

Portable Tide Gauge

Model 740



A compact, self contained tide gauge, ideally suited to hydrographic survey applications

FEATURES

- Over 2 years capacity
- User setable sampling
- Delay start feature
- Easy to install
- Radio data telemetry option
- Robust titanium transducer housing
- Windows based setup and display software
- Spreadsheet compatible data
- Small, compact unit

DESCRIPTION

The Model 740 is a small, cost effective Tide Gauge / Water Level Recorder, specifically designed for applications where the user simply requires an accurate record of water height, rather than the more sophisticated capabilities of the larger Model 710 system.

Comprising a corrosion resistant Titanium housed vented pressure transducer, connected via a 20m cable to an above surface battery powered logger, the Model 740 is simple to install in temporary and permanent sites, and requires minimal maintenance.

The logger is powered by 4 "D" type cells, which, together with the 128kbyte memory allows operation for over 900 days at a 20 minute cycle with 10 second bursts.

The burst length, cycle time, delay start time and site information are set using the PC software package supplied. This simple program also allows the battery voltage to be checked, the time and date to be set, and the recorded data to be extracted in a spreadsheet compatible format.

The Model 740 is also available with a UHF radio telemetry link, to provide data in real time, and to allow full instrument setup and data extraction from a remote PC, using the above mentioned software.

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SPECIFICATION

TRANSDUCER

Type:

Vented strain gauge, with stainless steel mounting bracket.

Range:

Standard 10dBar (approx 10m), with 20m cable. Other ranges and lengths available.

Accuracy:

±0.1% Full Scale.

Calibration:

Held within logging unit.

Dimensions:

18mm diameter x 80mm.

LOGGING UNIT

Housing:

Black anodised aluminium, waterproof to IP67 (0.5m for 30 secs), but system includes transducer vent to atmosphere. The electronics are sealed from the vent.

Power:

4 "D" cells within housing. Alkaline cells provide power for over 900 days at 20 minute sampling with burst length of 10 secs.

Memory:

128kbyte solid state, allowing over 65,000 data points. Equivalent to over 900 days at 20 minute sampling. New data file created every time unit is switched on by user.

Sampling:

Raw data sampled at 4Hz and logged as average over burst. Burst length is selectable between 1 and 60 seconds. Cycle time is selectable from 1 minute or from 5 to 1440 minutes (1 day) in 5 minute steps

Switching:

Delay start time set by PC. Switch on by fitting waterproof plug or comms lead to comms port.

Resolution:

Data logged to 1mm resolution. Raw data sampled at 14 bit (1:16384) resolution.

Comms:

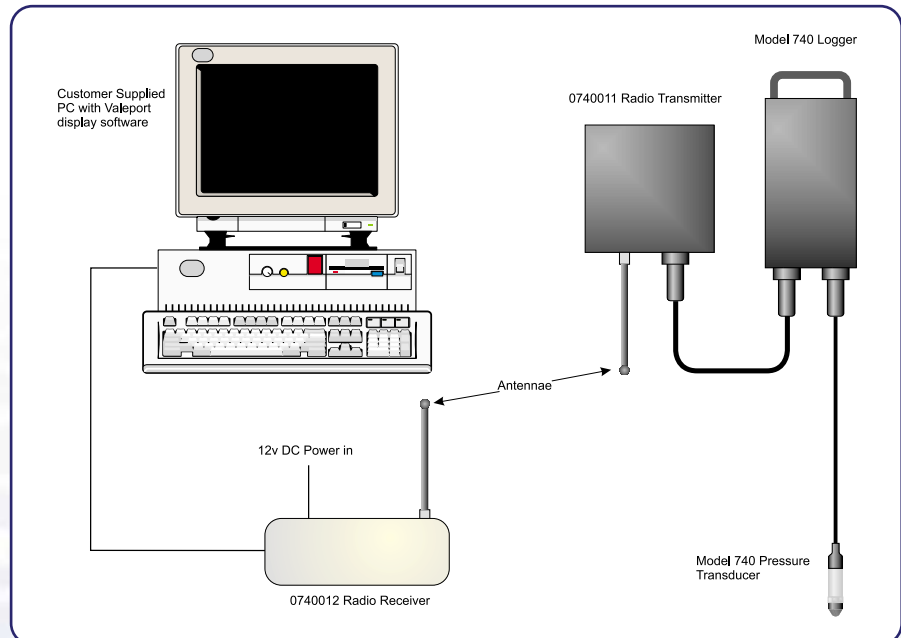
RS232 via 3m cable to PC, or via 1m cable to radio unit.

Dimensions:

Housing 47mm x 110mm x 235 mm.

Weight:

1.7kg (approx) including batteries.



RADIO

Frequency:

Selectable frequency UHF synthesised radio transceiver, operating in UK licence exempt band (458.5 - 458.9 MHz).

Power output:

Supplied as nominal 500mW peak output.

RS232 output:

4800 baud, 8,1,N.

Aerials:

Standard: Transmitter ¼ wave 'rubber duck'. Receiver 3dB omni-directional.

Optional: Transmitter 3dB omni-directional.

Power input:

Transmitter: Takes power from Model 740, or from external 12vDC supply. 0.04mA quiescent, 120mA receive, 410mA transmit.

Receiver: 12vDC input, 120mA receive, 410mA transmit.

Transmitter:

IP67 Black anodised aluminium box.

Size: 200mm x 200mm x 70mm.

Connectors: To antenna, Model 740 & external power supply.

Receiver:

Desktop style anodised aluminium box.

Size: 200mm x 180mm x 70mm.

Connectors: To antenna, 12vDC input & RS232 output.

ORDERING

0740006:

Portable water level recorder set c/w 1 Bar Titanium vented transducer, wall mounting bracket and 20m cable, electronics/logger in rugged anodised aluminium housing with batteries. Supplied with Windows based TideLog™ software and operating/instruction manual.

0740011:

Selectable frequency UHF synthesised radio transceiver (remote station) in IP67 housing. Supplied with 'rubber duck' antenna and comms lead to Model 740.

0740012:

Selectable frequency UHF synthesised radio transceiver (base station) in IP67 housing. Supplied with 3dB omni-directional antenna, 10m cable, 12vDC input lead and RS232 output lead (9 way D type).

Valeport manufactures a wide range of oceanographic and hydrometric instruments including self-recording and direct reading multi-parameter current meters, sound velocity probes, CTD probes, wave recorders, tide gauges, open channel flow meters, water and plankton samplers, winches, sinker weights, connectors and accessories.

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