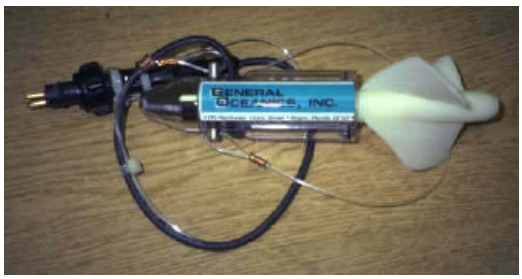
General Oceanics - *Flowmeters*

Model 2031/2135 Electronic Flowmeter & Readout



The 2031H flowmeter sensor is small and lightweight general purpose impeller instrument made of rugged non-corrosive materials. It measures flow rates from 2cm/sec to 7.9 m/sec, is self-orientating and has unlimited depth capabilities. The 2031HR6 has a high resolution rotor for low-speed operations. Optional 128k memory, RS-232 and software for data recording.

The model 2135 is a real-time readout, hand held microprocessor controlled data acquisition unit. When used in conjunction with our flowmeter sensor, this battery operated waterproof unit displays current velocity in cm/sec, ft/sec. m/sec, or knots. The easy-to-read two line liquid crystal display also gives you total distance travelled. The microprocessor based unit provides an event timer with external start/stop freeze display switch.

Applications:

Typically used in open channel applications including, rivers, estuaries, canals, sewage outfalls, pipes, harbour entrances, offshore sites and in association with plankton nets and other samplers. These flowmeters have been used also as towed speed logs by some America's Cup contenders. Other areas include; Storm water Discharge, Wastewater Treatment, Laboratories, Aquaculture and Aquariums, Industrial Processes, Paper and Pulp Discharge, Groundwater, Power Generation, Building Services, Environmental Impact Studies.

Specifications: (2031H Series)

Materials:
Celcon rotor. Nickel-plated brass nose cone. Polycarbonate body. Stainless steel main rotor and idler gear shafts.
Dimensions: 21.3 cm overall length. Standard rotor diameter: 6.98 cm. Low-speed rotor diameter: 16.5 cm.
Weight in Air: 225 grams. Weight in Water: 113 grams.
Depth Rating: Unlimited (free flooding).

Data Readout:
Six 10-digit counter wheels reading 000000 to 999999. Ten counts per rotor revolution, non-resetting. 6-Digit Full Scale Counter: 999999 counts equals approximately 14.5 nautical miles.

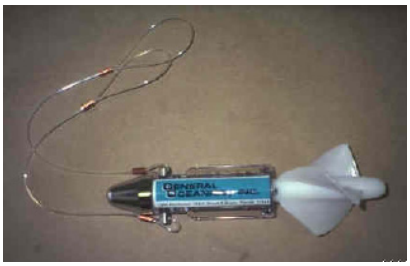
Mounting:
Universal bridle allowing single-point connection for towing or two-point connection within net mouth.

Standard Rotor (Model 2031H)
Threshold: Approximately 10 cm/sec (1/5 knot).
Range: Approximately 10 cm/sec (1/5 knot) to 7.9 meters/sec (15 knots).

Optional Rotor (Model 2031HR6)
Threshold: Approximately 6 cm/sec (3/25 knot).
Range: Approximately 6 cm/sec (3/25 knot) to 100 cm/sec (approximately 6 knots).

Standard order for 2031H series electronic flowmeter includes rotor (specify standard or low-speed rotor), universal bridle and "pigtail" (short length of cable and underwater connector for connection to readout cable).
Order readout (Model 2135) separately.

Model 2135 Data Readout



Data Readout:

- Multiple parameter display (two line, 32 character, high contrast super-twist LCD) shows impeller, velocity, aperture, distance (or volume) and event timer.
- Velocity to four digits (under selectable ranges include cm/sec., ft./sec., ...knots).
- Distance calculated in nautical miles or meters (selectable)
- Event time to 100 minutes (automatic roll over and display hold ...capabilities).
- Data point time tag every tenth update. (RS232C option required)
- Low battery indicators.

Enclosure: Waterproof (NEMA 4) ABS housing (nylon shoulder strap included)
Weight: 0.45 Kg including batteries.
Dimensions: Height - 22.8 cm, Width - 11.4 cm, Depth - 4.4 cm
Power: Four 1.5 volt AA alkaline batteries (~. 300 hours continuous use).
Options: Memory 64 kilobytes (approx. 50,000 readings).
Standard order for 2035MK4 includes batteries, shoulder strap and one 10-meter (33-foot) 3-conductor cable.
Extensions available; order 10-, 20-, 30-, 40-, or 50- meter lengths.

Model 2030 Mechanical Flowmeters

The 2030 is a compact, general purpose instrument for flow measurements in rivers, estuaries, canals, sewage outfalls, and offshore applications. It is ideal for determining water speed, volume, or distance.

The Flowmeter incorporates a precision moulded rotor coupled directly to a six digit counter which registers each revolution of the rotor and displays it in a fashion similar to that of an odometer. The counter is located within the body of the instrument and is displayed through the clear plastic housing. Ballasted for dynamic in situ stability

Specifications

Materials:
Celcon rotor. Nickel-plated brass nose cone. Polycarbonate body. Armaloyed stainless steel main rotor and idler gear shafts.
Dimensions: 21.3 cm overall length. Standard rotor diameter: 6.98 cm.
Low-speed rotor diameter: 16.5 cm.
Weight in Air: 225 grams. **Weight in Water**: 113 grams.
Depth Rating: Unlimited (free flooding).

Data Readout:
Six 10-digit counter wheels reading 000000 to 999999. Ten counts per rotor revolution, non-resetting. Read by noting difference in beginning and end readings. (counter advances through 000000).
6-Digit Full Scale Counter: 999999 counts equals approximately 14.5 nautical miles.
7-Digit Full-Scale Counter (Model 20307): 9999999 equals 145 nautical miles.
Mounting: Universal bridle allowing single-point connection or two-point connection. (optional wading rod).

Standard Rotor (Model 2030R)
Threshold: Approximately 10 cm/sec (1/5 knot).
Range: Approximately 10 cm/sec (1/5 knot) to 7.9 meters/sec (15 knots).

Optional Rotor (Model 2030R6)
Threshold: Approximately 6 cm/sec (3/25 knot).
Range: Approximately 6 cm/sec (3/25 knot) to 100 cm/sec (approximately 2 knots).

Standard order of the 2030 series mechanical flowmeter includes universal bridle, standard or low-speed rotor.

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