WaterLinked
A NORBIT Company

Miniature long range DVL – DVL A125

The Water Linked A125 is the world's smallest long range Doppler Velocity Log (DVL). By utilising the latest technology Water Linked has been able to reduce the size and cost of the DVL, while delivering a level of performance previously not possible in a product so small.

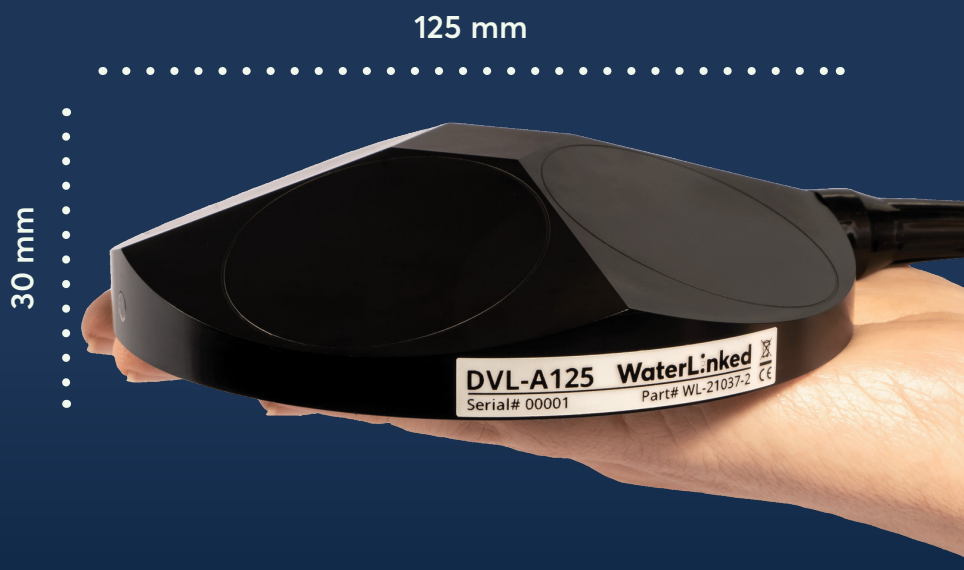
Capable of maintaining bottom lock at speeds of up to 9 meters per second, and with an altitude range of 125m, the A125 is the perfect DVL for ROVs, USVs and AUVs. The ability to also operate at an altitude as low as 5cm means the DVL will work at extremely short range as well as long range.

The size and weight of the A125 allows this DVL to be used on the smallest of vehicles, while having a depth rating of 4,000 m means this high performance DVL can also be used on vehicles that operate at these extreme depths.

Although a DVL is typically integrated fully to the vehicle for enhanced control, the integrated Attitude and Heading Reference System (AHRS) within the A125 allows the DVL to be used for dead reckoning positioning. This feature allows the A125 to generate a track plot of the vehicle's movements without the need to fully integrate with the vehicle control system.

Key features

- 5 cm – 125 m altitude range
- 1,000 m or 4,000 m depth rated
- Ethernet and Serial interface
- Embedded computer for standalone operation
- AHRS for increased accuracy
- Extremely small size enabling easy mounting and integration
- Web GUI with comprehensive diagnostic features
- Water tracking



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Acoustic | performance

Transducer frequency	420 kHz
Transducer setup	4-beam convex Janus array
Transducer beam angle	22.5 degrees
Ping rate	2 - 15 Hz (adaptive to altitude)
Sensor assist	Integrated AHRS
Min altitude	5 cm
Max altitude	125 meters (>110 m is dependent on seabed conditions, salinity levels etc.)
Max velocity	9 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	4 W
Power-on current surge	35 W
Physical interface	3-m cable (PUR 7.8 mm diameter) with interface module, 8 wires (Power / Ethernet / Serial)
Indicator	Status LED (Power, Lock)
Communication	Ethernet & Serial (UART 115200 baud, 3.3 V)
Protocols	Water Linked API, PD4, and PD6

Mechanical

Diameter	125 mm
Height	30 mm
Weight in air	0.75 kg
Weight in water	0.50 kg
Depth rating	1,000 m or 4,000 m
Material	PEEK (housing), Stainless Steel 316 (back plate)
Operating temperature	-5 to 55 °C

Approvals

CE

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