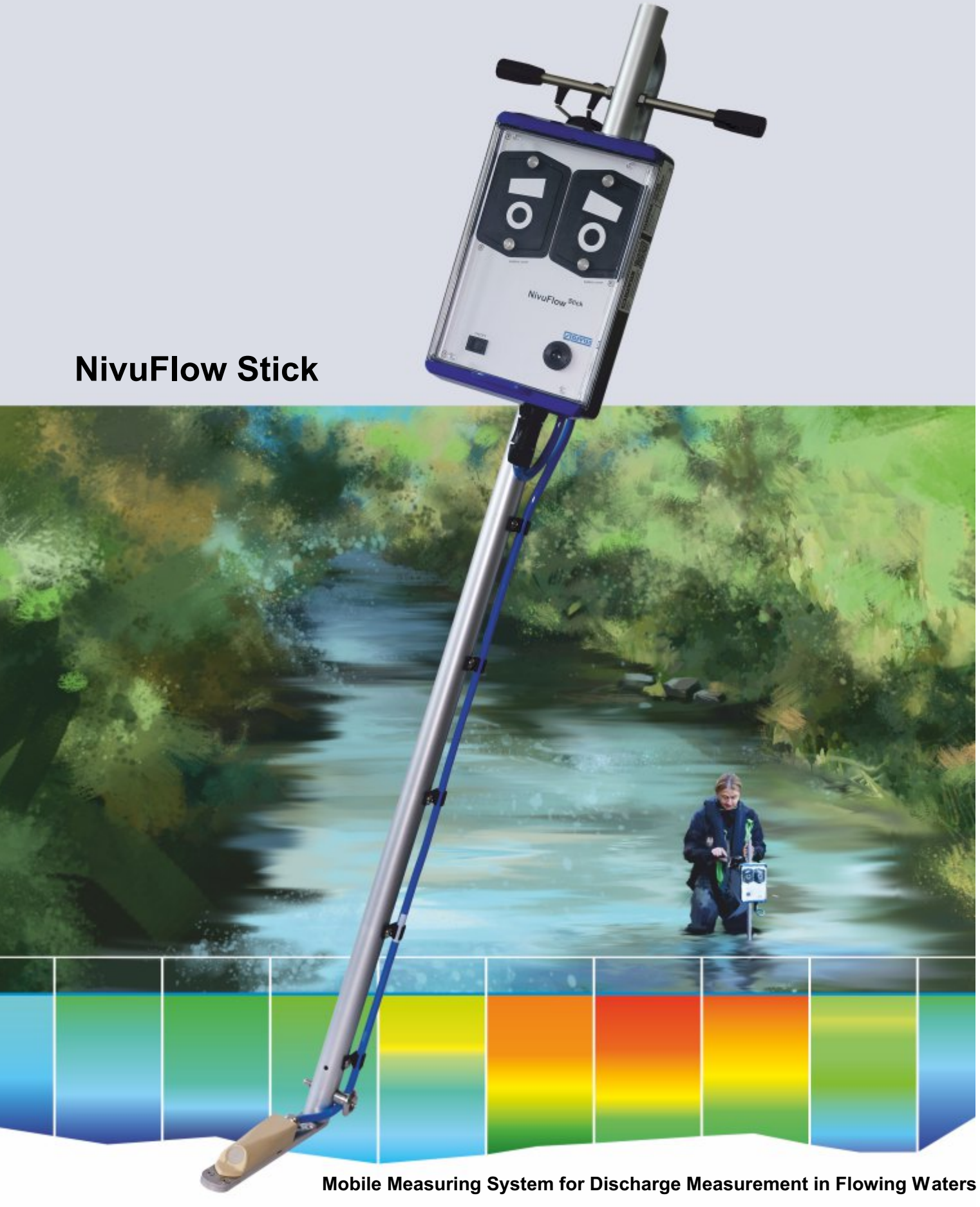
measure analyse optimise

NivuFlow Stick



Mobile Measuring System for Discharge Measurement in Flowing Waters

The NivuFlow Stick

NivuFlow Stick enables reliable and convenient discharge measurements in rivers, streams and canals.

The compact system can be easily transported in any car and is ready for use within seconds. Convenient operation via smartphone or tablet makes measurements simple and intuitive. With a short briefing, even users who have never worked with this device before can immediately perform error-free and reliable measurements. The system contains no wearing parts and is maintenance-free. All components are weight-optimised and compactly attached to the holding rod, which makes handling in the water effortless and safe. The stored data can be read out directly on site via WLAN. Previous measurements can be loaded and visualised. Deviations in the measurement quality are signalled by the system and the quality indication is always stored in the data. The system is unique worldwide in the simplicity of its operation and the speed with which a measurement can be carried out.

