The MIDAS BathyPack is one of Valeport's premier MIDAS products, using state of the art sensors to generate precision Sound Velocity and Density profiles for highly accurate depth and height data. The simple top-end PC software, BathyLog, also allows all profile data to be used to monitor and correct multiple miniIPS pressure sensors, giving you the complete picture with one integrated sensor suite.

Sensors

Conductivity
Robust, accurate inductive cell. Digital sampling technique means no more field calibrations.

Range: 0 - 80 mS/cm
Accuracy: ±0.01 mS/cm
Resolution: 0.002 mS/cm

Temperature
Type: Fast Response PRT with guard
Range: -5 to +35 °C
Accuracy: ±0.005 °C
Resolution: 0.002 °C

Pressure
Revolutionary temperature compensated piezo-resistive sensor; all the performance of a resonant quartz sensor but with long term stability and better durability. No more oil!
Range: 10, 30, 100, 300 or 600 Bar
Accuracy: ±0.01% range
Resolution: 0.001% range

Sound Velocity
Valeport’s digital time of flight sensor - the most accurate SV sensor in the world.
Range: 1375 - 1900 m/s
Accuracy: ±0.02 m/s
Resolution: 0.001 m/s

Altimeter
BathyPack accepts a variety of industry standard devices. Typical specification - Valeport VA500 Altimeter:
Frequency: 500kHz
Range: 0 - 50 m (6000 m depth rating)
Resolution: 1mm

Calculations
Density: EOS-80 Equation of State of Seawater
Salinity: PSS78 Practical Salinity Scale
Depth: UNESCO Pressure/Depth Relationship or Simplified "Mean Density" Correction

Data Acquisition
Data Sampling: 2Hz
Lookup Table: 6000 points (1m res. @ max depth)
Sampling Sequence: Synchronous

Communications
The instrument will operate by direct communications with PC before and after deployment. It also operates in real time, with a choice of communication protocols for a variety of cable lengths, all fitted as standard and selected by pin choice on the output connector:

Standard
RS232: Up to 200m cable, direct to serial port via USB adaptor
RS485: Up to 1000m cable, addressable half duplex comms
Baud Rate: 2400 - 115200
Protocol: 8 data bits, 1 stop bit, No parity, No flow control

Electrical
External Power: 12 - 30vDC
Power: Nominal 4W max
Connector: SubConn MC 8H10F

Physical
Materials: Titanium housing, polyurethane, composite and polycarbonate sensor components
Depth Rating: 6000 m (may be limited by pressure sensor)
Instrument Size: 88mmØ x 425mm long
Weight: 6kg
Shipping: 74 x 35 x 27cm 13kg

Software
System is supplied with BathyLog Windows based PC software, for instrument setup and data display. BathyLog is licence free.

Ordering
0608002 MIDAS BathyPack in titanium
Supplied with:
• 3m interface lead
• 0.5m altimeter input pigtail
• BathyLog software
• Manual and transit case.

Associated Products
0760001 miniIPS Pressure Sensor
0430003 VA500 Altimeter