SATLAB GEOSOLUTIONS

HydroFlow 600/1200

Acoustic Doppler Current Profiler

HydroFlow 600 / 1200

The HydroFlow series direct-reading Acoustic Doppler Current Profiler (ADCP) is an accurate and easy-to-use current profiling system, which can be deployed on flexible platforms: trimaran, USV, buoys, crewed vessel mountings, and so on. Providing accurate measurements with a 90m/40m range, the HydroFlow 600/1200 can be widely used for monitoring and surveying the discharge of rivers, canals, offshore, and other engineering projects.

Multiple Built-in Sensors

Integrating the gyro, temperature, and tilting sensor, HydroFlow 600/1200 offers mutipule source of infomation for the operation reference.

Long Profiling Range Multiple Cells

600Hz working frequency extends the current measurement range up to 90 meter (Hydro-Flow1200 up to 35m) with maximum 260 cells.

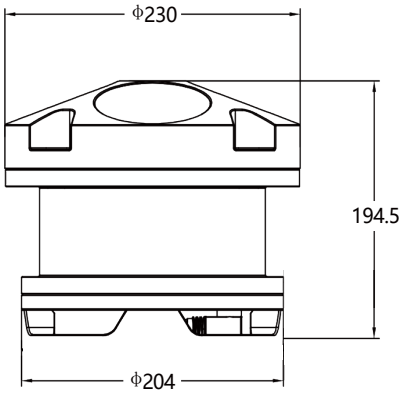
High Precision Current Measurement

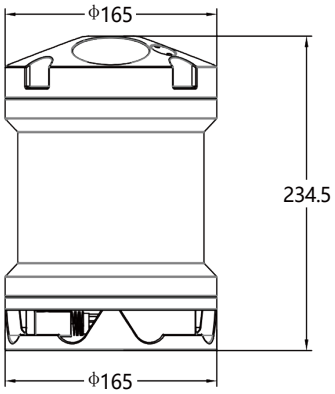
Supported by broadband signal processing technology, the anti-noise level has been improved while the current measurement accuracy can be up to 0.25%±0.25cm/s.

Easy to Use Software

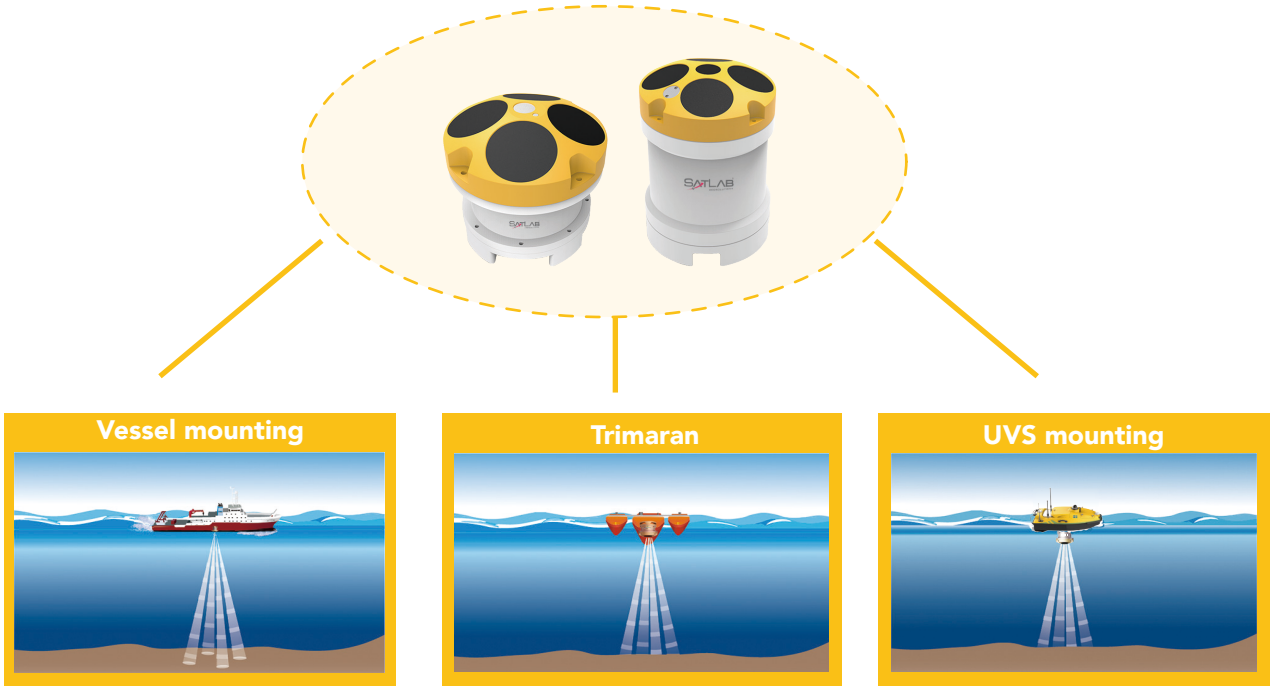
Clear software working flow and UI lower the learning curve, making it easy to use.

