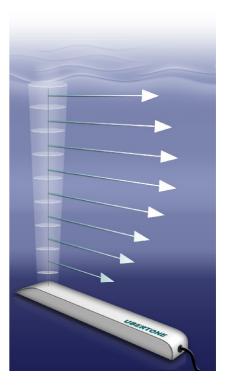
Technical datasheet UB-Flow F156

The ultrasonic UB-Flow F156 profiler from Ubertone is a scientific instrument that measure **velocity** and acoustic **turbidity profiles** at high resolution with multiple frequencies.

The device is fully integrated in an hydrodynamic box connected by a cable that support power and Ethernet communication. It is equipped by 2 transducers placed in the front for a monostatic measurement by a pulsed coherent technique. This technique allow to observe simultaneously a large number of cells along each acoustic beam (profile) and to measure the local projection of the velocity on the beam axis as well as the backscattered acoustic intensity.

The embedded WEB interface allow to fully setup the electonic, to observe instantaneously the data, to record the measurements and parameters and to download the data.





The backscattered acoustic intensity (turbidity) profile at different frequencies allow to evaluate the suspended sediment concentration (for particle size over 30µm). Moreover, the device allow to measure the water height in an open channel flow, or to detect an interface. Useful outdoors as well as in laboratories, this profiler will benefit research groups, design offices, metrology departments and anyone else involved in hydrodynamic process studies, sewer system diagnostics, sediment transport or flow measurements, providing new opportunities and a way of achieving excellence in this field.

Technical specifications

Emission

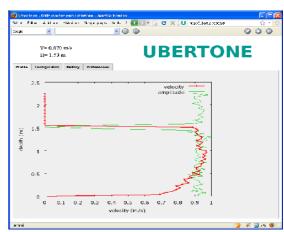
- frequency 1.0 to 7.5 MHz (on 2 transducers)
- pulse length 0,5 us to 1 ms
- · phase coded emission

Reception

- spatial resolution over the beam axis: 2.5 mm
- half-beam angle: 3.5°
- variable adaptive amplification
- typical exploration depth 1.5 m
- maximum number of cells : 62

Measurement

- coherent Doppler technique in real time
- Velocity range : -4 à 4 m/s (under Nyquist condition)
- Integrated temperature measurement
- accuracy: 1% (depending on setup)
- minimum sample interval : 1 s
- Logger capacity: 1.5 Go (around 10000 profiles)



Physical parameters

- dimensions : 3.0 x 6.1 x 43.5 cm
- pressure rating : 20 m

Power Supply

- PoE (IEEE 802.3af norm)
- SELV (IEC 61140)

Provided with a 110-230V adapter (please ask us for battery pack)