

# UB-flow

## the high resolution field profiler

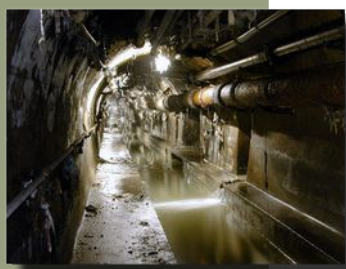
Velocity Profile and Acoustic Turbidity Measurement for Open Channel and Sewer Flow Monitoring

### Features



- ▶ two beams for velocity measurement by **high accurate** pulsed coherent Doppler
- ▶ fully self-contained hydrodynamic probe
- ▶ native Ethernet communication
- ▶ **ergonomic** embedded Web interface for setting up, observing instantaneous data and recording
- ▶ acoustic turbidity measurement by wide-band transducers for suspended sediment load monitoring
  - ▶ option for scientific research : **fast measurements** up to 100 profiles per second
- ▶ **high quality** measurements

### Applications



- ▶ sediment transport in **river**
- ▶ wastewater treatment plant influent and effluent
- ▶ CSO and stormwater flow
- ▶ **sewer** system evaluation surveys
- ▶ CFD input and validation
- ▶ **irrigation** channels & pipes
- ▶ industrial process & discharge

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

### Contact

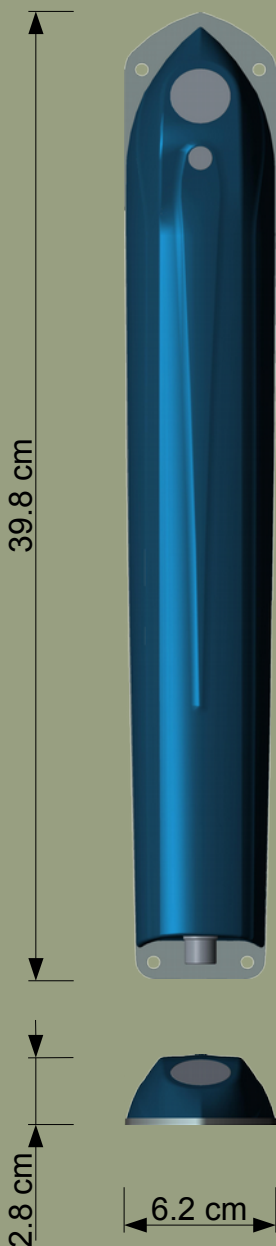


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## Technical specifications



### Measurement Performances

Sampling range	0.03 to 2 m
Number of cells	1 to 200
Cell size	3 mm to 10 cm
Velocity Range	[0 to 0.5] m/s over 2m up to [-0.5 to 3] m/s over 30 cm
Velocity accuracy	0.2 to 1%
Sampling rates	up to 1 Hz (100 Hz optional)
Signal Processing	Coherent Doppler with phase coding
Integrated temperature measurement	

### Acoustics

Number of transducers	2 wide-band high sensitive
Central frequency	1.5 MHz and 3 MHz
Frequency range	1.0 to 4.2 MHz (allowing particle size spectroscopy)
Beam width	4.5° and 3° (at central frequency)

### Physical

Dimensions	2.8 x 6.2 x 39.8 cm
Weight	0.95 kg
Cable	15 m typical (up to 70 m upon request)

### Data Management

Communication	Ethernet, HTTP and TCP-IP protocols
Internal data logger	3 Go (more than 20 000 profiles)
File format	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
Turbidity	Acoustic turbidity data per beam and cell
Data Quality	Profile data quality indicator per beam and cell

### Power

Input	110-230V AC or 12V DC
Consumption	1 to 4 W

Power/Activity/Connexion LED indicator