Product Details

PRESSURE AND TEMPERATURE

DATALOG X2 SOFTWARE

MIDAS WLR -
Water Level Recorder

The MIDAS WLR is a precision water level recorder, designed for use in both autonomous and real time deployments. Fitted with a 0.01% accuracy pressure sensor and accurate PRT temperature sensor as standard, the MIDAS WLR features a variety of operating modes from rapid 8Hz continuous sampling to power saving burst modes for long term monitoring. The titanium housed instrument is suitable for fixed or inline mooring, with a variety of built-in communication options.

VALEPORT

Sensors

The MIDAS WLR comes with a choice of pressure sensor ranges to suit the depth requirement of the operator. The sensor used is a revolutionary piezo-resistive cell with internal temperature compensation, giving the accuracy and resolution levels normally associated with a resonant quartz sensor, but with increased durability, stability and recalibration intervals.

Pressure

Type	Temperature compensated piezo-resistive cell
Ranges	10, 20, 30, 50, 100, 200, 300, 400 or 600 Bar
Accuracy	±0.01%FS
Resolution	0.001%FS

Temperature

Type	Titanium housed PRT
Range	-5°C - +35°C
Accuracy	±0.01°C

Data Acquisition

In line with other Valeport MIDAS series instrumentation, the MIDAS WLR samples data points at up to 8Hz, and has a variety of operating modes including continuous data output, triggered sampling, and data bursting. The typical configuration for this instrument is to sample data in a burst mode for a user defined integration period, selectable from a single sample up to 600 seconds. This data burst may then be repeated at a suitable regular interval, from once per minute to once per day.

Sampled data may either be recorded in its entirety, or simply averaged and recorded along with standard deviation data. It is usually recommended that data is averaged over an integration period of 40 seconds to filter the effects of any wave activity.

Note that Valeport's distributed processing concept allows the pressure data to be automatically converted into the user's choice of units, including metres or feet of water.

Memory

Standard memory is 16Mbyte FLASH, which is capable of storing approximately 2.7 million records. The memory is non-volatile, so data and configuration are retained in the event of power failure.

Communications

RS232	Up to 200m cable, direct to serial port via USB adapter
RS485	Up to 1000m cable, addressable half duplex comms
Baud Rate	2400 - 115200 (FSK fixed at 19200, USB 460800)
Protocol	8 data bits, 1 stop bit, No parity, No flow control

Electrical

Internal	8 x C cells, 1.5V alkaline or 3.6V lithium
External	9 – 30V DC
Power	0.3W (sampling), <1mW (sleeping)
Battery Life	125 days operation (alkaline) or 360 days (lithium) based on a 40 second burst sample every 10 minutes
Connector	SubConn MCBH10F

Software

System is supplied with DataLog X2 Windows based PC software, for instrument setup, data extraction and display. DataLog X2 is licence free.

Physical

Instrument	88mmØ x 550mm, 11kg (Titanium)
Cage	750mm x 140mm x 120mm
Depth Rating	6000m (Titanium) Sensor range permitting.
Shipping	100 x 18 x 49cm, 24kg (Titanium)

Ordering

0730046-XX	MIDAS WLR in Titanium 0.01% pressure sensor PRT temperature sensor Supplied with: · Mooring cage · SubConn switch plug · 3m communications lead · USB adapter · DataLog x2 software · Manual, tool kit and transit case
Note	XX denotes pressure transducer range. Select from 10, 20, 30, 50, 100, 200, 300, 400 or 600 Bar