UB-Lab 2C

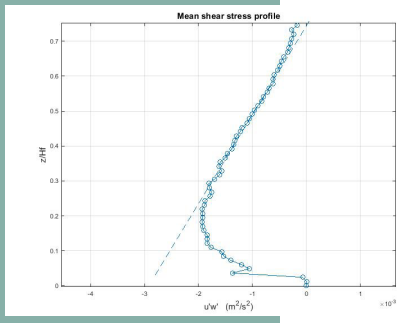
the Acoustic Doppler Velocity Profiler

Two-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
- native Ethernet communication
- **ergonomic** embedded Web interface for setting up, observing instantaneous data and recording
- **high quality** measurements
- high spatial and time resolution
- **two 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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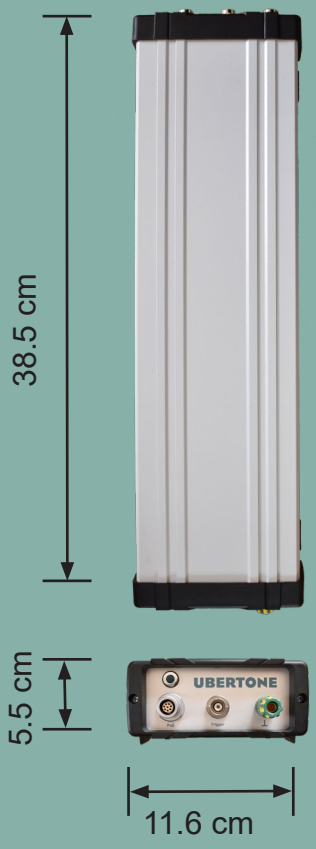
Specifications



Measurement Performances	
Sampling range	5 to 500 mm
Number of cells	2 to 100
Cell size	1.4 to 20 mm
Velocity range	[-2.5 to 2.5] m/s (under Nyquist condition)
Velocity accuracy	0.2 to 1%
Sampling rates	up to 100 Hz
Signal processing	Coherent Doppler with phase coding
Number of configs	5
Trigger IN/OUT	yes
Temperature	BNC connector for PT100 probe
Acoustics	
Measurement modus	bistatic
Number of transducer connectors	5 (1 in emission and 1 or 2 pairs in reception)
Frequency range	0.8 to 1.2 MHz
Emitter beam width	around 3° half angle depending on the emitting frequency
Emission voltage	30/60V
Physical	
Dimensions	5.5 x 11.3 x 38.5 cm
Weight	1.5 kg
Cable	10 m typical (up to 50 m upon request)
Data Management	
Communication	HTTP and TCP-IP protocols through Ethernet
Internal data logger	3 Go (more than 20 000 profiles)
File format	ASCII CSV (compatible with Excel, Matlab …) and binary
Velocity	Velocity profile data (relative to acoustic beam directions) per receptor and cell
Echo	Backscattered echo RMS amplitude per receptor and cell
Data Quality	Profile data quality indicator per receptor and cell
Raw IQ	yes
Power	
Input	110-230V A, 48V POE
Consumption	Maximum 12 VA
ON/OFF LED	yes