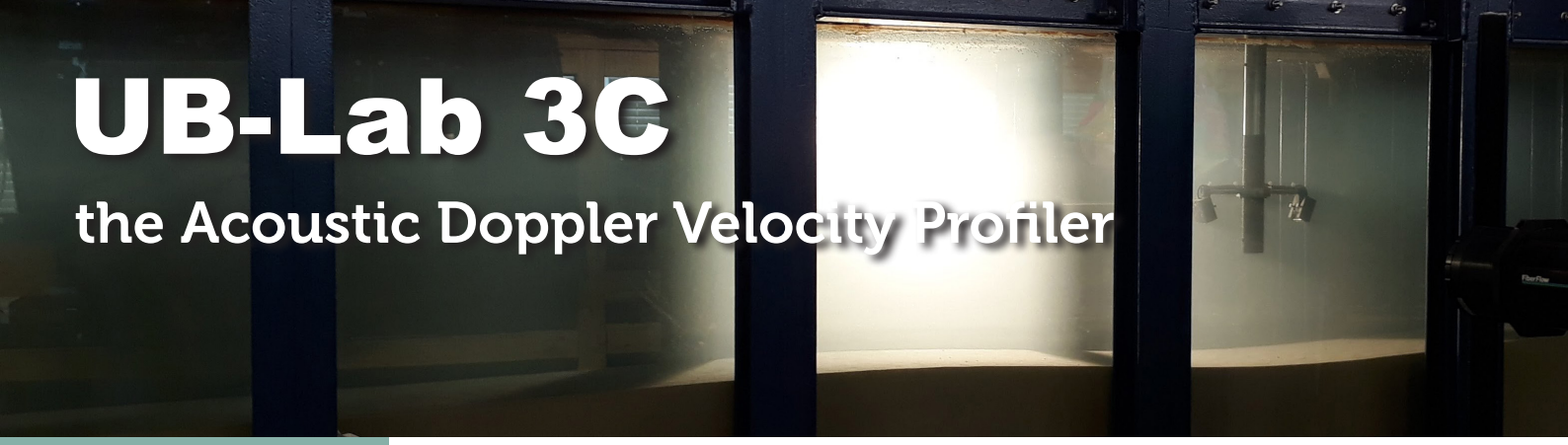


UB-Lab 3C

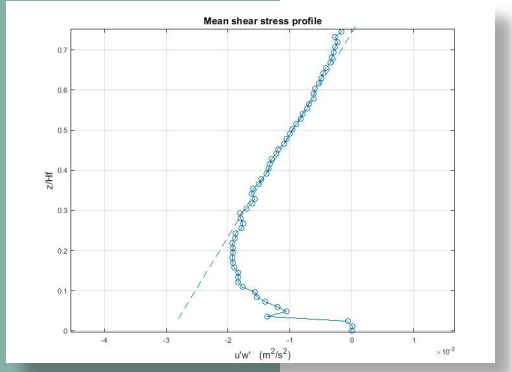
the Acoustic Doppler Velocity Profiler

Three-components Velocity Vector Profiles for Laboratory Setup

Features

- Velocity and backscattered intensity measurement by **high accurate** pulsed coherent Doppler (ADVP)
- Compact and splash-proof enclosure adapted to harsh environments
- Wifi communication
- **Ergonomic** embedded Web interface for setting up, observing instantaneous data and recording
- **Specific** transducer head
- **High quality** measurements
- High spatial and time resolution
- **Three components** velocity measurement by bistatic mode

Applications



- Sediment and suspension monitoring in flume and pipe
- Turbidity current
- **Laboratory** studies
- Turbine and marine current turbine calibration
- **Complex fluids** studies
- CFD input and validation
- **Turbulent** flow studies

Contact

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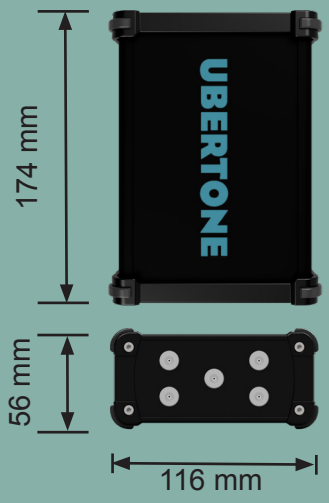
UBERTONE

Technical Specifications

Measurement Performances	
Sampling range	5 to 300 mm
Number of cells	2 to 200
Cell size	2.2 to 20 mm
Velocity range	See Nyquist conditions. Example of average velocity ranges for turbulence intensities of 8% : +/-1.7m/s in front of the emitter to +/- 1.2m/s at 43cm depth, with PRF=1500Hz
Velocity accuracy	0.2 to 1%
Velocity resolution	0.1 ppm (floating point representation with 7 significant digits)
Sampling rates	Up to 64 Hz
Signal processing	Coherent Doppler with phase coding
Number of configs	1
Acoustics	
Measurement modus	Bistatic Pulsed Coherent Doppler
Number of transducer connectors	5 (1 emitter and 4 receivers)
Frequency range	1.0 MHz
Beam width	3.3° half angle
Emission voltage	50 Vpp typical
Physical	
Dimensions	Electronics case: 174 x 116 x 56 mm Transducers head: 209 x 93 x 93 mm
Weight	Electronics case: 0.6 kg
Environment temperature	storage: 0-60°C use: 0-45°C
Data Management	
Communication	HTTP through Wifi 802.11g (Ethernet optional via USB)
Internal data logger	5 GB (more than 1 billion profiles)
File format	binary raw data (extractible in ASCII CSV compatible with Excel, Matlab …)
Velocity	Velocity profile data (relative to acoustic beam directions) per beam and cell
Echo	Backscattered echo RMS amplitude per beam and cell
Data Quality	Profile data quality indicator per receptor and cell
Power	
Input	USB 5 V ; 1.5 A
Consumption	Typical : 6.25 W ; Maximum : 7.5 W
ON/OFF	Button with LED indicator



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