

SMART FLOW

Logger Installation Process





Tool Checklist

- Pulse Counter (Link Below)
- SMART FLOW Logger
- Screw Drivers
- Electric Snips
- Block Connectors or Connector Gels.
- Pulse splitter (Link Below)
- Cable Ties

SMART FLOW logger



SAFETY



A1. SAFETY CONDITIONS

With the help of icons shown below we have highlighted important information regarding safety rules and important functionalities of the device.



Important information about safety rules or significant device feature



Important information about device usage

Directive WEEE 2012/19/UE

Utilize the package at the end of usage period in proper recycling company.

Do not dump the product with normal garbage.

Do not burn the product.



Usage of the device is permitted only in areas, where GSM modem will not interfere with other equipment, i.e. medical instruments.



Do not install the device in vicinity of strong electric and magnetic field.



Always use the latest revision of this documentation, which can be obtained from the manufacturer. Please pay particular attention if this documentation can be applied to the current device version, including firmware version and series.



Depending on the design of the device, the housing provides dust proofness and protection against the effects of continuous immersion (protection class IP68).

STEP 1



Understanding your installation Type

- Confirm the water meter type you are making smart.
- Is the water meter already connected to an existing third-party logger? If so, a splitter is required. (Link below)
- If your water meter has a pulse output cable not already connected to another logger, the meter will be wired directly to your SMART FLOW logger.



STEP 1

Understanding your installation Type

1. Water meter example to be connected directly to SMART FLOW logger.



2. Example water meter connected through a splitter



Splitter wiring example for all meters which require no power:

<https://www.enica.co.uk/metering-products-1/standard-pulse-splitter>

Installation Procedure – Pulse-Splitter

Note: The standard version of the pulse splitter is not waterproof and is not suitable for use in wet environments such as water meter pits.

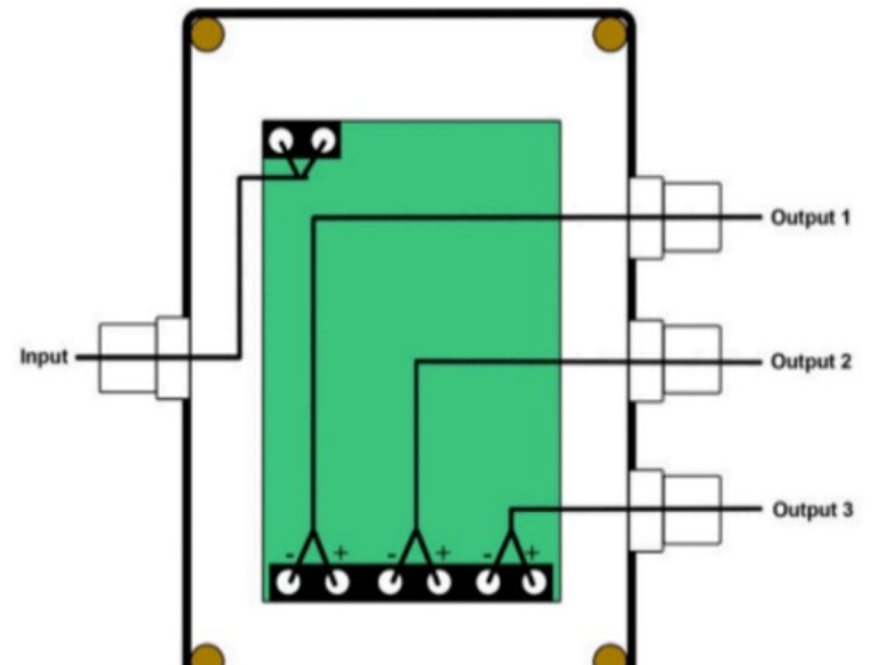
Step 1: Open the enclosure.

Step 2: Wire the pulse input (coming from the utility meter) to the terminals labelled INPUT. Please observe polarity if applicable.

Step 3: Wire the 1st datalogger to Output 1. Please observe polarity marked + and – on the terminal blocks

Step 4: Wire the 2nd and 3rd dataloggers to Output 2 and 3 respectively. Please observe polarity marked + and – on the terminal blocks

Step 5: Close the enclosure using the screws provided. Mount the Pulse-Splitter in a suitable location.



