

Compact DVL500, 300 m copy

[logo]

Bottom-track from 0.3 to 380 m range; 300 m operational depth

The DVL500 is a universal Doppler Velocity Log that combines compact design with unprecedented functionality. It can fly higher in the water column and closer to the seabed than similar equipment. This 500 kHz Doppler Velocity Log is used by industry leaders in the subsea market because of its high accuracy and state-of-the-art technology.

Highlights

- [/] Bottom track from 0.3-380 m range
- [/] Per-ping and per-beam data quality estimates
- [/] 300 m operational depth

Applications

- [/] Highly accurate subsea surveys
- [/] AUVs with long missions or high accuracy requirements
- [/] Easy integration with leading inertial navigation systems (INS)

Technical specifications

[arrow] Bottom velocity

Single ping std @ 3 m/s 0.5 cm/s
Long-term accuracy ±0.1% / ±0.1 cm/s
Minimum altitude 0.3 m
Maximum altitude >380 m2)
Velocity resolution Better than 0.01 mm/s
Maximum ping rate 8 Hz

[arrow] Water tracking

Minimum accuracy 0.3% of measured value ± 0.3 cm/s
Minimum range 4.0 m

[arrow] Current profiling

Minimum accuracy 0.3% of measured value ± 0.3 cm/s

[arrow]

Current profiling

Velocity resolution 0.1 cm/s

Interval User-specified Nth ping

Maximum range 100 m

Blanking 0.5 m

Cell size 0.5-4.0 m

Max # cells 140

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Environmental

Operating temperature -4 to +40 °C

Storage temperature -20 to +60 °C

Vibration IEC60068-2-64

EMC approval IEC/EN 61000-6-2, 61000-6-3

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Mechanical

Depth rating 300 m, 1000m available as custom design

Weight 3.5 kg

Weight in water 0.5 kg

Height 203 mm

Diameter ø186 mm

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Hardware

Frequency of operation 333 kHz

Beam width 4.3°

Configuration 4-beam Janus array convex transducer, 25° beam angle

Internal memory 16 GB / 64 GB optional

Frequency of operation 500 kHz

Bandwidth 25% centered at transmit frequency

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Interfaces

Serial (either

serial or Configurable RS-232 or RS-422 Subconn connector, 8-pin male ethernet)

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Interfaces

Ethernet	10/100 Mbits Auto MDI-X. TCP/IP, UDP/IP, HTTP protocols. Fixed IP / DHCP client /Auto IP address assignment. UPnP and Nortek proprietary instrument discovery over Ethernet. IEEE1588/PTP and NTP for absolute time stamping. Multiple simultaneous data format transmission possible.
Data formats	Nortek proprietary w/ 1 ms time stamp accuracy, NMEA0183, Variants of PDx
Trigger	Internal 1, 2, 3, 4, 5, 6, 7 or 8 Hz or Trigger In. Trigger option through command (Ethernet or serial) External TTL or 485 lines: (configurable Rising/Falling/Edges)

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Sensors

Pressure	0.1% FS /precision better than 0.002% of full scale per sample
Temperature	-4° to +40 °C ± 0.1 °C

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Power

DC input	12-48 V
Maximum continuous current	1.5 A
Average power	4.0 W*

* Power based on 1 Hz sampling and altitude with greatest transmit pulse.

[arrow]

Materials

Standard models POM housing