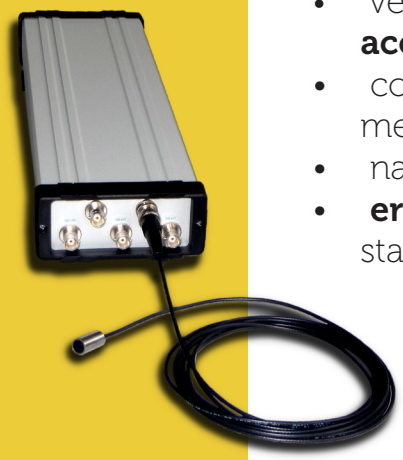
UB-Lab X2

the Expert's Ultrasonic Velocity Profiler

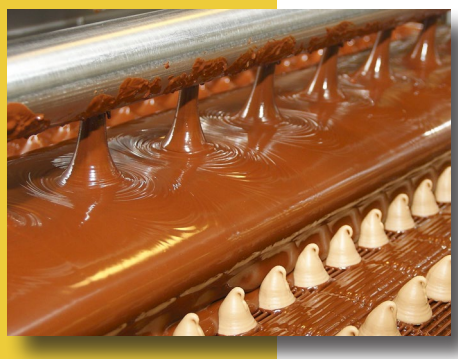
Velocity and Acoustic Turbidity Profiles
for Laboratory Setup and Industrial Pipes

Features



- velocity and backscattered intensity profile measurement by **high accurate** pulsed coherent Doppler (UVP)
- compact and splash-proof enclosure adapted to harsh environments
- native Ethernet communication
- **ergonomic** embedded Web interface for setting up, observing instantaneous data and recording
  - control of a wide variety of external transducers
  - **high quality** measurements
  - high spatial and time resolution
  - wide emission frequency range

Applications



- sediment and suspension monitoring in flume and pipe
- **laboratory** studies
- turbine and marine current turbine calibration
- **complex fluids** studies
- CFD input and validation
- industrial process optimization
- **food engineering** process control
- reactor and tank monitoring

Our devices are available for rent, for lease and for sale.

Contact

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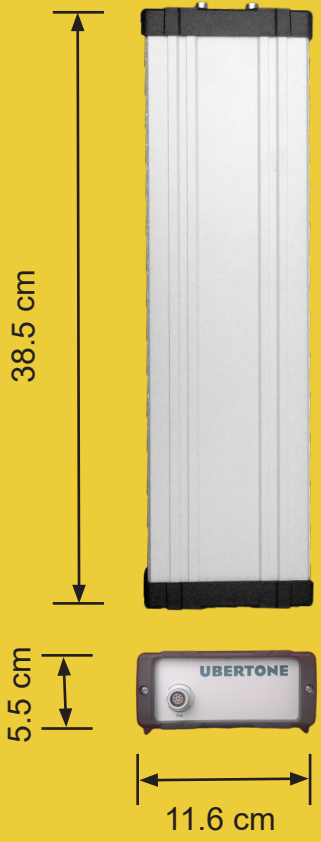
Specifications



Measurement Performances	
Sampling range	0.005 to 4 m
Number of cells	2 to 200
Cell size	0.36 mm to 10 cm
Velocity range	[-4 to 4] 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	12
Temperature	BNC connector for PT100 probe
Acoustics	
Measurement modus	monostatic
Number of transducer connectors	2 for transducers in emission/reception
Frequency range	0.8 to 9.4MHz (allowing particle size spectroscopy)
Beam width	2° to 5° half angle (depending on the transducer and on the emitting frequency)
Emission voltage	30/60V (300/450V upon request)
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 beam and cell
Echo	Backscattered echo RMS amplitude per beam and cell
Turbidity	Acoustic turbidity data per beam and cell
Data Quality	Profile data quality indicator per beam and cell
Raw IQ	yes
Power	
Input	110-230V AC, 48V POE
Consumption	Maximum 12 VA