# **Explore Underwater Science**



# USV 3.01 AQUA M20 3.01 AQUA M10 **Echo J** AQUA M10 3.03 AQUA F28S+ 3.03 AQUA F260D 3.03 AQUA F19S+ 3.03 AQUA F19D 3.03 AQUA F19D

3.05 Comparison





# MARINE



# AQUA M10 Entry-level Unmanned Surface Vessel

- An economical solution for basic bathymetry application

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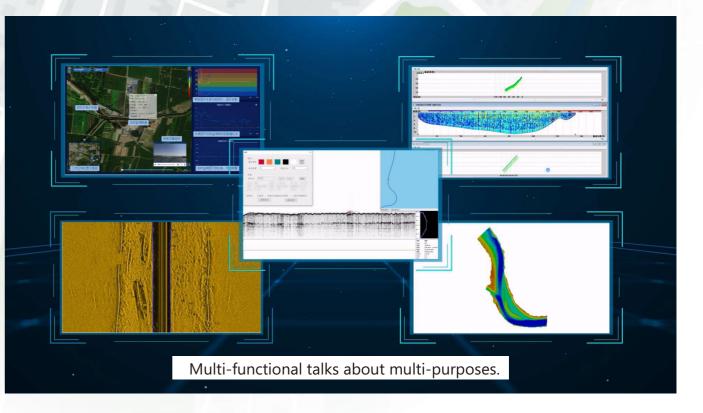
- 360° pano camera and obstacle avoidance sensor on board
- Network bridge integrated with remote controller, control all in one
- Integrated master control for unmanned boat operation
- Auto-pilot, mission control, and marine survey all in one software

# AQUA M20 Multi-functional Unmanned Surface Vessel



- Cutting-edge moon pool, ready to fit a variety of payloads
- 360° pano camera and obstacle avoidance sensor on board
- Network bridge integrated with remote controller, control all in one
- Double-deck hull design, more rugged and reliable for navigation
- Auto-pilot, mission control, and marine survey all in one software











## **Echo Sounder**

## AQUA F28S+ Single-frequency Echo Sounder

- Aluminum alloy housing and compact design, rugged for missions on manned boat
- Quality DSP chip process for reliable waveform and water depth measurement
- Automatic control of pulse width, gain, power and switch in software
- Enhanced shallow-water tracking mode on board

## AQUA F260D Dual-frequency Echo Sounder

- High frequency obtains accurate results while low frequency enjoys better penetrability
- Best for complex water bodies and coastal fluid mud layer in dredged area
- Other features same as the single-frequency model AQUA F28S+

## AQUA F19S+ Single-frequency Echo Sounder Mini

- Lightweight and handy, ready to fit USV as a must-have component
- Wi-Fi access via tablet PC, and Bluetooth communication with GNSS
- built-in web UI operation, easy to configure and remotely control

## AQUA F19D Dual-frequency Echo Sounder Mini

- Dual-frequency version of the model above
- Other features same as the single-frequency model AQUA F19S+











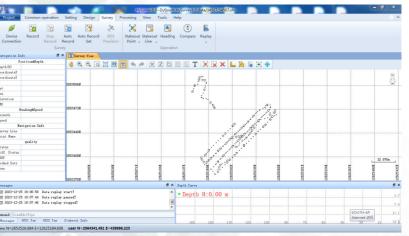




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## **Echo Sounder**



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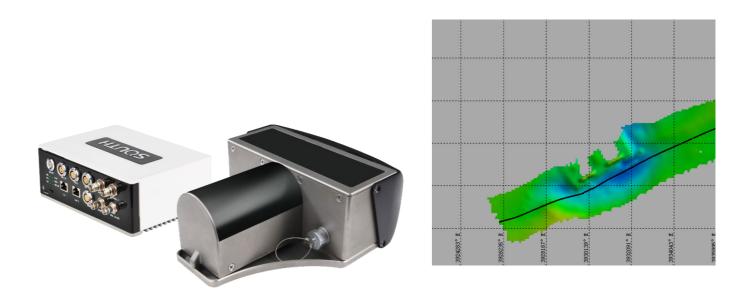
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## **Echo Sounder**

# AQUA T400 Multi-beam Echo Sounder



- Designed to collect hundreds or even thousands of sound intensity sample data within the measurement section, thus implement full coverage measurement in the area
- Used for water course survey, underwater topography, marine-land integrated 3D measurement, etc.
- One-man portable unit, designed for unmanned platforms like USV, ROV, AUV, etc.
- Highly integrated with IMU and GNSS, independent of external devices



# Comparison

Model	AQUA F28S+	AQUA F260D	AQUA F19S+	AQUA F19D	AQUA T400	
Frequency	200 kHz	200/20 kHz	200 kHz	200/20 kHz	400 kHz	
Beam	1	1	1	1	512	
Integrated with PC	$\checkmark$	$\checkmark$	×	×	×	
Software Control	Onboard	Onboard	Web UI	Web UI	Remotely operated or connected to PC	
Designed for Unmanned Platforms	×	×	$\checkmark$	$\checkmark$	$\checkmark$	
Power Supply	External battery needed					





## **S5** Acoustic Doppler Current Profiler (ADCP)

- Used for water current measurement in dynamic mode
- 5 beams in total, 4 for current measurement and 1 for depth
- Profiling range 80m max. and bottom tracking depth 120m max.
- Working frequency 600 kHz typical, 1200 kHz optional
- Supports 0.5-4m layer, current velocity accuracy ±0.25% ± 2mm/s

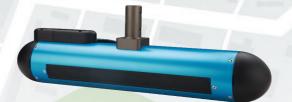




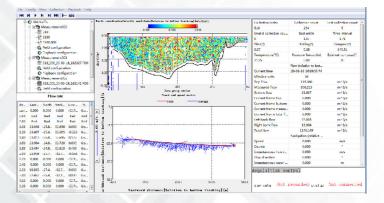
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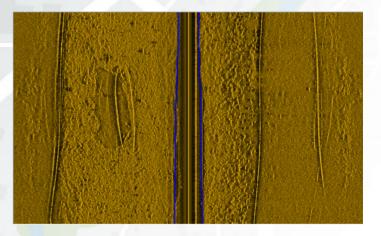
- Used for marine survey detection and presenting a detailed underwater picture
- One-man portable operation and hydromechanical structure design
- Ultrawide coverage, up to 14 times of water depth
- Quality CHIRP imaging technology and anti-interference performance











### SV30 Sound Velocity Sensor

- Direct measurement of sound velocity, water temperature
- Corrosion and pressure resistant hull,
- 316L stainless steel

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- Direct reading by advanced digital signal processing technology
- A variety of data formats to export available





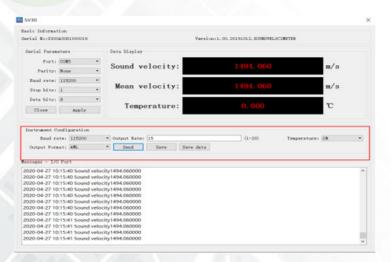


## SV40 Tide Gauge

- Used for studying long-term variations in currents and the volume of water
- Typically installed on the seabed, trestle bridge, dock, anchorage, etc.
- POM material stands out for its high strength, hardness, and rigidity over a wide range of temperatures
- Outstanding data security for time recording and pressure recording







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