

Remote controlled Cableway System

SURFACE WATER | DISCHARGE MEASUREMENT

General Description

HyQuest Solutions' cableway system Hornet Plus has been developed to perform **stream discharge measurements from fixed cableways**.

The Hornet Plus uses an **Acoustic Doppler Current Profiler (ADCP)** or **mechanical current meter** attached to a suitable gauging weight to measure discharge. It features an advanced hoist that measures depth, angle of drift and current meter counts, and sends the information to the remote control.

The Hornet Plus is an ideal solution to replace manned cableways, thus removing the personal injury risk associated with this type of gauging: The system is operated from the bank of a stream. Using a handheld remote control, the operator can manoeuvre the flow sensing device with the push of a switch to traverse the waterway section to be measured.

The control system operates an electric motor to drive the carriage and hoist from the operating side to the far side of the waterway and back to the starting point. The operator uses the remote control to raise and lower the flow sensing device from the water via the hoist.

Applications

The Hornet Plus is suitable for stream discharge measurements using Acoustic Doppler Current Profilers (ADCP) or mechanical current meters.

Features

- Easy set up
- Minimal maintenance
- Variable traversing speed up to 1.0 m/sec (3.3 ft/sec)
- Auto-correction of horizontal distance
- Auto-correction of depth of observation (angle of drift, airline, wetline measured)



Technical Specifications

Power Supply

- Traversing: AC mains (or portable generator 1 kW)
- Hoist: 2 x 12 V DC, 40 Ah, SLA batteries
- Remote Control: 3 x NiMH 2.5 Ah AA batteries (alkaline type can be used in an emergency)

Hoist and cable

- Maximum lift: 135 kg (300 lb)
- Cable: 3.2 mm amergraph cable
- Maximum cable span 400 m (1300 ft)

Remote Control

- 1 km range (0.6 mile)
- Raise and lower, forward and reverse; variable speed control
- Battery voltage displayed
- LCD 16 chars x 2 line with backlighting: measures and displays distance
- LEDs for communications and fault indication
- Current meter revolutions transmitted wirelessly to remote with signal cleaned and verified

Radio Frequency

Licence free bands: USA 902.5-014.5 MHz, AUS 915.5-027.5 MHz

Packed dimensions and weight

80 x 80 x 130 cm (31 x 31 51"); 165 kg (364 lb)

Accessories



Amergraph cable: Double purpose cable which is specially constructed to permit the suspension in the stream of the current meter and heavy Columbus weights, and at the same time provide a medium through which the meter signals are carried to a counting device.



Current Meters: HyQuest Solutions offers various models, e.g. OSSB1 (universal device for open and closed channels), and Red Back (cup-type device with advanced contact switching system that allows the measurement of water flow in streams, open canals, pressure pipes, lakes

and seas to a fine degree of accuracy and repeatability.)



Current Meter Counters (various models): Features: waterproof enclosures, simple button controlled menus, embedded LCDs and beepers to make counts audible. Pre-set or manually stopped sampling period. Improved accuracy due to signal conditioning. Bluetooth interfaces for use with HydroTab Stream Gauging Computer available.



HydroTab Stream Gauging Computer: Assembly of HydroTab software and a tablet suitable for harsh and wet environments. Used for direct water velocity measurements, or collecting, calculating, displaying and emailing full river gauging data.



Gauging Weights (Columbus and Nose Mounted Ground Feeler models): Positions the current meter correctly in fast flowing water, protects it against heavy debris damage, streamlined shape reduces resistance to flowing water.

Please ask for details.

Reseller

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