DVL1000

6000 m

Tracking du fond de 0.2 à 75 m. Opérationnel jusqu'à une profondeur de 6000 m



The DVL1000 is the world’s smallest survey-grade Doppler Velocity Log. It combines compact design with unprecedented functionality, being able to fly higher in the water column and closer to the seabed than similar equipment. It has a maximum operational depth of 6000 m and is ideally suited for subsea navigation where size and weight are a concern. This 1 MHz Doppler Velocity Log is used by
industry leaders in the subsea market because of its high accuracy and state-of-the-art technology.

Highlights

- Industry-wide acceptance
- Bottom track from 0.2-75 m range
- Quality estimates - per beam and ping

Applications

- Observation-class ROVs and AUVs
- Near-bottom operations
- Highly accurate subsea surveys
- Easy integration with high-grade INS

Technical specifications

Bottom velocity	
Single ping std @ 1.5 m/s	0.8 cm/s at 1/2 max altitude
Long-term accuracy	±0.1% / ±0.1 cm/s (export-controlled), >1% (license-free)
Minimum altitude	0.1 m
Maximum altitude	75 m
Velocity resolution	0.01 mm/s
Maximum ping rate	8 Hz max

Water tracking	
Minimum accuracy	0.3% of measured value ± 0.3 cm/s
Minimum range	2.0 m

Current profiling	
Minimum accuracy	0.3% of measured value ± 0.3 cm/s
Velocity resolution	0.1 cm/s
Interval	User-specified Nth ping
Maximum range	30 m
Blanking	0.1 m

Current profiling

Cell size	0.2-2.0 m
Max # cells	150

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

Mechanical

Depth rating	6000 m *
Weight	4.15 kg / OEM 2.5 kg
Weight in water	1.7 kg
Height	185 mm
Diameter	ø114 mm

* Les produits DVL1000 livrés avant mars 2024 sont classés en profondeur jusqu'à 4000m et non 6000m. Veuillez contacter Nortek si vous avez des doutes concernant le classement en profondeur de votre instrument.

Hardware

Frequency of operation	1 MHz
Beam width 2.9°	2.9°
Configuration	4-beam Janus array convex transducer, 25° beam angle
Internal memory	16 GB / 64 GB optional
Bandwidth	25% centered at transmit frequency

Interfaces

Serial (either serial or ethernet)	Configurable RS232 or RS422, 8-pin male
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)

Sensors

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

Power

DC input	12-48 V
Maximum continuous current	1.5 A
Average power	1.3 W*

Power

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

Materials

Standard models	POM and titanium housing