Dimensions

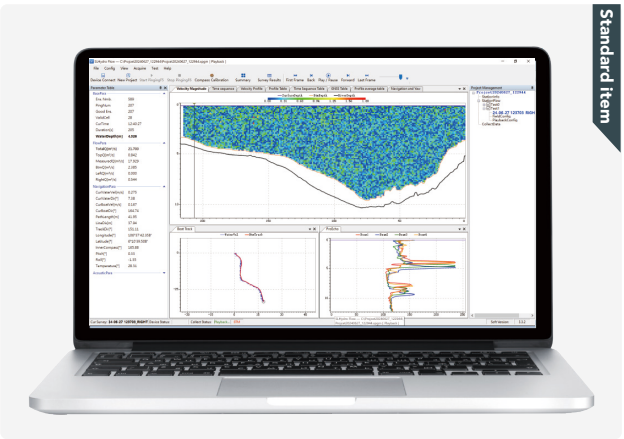




Flexible and versatile mounting



Acquisition and Processing Software



Windows system

SLHydroFlow

Android system

SatFlow

TECHNICAL SUPPORT
SatLab offers online resources and a professional support network available worldwide.

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Acoustic Doppler Current Profiler

Data Specifications

Model	HydroFlow 600	HydroFlow 1200
Transducer and hardware		
System frequency	600kHz	1200kHz
Internal memory	16G standard	
Transducer type	piston	
Working mode	Broadband, Narrowband	Broadband, Narrowband, Pulse Coherente
Operation mode	Manual	Automatic & Manual
Beam	4 Beams Janus, 20°	5 Beams Janus, 20° (600kHz central beam)
Updating rate	Max 20Hz	
Water Velocity Profiling		
Velocity range (typical)	± 5m/s	
Velocity range (maximum)	± 20m/s	
Accuracy	0.25% ±0.2cm/s	
Resolution	1 mm/s	
Profiling range(distance)	0.3-90m	0.1-40m
Bottom tracking		
Velocity range	± 5m/s typical, ± 20m/s maximum	
Depth range	0.4-120m	0.15-50m
Accuracy	+0.25% of water velocity relative to ADCP	
Resolution	1 mm/s	
Cell		
Cell depth	0.05-4m	0.02-2m
Quantity	1~260	
Internal Sensors		
Temperature: range/accuracy/resolution	-10℃～+60℃ / ±0.1℃ / 0.001℃	
Compass: range/accuracy/resolution	0°～360° / ±0.5° / 0.001°	
Motion sensor: range/accuracy/resolution	±30° / ±0.2° / 0.001°	
Pressure sensor (optional) (range accuracy/resolution)	0-200m/0.5%FS/0.01m	
Material		
Engineering plastic (standard), aluminum alloy(optional)		
Communication		
Communication protocol	RS-232 typical, RS-422 (optional) , WIFI(optional)	
Baud rate	4800-115200	
Power		
Iput	9~18VDC （standard 12V）	
Power consumption	3.5W (average)	
Environment		
Working temperature	-5℃~+45℃	
Storage temperature	-20℃~+60℃	
Float (Optional)		
Configuration	Three hulls(Trimaran), USV	
Material	Polyethylene(Trimaran), Carbon Fiber (USV)	
Accessories		
ADCP with transducer, cables, acquisition and processing software		

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- Specifications and accessories are subject to change. We reserve the right to the final interpretation.
- All listed parameters are either theoretical values or measured under controlled conditions.