Model 740

Valeport's popular Model 740 tide gauge has been designed to provide an accurate, easily deployed tide gauge for use in short or long term hydrographic survey operations. Low power consumption and user selectable sampling regime allow up to 2 years' autonomous operation, whilst the optional radio transmission package extends the capabilities for real time operations. Data output is compatible with the MIDAS Surveyor GPS Echo Sounder system.

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 100mW peak output.

RS232 output: 4800 baud, 8,1,N.

Aerials

Transmitter: ¼ wave 'rubber duck' (standard, ~2km). 3dB omni-directional (option, ~10km)

Receiver: 3dB omni-directional.

Power input

Transmitter: Takes power from Model 740, or from external 12vDC supply.

Current: 0.04mA sleep, 120mA receive, 410mA transmit.

Receiver: requires external 12vDC input

Current: 120mA receive, 410mA transmit.

Transmitter Physical

Materials: IP67 Black anodised aluminium box.

Size: 200mm x 200mm x 70mm.

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

Receiver Physical

Materials: 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 desktop housing. Supplied with 3dB omni-directional antenna, 10m cable, 12vDC input lead and RS232 output lead (9 way D type).

0740014 Optional 3dB omnidirectional antenna with 10m cable for transmitter unit.

Datasheet Reference Number: MODEL 740 v1A

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