# **MIDAS BathyPack**



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.

LEPORT

#### 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

Fast response PRT with guard.

Range: -5 to +35 °C ±0.005 °C Accuracy: 0.002 °C Resolution:

#### 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 600Bar
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:

Frequency:	500kHz
Range:	0 - 50 m (6000m depth rating)
Resolution:	1mm

# Calculations

Density: EOS-80 Equation of State of Seawater Salinity: PSS78 Practical Salinity Scale UNESCO Pressure/Depth Relationship Depth: 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 RS2

RS232	Up to 200m cable, direct to serial port via USB adaptor
RS485	Up to 1000m cable, addressable half duplex comms

Baud Rate: Protocol:

2400 - 115200 8 data bits, 1 stop bit, No parity, No flow control

## Electrical

External Power: 12 - 30vDC Nominal 4W max Power: Subconn MCBH10F Connector:

#### **Physical**

Materials: Depth Rating: Instrument Size: Weight: Shipping:

Titanium housing, polyurethane, composite and polycarbonate sensor components 6000m (may be limited by pressure sensor) 88mmØ x 425mm long 6kg 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 housing with BathyLog software, 0.5m altimeter input pigtail, 3m interface lead, manual and transit case.

# Specify:

Required pressure range Altimeter requirements

## Associated Products

0760001 miniIPS Pressure Sensor

Datasheet Reference: MIDAS BathyPack version 2A, Feb 2011

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