VA500 Altimeter

The Valeport Altimeter delivers a new approach to the problem of underwater positioning. State of the art signal processing offers unrivalled range and performance from a 500kHz transducer. Millimetric precision, 0.1m – 100m range, RS232/RS485/0-5V & 0-10V analogue outputs with a wide range power supply address the needs of the ROV, AUV, Underwater construction and Hydrographic community package.

The option of integrating a high accuracy pressure sensor (0.01%) as used in the MiniIPS offers an unbeatable package for your underwater positioning requirements.

OEM options are also available – please contact Valeport for details.
Sensors

Acoustic

State of the art signal processing technology provides stable, repeatable readings while allowing the range to be extended to unrivalled distances for a 500kHz altimeter.

<table>
<thead>
<tr>
<th>Type</th>
<th>500kHz broadband transducer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>0.1m – 100m</td>
</tr>
<tr>
<td>Resolution</td>
<td>1mm</td>
</tr>
<tr>
<td>Beam Angle</td>
<td>±3°</td>
</tr>
</tbody>
</table>

Pressure

The optional pressure sensor fitted to the Altimeter is a temperature compensated piezo-resistive sensor, which delivers the performance previously only available from a resonant quartz sensor at a more cost-effective price.

<table>
<thead>
<tr>
<th>Type</th>
<th>Temperature compensated piezo-resistive</th>
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<tbody>
<tr>
<td>Range</td>
<td>10, 20, 30, 50, 100, 200, 300, 400 and 600 Bar</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±0.01% FS</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.001% FS</td>
</tr>
</tbody>
</table>

Data Acquisition

Sampling: Continuous or data on demand (by command/TTL)

Data Rate: 1, 2, 4Hz and continuous

Physical

Housing: Titanium (6000m rated)

Weight: standard unit: <1kg in air with pressure: <1.5kg in air

Connector: SubConn MCBH10F Titanium

Shipping: 36 x 29 x 16cm <3Kg

Communications

Digital Output: RS232 & RS485 fitted as standard

Protocol: 4800 to 115200 baud, (8,1,N)

Format: User defined output formatting

Analogue Output: 0-5/10V fitted as standard

Power Requirements

Input: 9 - 28V DC

Power: <125 mA @ 12V

Ordering

0430003 VA500 Altimeter, in Titanium
0430004 VA500P Altimeter with 0.01% FS pressure sensor, in Titanium
0430005 VA500RA Altimeter Right Angled sensor in Titanium
0430006 VA500RAP Altimeter Right Angled sensor, in Titanium with 0.01% FS pressure sensor

All supplied with 50cm pigtail, operation manual and transit case