

Explorer 6A991

DOPPLER VELOCITY LOG (DVL)

Compact Doppler Technology for your Global Needs

Teledyne RD Instruments **Explorer 6A991 DVL** was designed for our DVL users on the move!

Based on our standard Explorer DVL technology, this product performs to less stringent specifications that qualify it for export under the guidelines of the less stringent Export Control Classification Number (ECCN) 6A991.

This unit was designed for international organizations and U.S. companies that require expeditious deployments to jobsites around the world. The Explorer 6A991 is particularly advantageous to leasing agencies, universities, or other organizations that may have multiple end uses in a variety of international locations.

From littoral to deep water applications, the Explorer 6A991 consistently delivers Doppler navigation and current profiling capability, in a compact package designed to meet the stringent weight and power constraints of today's subsea vehicles. Both remote and self-contained configurations are available.

Explore the possibilities!

Typical Platforms:

- Autonomous Underwater Vehicles (AUV)
- Remotely Operated Vehicles (ROV)
- Unmanned Surface Vehicles (USV)
- Coastal Gliders
- Towed Vehicles
- Diver Consoles



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Explorer 6A991 Features:

- Compact design ideally suited for next-generation littoral platforms
- Self-contained or remote configuration options available to meet your unique needs
- Configurations for your littoral or deep water applications
- Flexible design facilitates easy communication with other sensors
- Teledyne RDI's proven bottom-tracking algorithms ensure data quality, reliability, and unmatched performance
- Upgradable to include ADCP (Acoustic Doppler Current Profiling) capability

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Specifications

Bottom Tracking

Maximum Altitude ^{1,3}	65m
Minimum Altitude	0.5m (0.31m optionally)
Velocity Range ²	± 9.5m/s
Long Term Accuracy ⁵	± 1.15% ± 0.2cm/s
Precision @ 1 m/s ⁴	± 1.2cm/s
Resolution	0.1cm/s (default), 0.001cm/s (selectable)
Ping Rate	12Hz max

Water Profiling

Maximum Range ^{1,3}	20m
Minimum Range	0.7m
Velocity Range ²	± 16.5m/s
Long Term Accuracy	± 0.75% ± 0.2 m/s
Precision ³ @ 1m/s	± 6cm/s
Resolution	0.1cm/s

Acoustic

Center Frequency	614.4kHz
1-Way Beam Width	3.3°
Number of Beams	4
Beam Angle	30°

¹ @ 5°C and 35 ppt, 24V input.

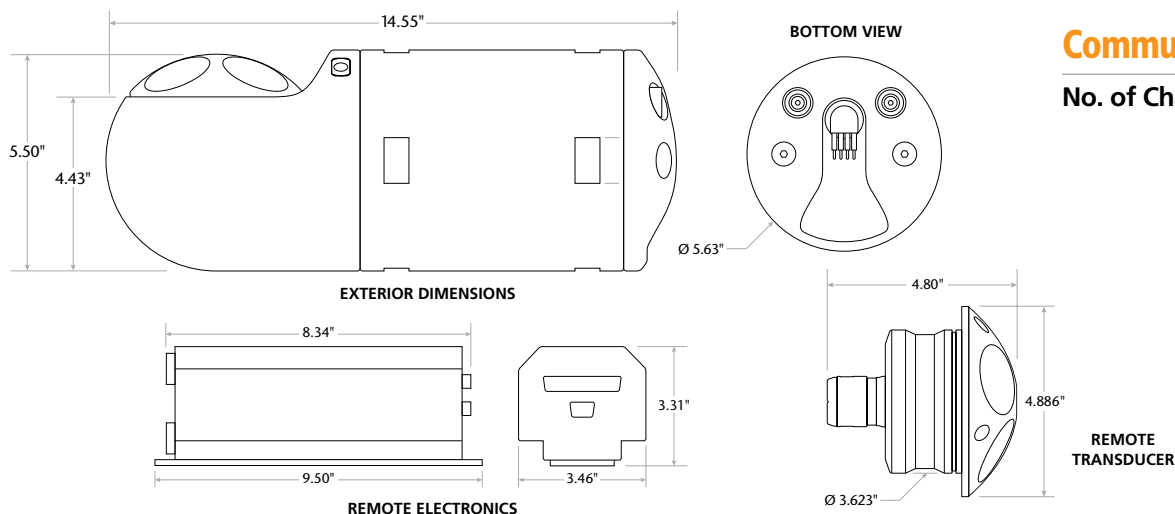
² When mounted with beam 3 at 45°. Also, for platforms with forward velocity higher than reverse (or vice versa) the maximum velocity can be increased 4.75 m/s for bottom track via a firmware command.

³ Maximum range may be reduced due to flow noise.

⁴ Standard deviation refers to single-ping horizontal velocity, specified at half the maximum altitude.

⁵ Specification allows for export under EAR 6A991.

Dimensions



Environmental

Maximum Operating Depth:

300m remote head / 4000m self-contained

Operating Temperature: -5°C to 40°C

Storage Temperature: -25°C to 60°C

Weight in air:

Self-Contained 4000m 7.94kg

Self-Contained 300m 2.49kg

Weight in water:

Self-Contained 4000m 2.72kg

Power

DC Input: 12-24VDC,

24VDC typical

Current: 0.4A minimum
supply capability

Peak Power @ 24V: 12W

**Average Power
while transmitting
(typical):** 2W

**Average
Quiescent Power:** 1.1W

Upgrades Available

Current Profiling

Low Altitude Bottom Tracking

Honeywell Heading, Pitch and Roll

Communications

No. of Channels: 4: combination of
RS232 and RS422



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Free 24/7 emergency support

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Specifications subject to change without notice. ISO 9001:2008 certification applicable to Poway, CA facility only.
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