STEP 2



Confirm the meter and pulse are working

- Before wiring your water meter to your logger, please confirm water flow via your pulse counter.
- Simply connect the pulse and ground cable from your water meter to the Pulse counter. Ports 1 and 6.
- Now run water through the meter.
- Always check the water meter specification to confirm the Pulse and Ground colors. The cable colors will not always match the SMART FLOW logger.
- The purpose of turning the water on is to confirm the following:
 1. The water meter is spinning and recording correctly.
 2. It is providing a pulse output.

Note: In some cases, you may have to run the water for 20 minutes to get a reading via your counter and meter as the ratio for the water meter might be set at 100 liters to 1 pulse.

Once you have confirmed Flow via the Pulse counter, move to the next step.



STEP 2

Confirm the meter and pulse are working.

Pulse is connected to port 1.
Ground is connected to port 6.



Once you have confirmed a pulse reading on the counter display, like below, you can now connect to the SMART FLOW logger.



STEP 3



Now connect the water meter to your logger.

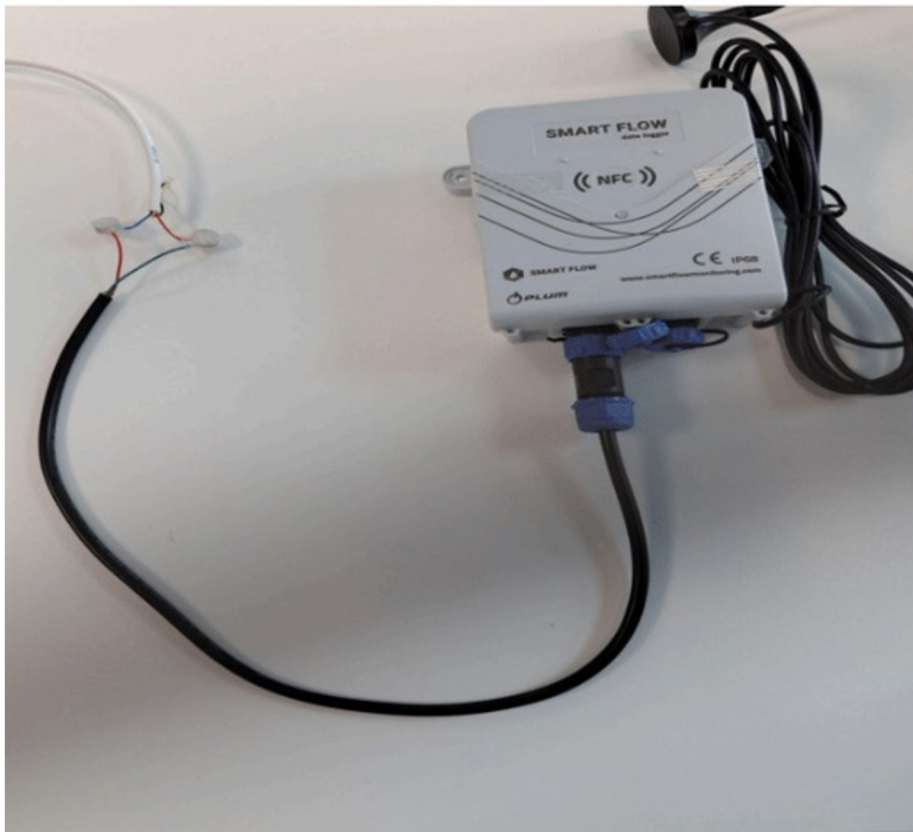
- Remove the pulse counter and then connect the Pulse and Ground on your water meter to the Pulse and Ground on your SMART FLOW Logger.
- With the SMART FLOW logger **Pulse is Red** and **Ground is Green**.
- With a Bmeter PL3 Module **White is Pulse** and **Brown is Ground**.

Example Below: SMART FLOW logger wired to a water meter.

Note: The colors are not always the same for each water meter. They are wired as per the specification for each water meter type.



