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Mini DVL – DVL A100

The Water Linked A100 is a compact, high accuracy Doppler Velocity Log (DVL) designed to deliver precise velocity measurements in a lightweight, integration-friendly package. Developed from Water Linked's extensive experience in subsea navigation, the A100 provides reliable bottom-track performance with an acoustic range of up to 100 meters, making it ideal for close-range and mid-range underwater operations.

Optimised for stability and accuracy, the A100 maintains bottom lock at speeds up to 5 m/s and operates at altitudes down to 5 cm. This wide operating envelope ensures consistent performance across a variety of vehicle profiles and mission types, suitable for any size of ROV, AUV or USV.

Key features

- 5 cm – 100 m altitude range
- 1,000 m depth rated
- Ethernet and Serial communication
- Embedded computer for standalone operation
- Small size enabling easy mounting and integration
- Web GUI with comprehensive diagnostic features
- Water Tracking

With its reduced size and weight, the A100 is particularly well suited for platforms where space and payload capacity are limited. Rated for operations down to 1,000 meters, the A100 is available with either a rear-entry O-ring interface, a 2,5 m side-entry cable or a side-entry Seacon MC8M connector. All options are designed to ensure reliable performance in demanding subsea environments.

For applications requiring onboard navigation capability, the DVL A100 incorporates an integrated AHRS/IMU, enabling dead-reckoning functionality without the need for additional sensors.

Compact, robust, and purpose-built for efficiency, the A100 delivers precise velocity performance in a streamlined form factor, making the DVL A100 an ideal solution for next-generation lightweight underwater vehicles.

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Acoustic | performance

Transducer frequency	625 kHz
Transducer setup	4-beam convex Janus array
Transducer beam angle	22.5 degrees
Ping rate	1 - 15 Hz (adaptive to altitude)
Sensor assist	Integrated AHRS/IMU
Min altitude	5 cm
Max altitude	100 meters (dependent on seabed conditions, salinity levels etc.)
Max velocity	5 m/s
Velocity resolution	0.1 mm/s
Long term accuracy	±1.01 % (Standard version), ±0.1 % (Performance version)

Electrical | interface

Input voltage	10 - 30 Vdc
Power consumption (average)	8 W
Power-on current surge	30 W
Physical interface	Rear-entry O-ring interface (2.5 m shielded cable) Side-entry (2.5 m shielded cable) Side-entry (0.4 m with Seacon MC8M)
Indicator	Status LED (Power, Lock)
Communication	Ethernet & Serial (RS232)
Protocols	Water Linked API, PD0, PD4, PD6

Mechanical

Diameter	90 mm
Height	34 mm
Weight in air	0.2 kg
Weight in water	0.125 kg
Depth rating	1,000 m
Material	PEEK (housing), Stainless Steel 316 (back plate)
Operating temperature	-5 to 55 °C

Approvals

CE

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