

new

FLOW MEASUREMENT

Ultrasonic
Sensors
NivuFlow Stick



- Complete measurement and recording of velocity profile
- Integrated hydrostatic level measurement
- Automatic calculation of total flow rate
- Wireless communications
- Browser-based operation via smartphone/tablet/laptop
- No additional software needed
- Memory for up to 1400 discharge measurements
- Notepad with 300 characters
- Self-diagnosis of sensor technology & measurement quality



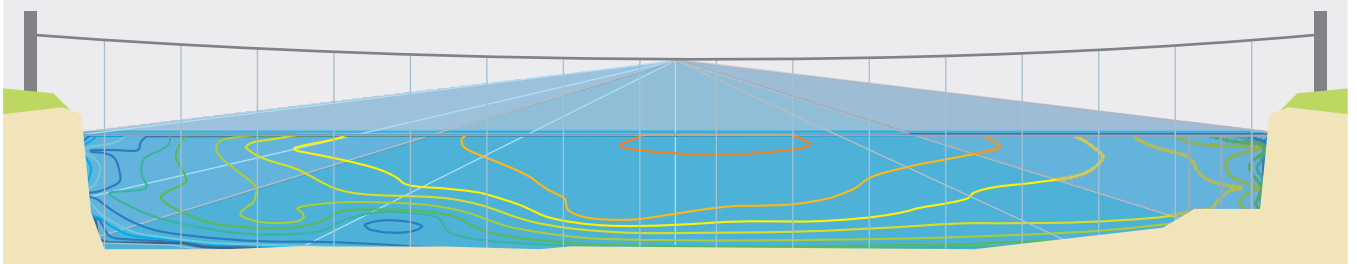
NivuFlow Stick

NivuFlow Stick

The NivuFlow Stick is a mobile measurement system for discharge measurement in watercourses, such as rivers, streams and canals.

The lightweight NivuFlow Stick profiler is easily transportable and ready for use within seconds. Measurements are easy to take using a smartphone or a tablet. Even users who have never used this instrument before can, with a brief introduction to its operation, quickly start making accurate and reliable measurements. The NivuFlow Stick is has no moving parts and is maintenance free. The compact size and weight of this robust instrument has been optimized to

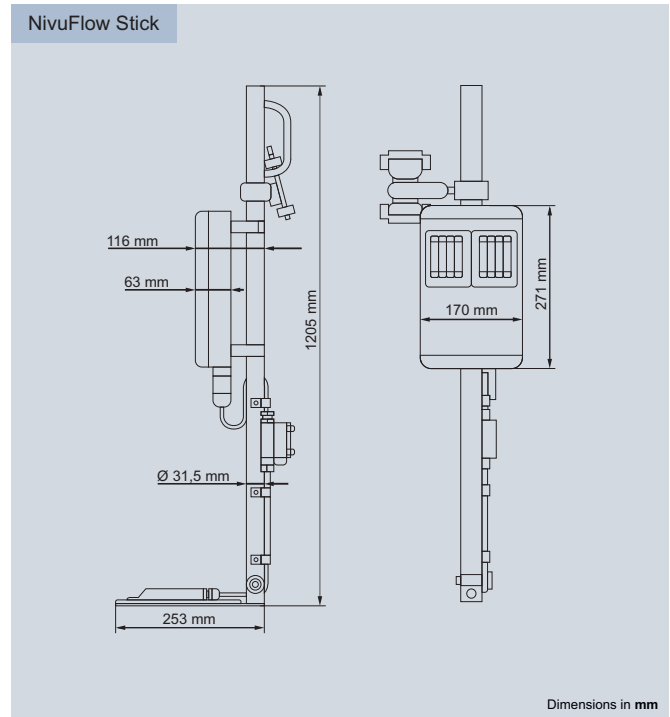
ensure easy and safe handling in water courses. Both live and stored data can be read via a wireless connection whilst still on site, with access to previous measurements also available. Integral data and measurement quality checks are displayed and stored for each measurement to ensure optimum operation every time. The NivuFlow Sticks ease of use and speed of measurement is a global first for manual current meter gauging instrumentation.





Specifications

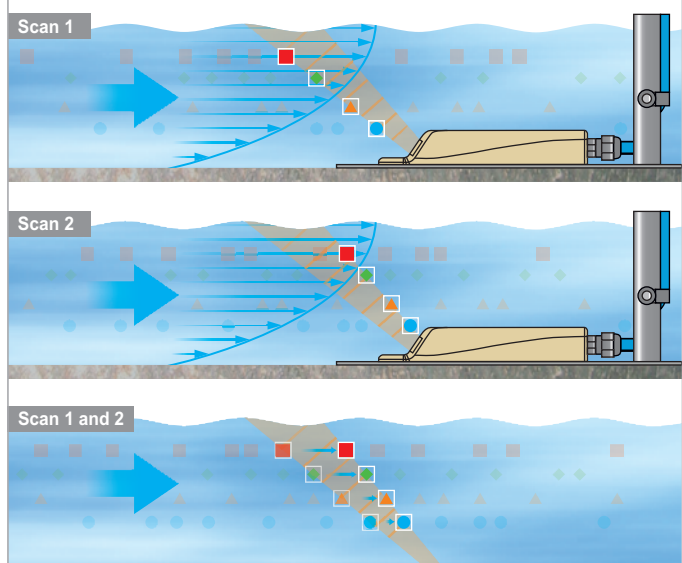
NivuFlow Stick – Technical information	
Principle of measurement	<ul style="list-style-type: none"> • Ultrasound crosscorrelation with real flow profile measurement (flow velocity) • Hydrostatic (depth measurement relative to atmospheric pressure)
Velocity measurement range	-100 cm/s to + 600 cm/s
Velocity resolution	0.001m/s
Velocity accuracy	1%
Depth measurement resolution	1mm
Depth measurement accuracy	< 0.5 % of full scale
Acoustic frequency	1MHz – 3MHz
Minimum water depth for accurate velocity measurement	30 mm
Temperature measurement	resolution 0.1°C, accuracy 0.1°C
Database	1400 discharge measurements
Data transfer	Wireless download
Storage/operating temperature	-30°C-+70°C
Power supply	8xAA batteries or rechargeable battery
Lifetime	12h permanent use (for operation with 2650 mAh batteries)
Protection enclosure	IP67
Protection sensor	IP68



Specifications are subject to change. Rev. 04 - 25.10.2019

Measuring principle

Acoustic reflectors including sediment particles and air bubbles that are present in the water are scanned and with ultrasonic pulses and the reflected receive signals stored as echo patterns. Further ultrasonic scans are performed every few milliseconds and consecutive echo patterns are compared to determine the particulate movements, and thus water velocity, within the measurement window. A full water depth velocity profile is determined by analysing these measurements in up to 16 vertical slices or layers.



For further information, please check the instruction manual or the corporate website www.nivus.com

