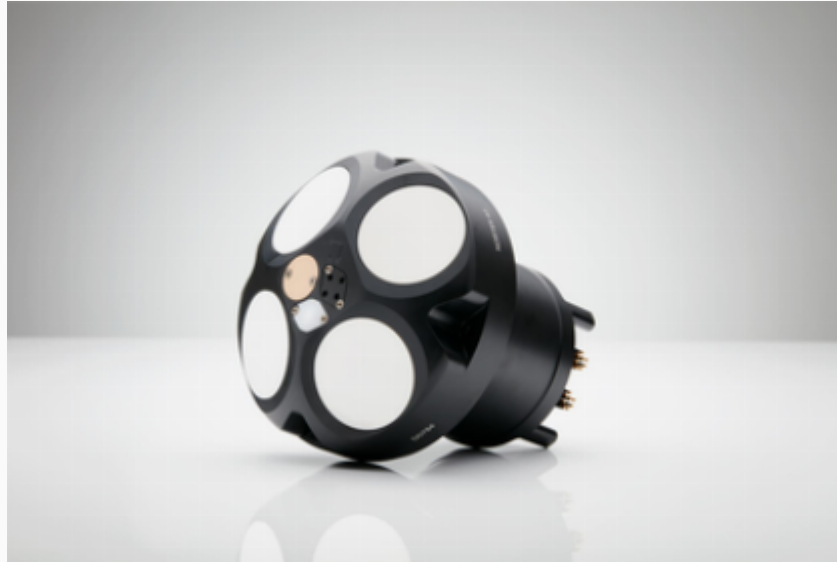


# DVL333 Compact - 300 m



Bottom-track from 0.3 to 375 m range; 300 m operational depth

The DVL333 Compact is a long-range Doppler Velocity Log that benefits from increased range with no compromise in performance or form factor. It allows vehicles to maintain bottom lock in a greater range of environments, increasing mission duration on long-range subsea and surface vehicles. This 333 kHz DVL is used by innovators in the uncrewed vehicle sector looking to expand vehicle capabilities into new environments.

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## Highlights

- ✓ Bottom track from 0.3-375 m range
- ✓ Per-ping and per-beam data quality estimates
- ✓ No change in form factor compared to higher-frequency options

## Applications

- ✓ Large UUVs / AUVs operating at high altitudes
- ✓ USVs and crewed surface vessels requiring redundant navigation input
- ✓ Easy integration with high-end inertial navigation systems (INS)

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## Technical specifications

### → Bottom velocity

Single ping std @ 3 m/s	0.5 cm/s
Long-term accuracy (1)	±0.1% / ±0.1 cm/s
Minimum altitude	0.3 m
Maximum altitude	375 m (2)
Velocity resolution	Better than 0.01 mm/s
Maximum ping rate (3)	8 Hz

(1) Following standard calibration procedures

(2) Bottom-track distance dependent upon bottom type

(3) Inquire for more options

### → Water tracking

Minimum accuracy	0.3% of measured value ± 0.3 cm/s
Minimum range	4.0 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	100 m
Blanking	0.5 m
Cell size	0.5-4.0 m
Max # cells	140

### → 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	300 m
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## → Mechanical

Weight	3.5 kg
Weight in water	0.5 kg
Height	203 mm
Diameter	ø186 mm

## → 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
Bandwidth	25% centered at transmit frequency

## → Interfaces

Serial (either serial or ethernet)	Configurable RS-232 or RS-422 Subconn connector, 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. PD0, PD4, PD5, PD6
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	4.0 W (4)

# DVL333 Compact - 300 m



→ Power

(4) Power based on 1 Hz sampling and altitude with greatest transmit pulse

→ Materials

Standard models

POM housing