- Complete detection of the profile
- Discharge calculation method according to ISO 748:2021: Mean-Section, Mid-Section method
- Integrated hydrostatic level measurement
- Fully automatic calculation of the discharge volume
- WLAN Communication
- Browser-based operation via smartphone/tablet/laptop
- No additional software required
- Memory for 1400 discharge measurements
- Note field with 300 characters
- Self-diagnosis of sensors & measurement quality

NivuFlow Stick - Technical Information

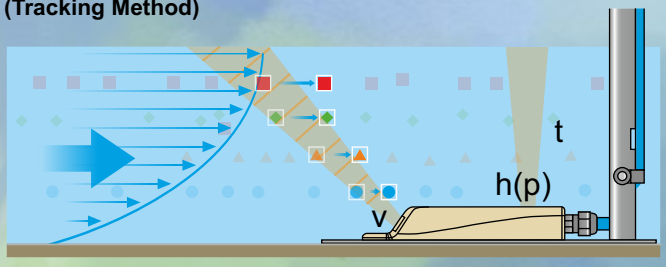
Measurement principle	• Ultrasonic cross correlation (flow velocity) • Hydrostatic (depth measurement)
Velocity measurement	Measurement range -1 m/s...+ 6 m/s
Depth measurement	Measurement range (pressure cell): 0...5 m
Medium depth	Min. 30 mm above sensor Max. immersion depth: up to 100 cm with special accessory
Temperature measurement	Resolution 0.01°C, accuracy 0.1°C
Data memory	1400 discharge measurements
Data transmission	Download via WLAN
Power supply	8xAA standard or rechargeable batteries
Protection	Enclosure: IP67, Sensor: IP68

The complete technical specifications can be found in the instruction manual or on **www.nivus.com**

Measuring with NivuFlow Stick

The flow velocity is measured by the ultrasonic cross correlation measurement principle. Thanks to this technology, the sensor can measure velocities at different water depths with high resolution. This brings a great advantage in terms of measuring time as well as a more accurate determination of the flow velocity curve. Our cross correlation sensors are equipped with a pressure measurement cell for reliable level measurement.

Measuring Principle: Cross Correlation Method (Tracking Method)



Scatterers (particles, minerals or gas inclusions) present in the medium are scanned with ultrasonic impulses and stored as an echo pattern. Further scans take place in the millisecond range. The position of the particles is determined via the transit time of the ultrasound. A comparison of the time-delayed signals allows the flow velocity to be calculated. This results in a profile of the flow velocities from the bottom to the surface.

set up

measure

7 min

done

The menu display guides you quickly and intuitive through the measurement

Graphical representation of the flow curve in each vertical

The NivuFlow Stick in Use

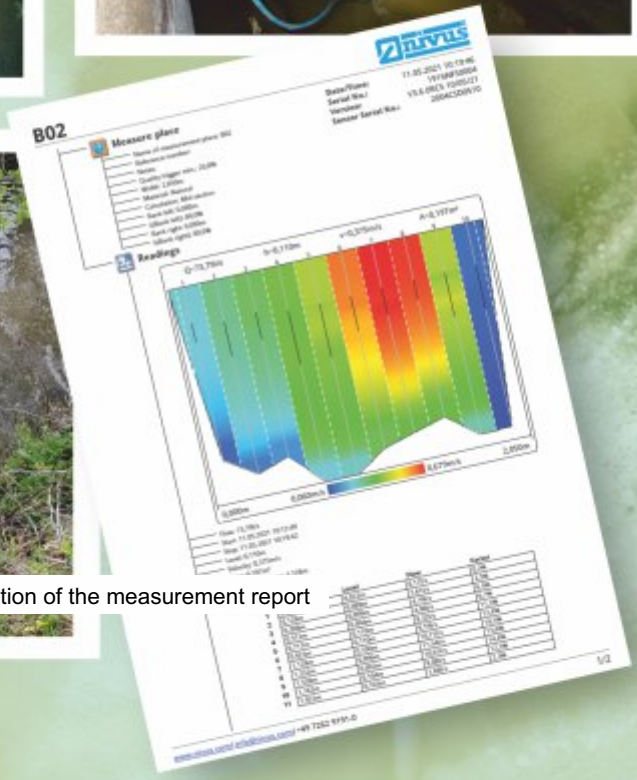
Downstream of the outlet of the hydropower use

Rectangular channel

River with 20 m width

Wastewater in the sewer system

Stream with 2 m width



PDF edition of the measurement report

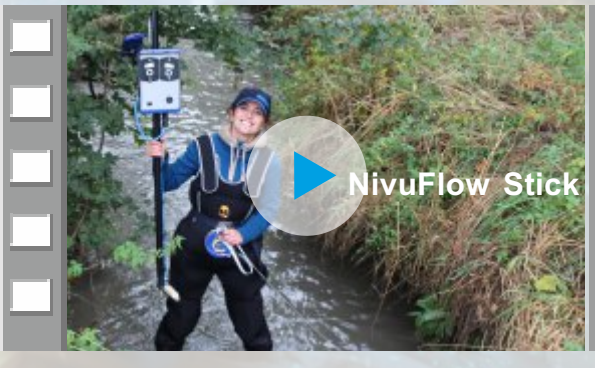
The compact system can also be operated very efficiently with two persons. While one person measures, the second person evaluates the measurement data.

From critical tester to enthusiastic user:

**"Device is very easy and intuitive to use,
quick reliable measurement“**

**Environmental authorities,
Universities,
Water protection authorities**

... and soon you too?



**NivuFlow Stick in use:
www.nivus.com**

The transport case protects the system during tough working conditions.

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