STEP 3



SMART FLOW logger:

Red is pulse and Green is Ground



STEP 3

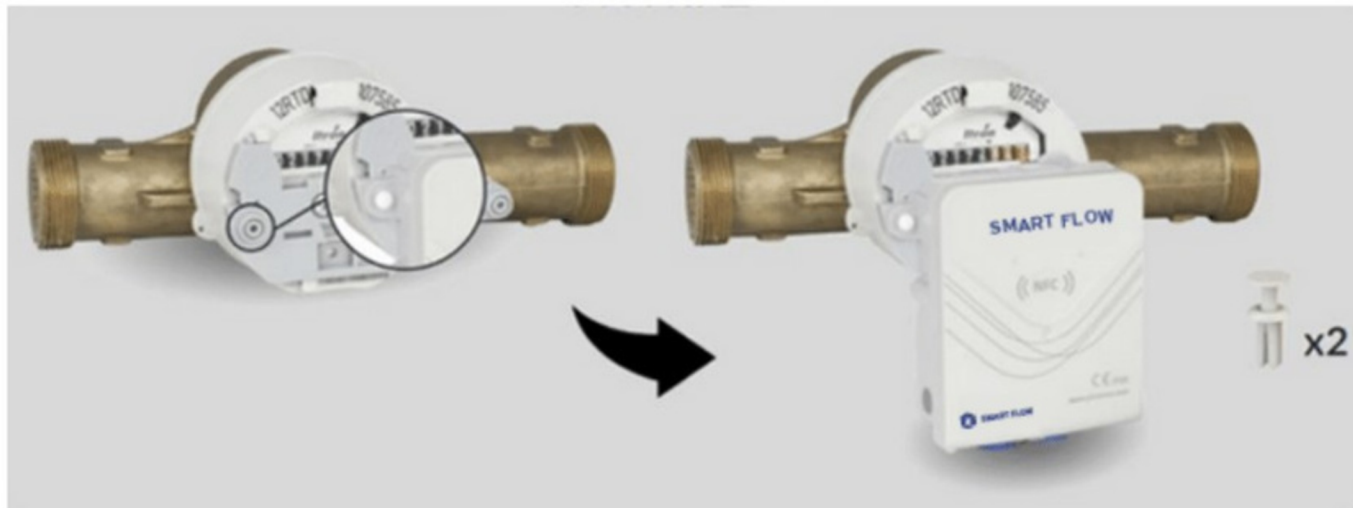


For installations with no wiring required:

The SMART FLOW logger can connect directly to the following water meters such as:

- **Itron Aquadis and Woltex:** <https://www.mwatechnology.com/products/itron-aquadis-cold-water-meters-20mm-40mm/>

Simply connect the SMART FLOW water logger to the face of the meter using the bracket supplied.



STEP 4



Confirm end user set up (If new Customer)

- Once your SMART FLOW device is installed, recording flow, and connected to the cloud. Your final step is to register the device and asset with the SMART FLOW monitoring team.
- Simply email **monitoring@smartflowmonitoring.com** with the following information:
 1. Company Name
 2. Device ID (Located on the side of your device)
 3. Install location/address
 4. Type of asset e.g: Commercial Real Estate, Warehouse, Hospitality ect
 5. Users required for the device
 6. Pulse ratio for the meter
 7. Photograph of the installation
 8. Photograph of the water meter readings on the meter



Links for materials

Active Splitters:

<https://metersuk.co.uk/products/pulse-splitter-2/>

“These are used for connecting meters which may have different Voltage supply.”

Passive Splitter:

<https://www.enica.co.uk/pulse-splitter>

Pulse Counter:

<https://ie.farnell.com/trumeter/kal-d06/electronic-counter-8-digit-240vac/dp/2816340>

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DUBLIN

OPERATION

E3. INSTALLATION GUIDES



There is a list of things to consider during device installation to avoid problems during its operation. The manufacturer declares the accuracy of measurements, operation time on battery and operation continuity in the GSM network under certain conditions:

- **ANTENNA.** Data logger installed in the well must have an antenna placed as high as possible. Water meter wells are usually under the ground which suppresses the GSM signal. Using an antenna on a long cable or a logger with an extended cable to connect an external antenna reduces the influence of depth. The antenna with a magnetic base allows installation underneath at the bottom of the well lid or at the well flange. It is recommended to secure the antenna cable to prevent it from falling down by attaching it with a cable clip to the ladder rung.
- **RANGE AND QUALITY OF GSM NETWORK.** Make sure, that the GSM operator, and SIM card which will be used guarantees a high range in the installation area. There are “blank spaces” on maps where the network signal is very low, unstable or is not present at all. It is recommended to perform a GSM connection test at the installation area with the water meter lid closed.