	W: Gewichtsveränderung unzulässig
+32 =	W: Versorgungsspannung < 7 V
+64 =	A: Gewichtsmessung instabil
+128 =	A: Gewichtsmessung fehlerhaft
+256 =	A: Gewicht kleiner Minimum
+512 =	A: Gewicht größer Maximum
+1024 =	A: Gerätekalibrierung fehlt

W = Warnung; A = Alarm.
Gibt der OTT Pluvio² S andere, als hier aufgeführte Werte aus, sind gleichzeitig mehrere Ereignisse aufgetreten. Die einzelnen Werte werden in diesem Fall addiert. Beispiel: „+34" → Summe aus Warnung „+2" und „+32".
Die ausgegebenen Statusinformationen werden – vorausgesetzt die Ursache ist beseitigt – mit dem nächsten Aufruf des Kommandos **aM!** zurückgesetzt.

- When the tank level reaches 80%, the value of channel "0800 / Status Pluvio²" will change (from 0 to 1).
- A full collection bucket affects the accuracy of the measurements. Therefore, please empty the container in a timely manner.

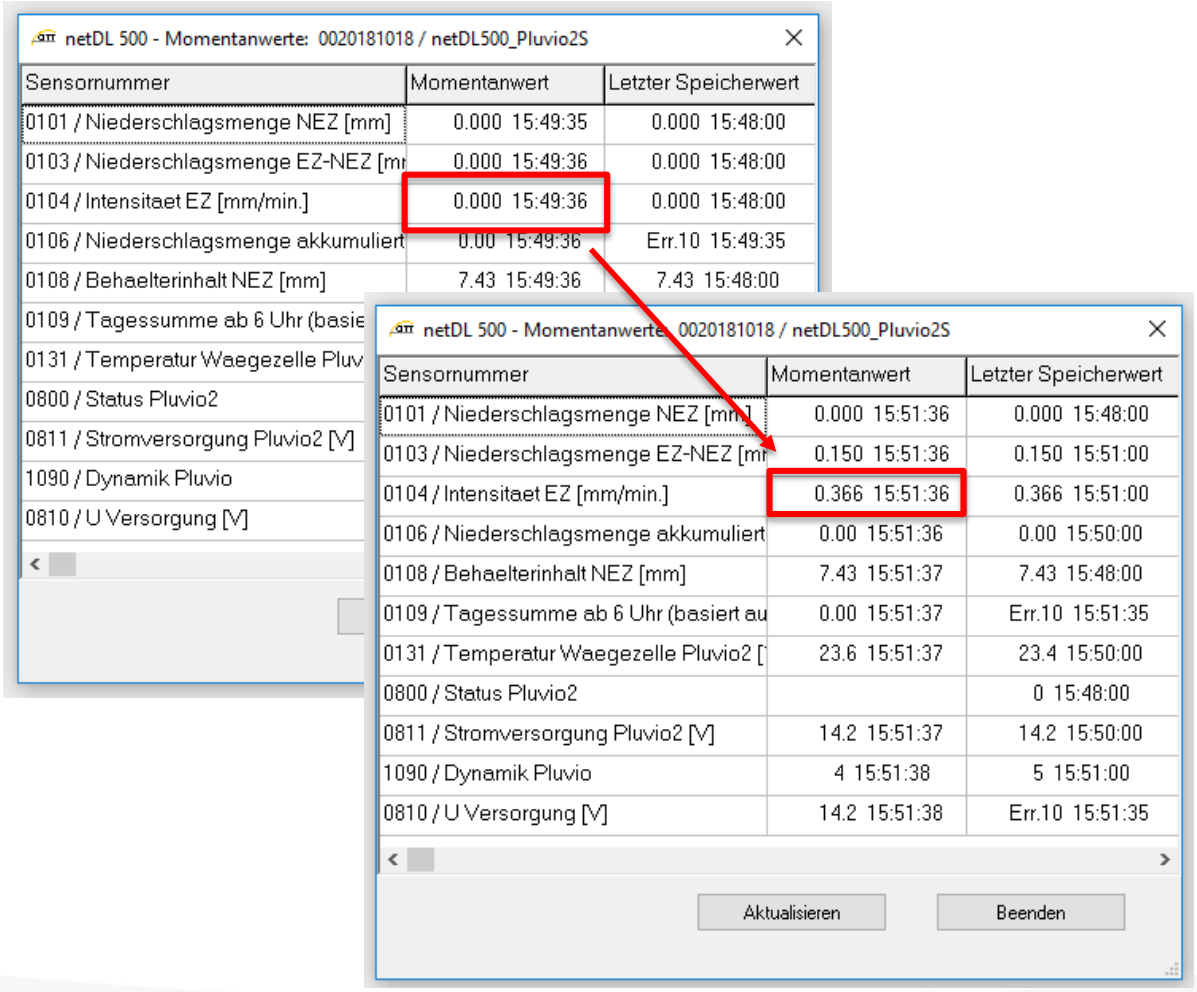
CONNECT PLUVIO² TO NETDL VIA SDI-12



Implement the configuration in the OTT netDL

Now perform a short test by using the current values function in the operating program:

- At the beginning, zero values for the intensity EZ should be displayed.
- Now take a 1€ coin and put it carefully into the collecting container of the Pluvio².
- After updating the measured values (after one minute), corresponding precipitation values should be displayed.



IF YOU NEED FURTHER INFORMATION, PLEASE CONTACT HYDRO SERVICE TEAM.

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