2-Dimensional Current Meter

A compact, cost-effective meter with vector-averaged current speed and direction

The Falmouth Scientific, Inc. 2-Dimensional Acoustic Current meter represents the state of the art in single-point acoustic current meter design.

Utilizing ultra-low-power solid-state design, the 2D ACM offers a very compact, lightweight measurement tool capable of high-accuracy horizontal current measurement. With internal data logging capability, long-term battery operation, integrated electronic compass and tilt sensors, the 2D ACM is well suited for a broad variety of measurement applications.

The instrument is available in either shallow-water epoxy, or deep-water titanium housings. The 2D ACM also has the capability of adding a CTD module and can log up to two analog inputs from external sensors (e.g., DO, OBS, Fluorometer, Transmissometer).

2D ACM with optional 5 ton frame

FEATURES

- Compact, lightweight, low-maintenance construction
- Simple to operate
- 2-axis true cosine response velocity measurement
- Accurate velocity measurement with excellent low-velocity resolution
- Electronic magnetoresistive compass with 2-axis tilt sensor
- Temperature measurement capability
- Extremely long battery life with low-maintenance alkaline batteries
- Real-time output/display capability
- Long-term data logging to internal flash memory
- ASCII serial data output via RS-232 or RS-485
- Built-in real-time clock with on/off power control
- 1.5-ton working strength mooring frame
  (optional 5-ton mooring frame)
- Optional conductivity, temperature, pressure sensor package may be added
- Choice of epoxy shallow-water or titanium deep-water housing

SPECIFICATIONS

Sensors

Parameter	Type	Range	Accuracy	Resolution
Velocity	Acoustic	0 to 600 cm/s	2% of Reading or 1 cm/s	0.01 cm/s
Direction	3 Axis Magnetometer	0 to 360°	±2°	0.01°
Tilt	2 Axis Accelerometer	0 to 45°	0.5°	0.01°
Temperature	Semi-Conductor	-2 to 35°C	0.5°C, 0.1°C*	0.01°C

*Optional

Optional CTD

	Range	Accuracy	Resolution	Stability
Conductivity (mS/cm)	0 to 70	±0.01	.001	±0.0005 per month
Temperature (Celsius)	-5 to 32° ITS-90	±0.01°	.001°	±0.0005° per month
Pressure (dBar)	0 to 200 dBar 0 to 7000 dBar	±0.1% full scale	0.01% full scale	±0.01% per month

Instrument

External Power: 9 to 20 VDC, 12 mA (ACM Only), 32 mA (ACM with CTD)

Battery Power: Alkaline 5 D Cell Welded Pack, 10 AHR, 7.5 VDC

Sample Rate: 2 Hz Maximum

Vector Averaging Period: 59 Min:59 Sec

Depth Rating/Physical Material: 200 Meter Epoxy Housing Standard, P/N: 2ACM-200
7000 Meter Titanium Housing Optional, P/N: 2ACM-7000

Mooring Frame: 1.5 Ton 316 Stainless Steel Mooring Frame Standard
5 Ton Stainless Steel Mooring Frame Optional

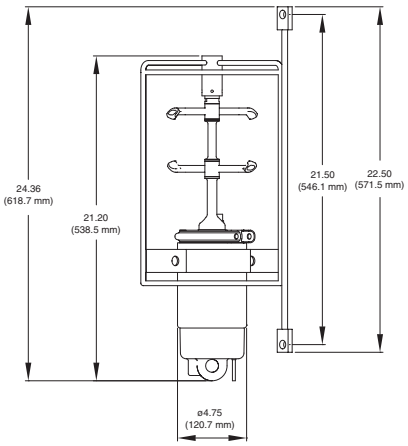
Real Time Clock: Programmable Sampling/Low-power Mode

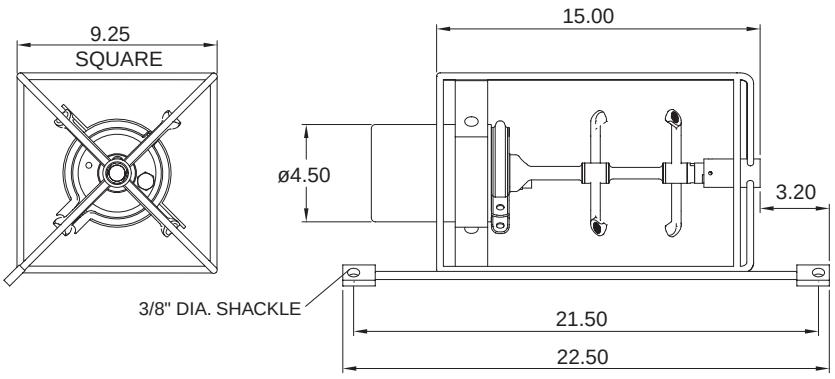
Clock Stability: ±5 ppm initial accuracy, ±12 ppm/year

Input Channels: Two (2) DC Input Channels Available for Other Sensor Input, such as Transmissometer, DO, OBS (Regulated 12 VDC Output to Power Other Sensors)

Weight: Air: 8 lbs/3.63 Kg (200 Meter Version)
Air: CTD 1.54 lbs/.7 Kg
Water: 4 lbs/1.81 Kg (200 Meter Version)

Specifications Subject to Change without Notice





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