3-Dimensional Current Meter

A high-accuracy meter with vector-averaged current speed and direction

The Falmouth Scientific, Inc. 3-Dimensional Acoustic Current Meter delivers extremely precise, three-axis velocity measurements in a defined free field. The 3D ACM uses the most accurate and stable current measurement techniques available today and is configured with standard features that are options on competitive instruments. The instrument incorporates an internal flux-gate compass and tilt sensors to provide true current vector direction. The unit's compact size and light weight make the 3D ACM well suited for multiple meter arrays. Windows-based software for meter set-up, data collection and data analysis make the 3D ACM very user-friendly.



3D ACM with optional 3 ton frame

FEATURES

- 3-axis velocity measurement
- 0 - 300 cm/sec current speed range
- Velocity accuracy ±2% of reading
- 3-axis fluxgate magnetometer with 2-axis tilt sensor
- Extended deployments with standard C-cell batteries
- High-accuracy temperature measurement
- Simultaneous real-time output and logging capability
- ASCII serial data output via RS-232 (optional RS-485)
- Built-in real-time clock with power control
- 1.0 megabyte internal memory standard (higher capacity available)
- 1.5-ton working strength 316 S.S. mooring frame (3-ton optional)
- 1000 meter standard operating depth (full ocean depth optional)
- Averaged and/or burst data output
- High-accuracy conductivity, temperature, and depth sensor package available
- Analog DC channel inputs for external sensors (e.g. turbidity, oxygen)

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SPECIFICATIONS

Sensors

Parameter	Type	Range	Accuracy	Resolution
Velocity	Acoustic	0 to 300 cm/s	±2% of Reading or 1 cm/s	0.01 cm/s
Direction	3 Axis Fluxgate	0 to 360°	±2°	0.01°
Tilt	2 Axis Accelerometer	0 to 30°	±0.5°	0.01°
Temperature	Thermistor	-2 to 35°C	±.5°C ±0.05°C*	0.01°C
Pressure*	Precision Machined Silicon	User specified	±0.15% full scale	0.02% full scale

*Optional

Instrument

External Power: 7 to 24 VDC @ 10 mA

Sample Rate: 2 Hz Maximum

Vector Averaging Period: 15 Seconds to 1 Hour

Depth Rating/Physical Material: 1000 Meter Phenolic and 7000 Meter Titanium Housings Available

Mooring Frame: 1.5 Ton 316 Stainless Steel Mooring Frame (standard)
3 Ton Stainless Steel Mooring Frame (optional)

Clock: Programmable Alarm/Sleep Functions

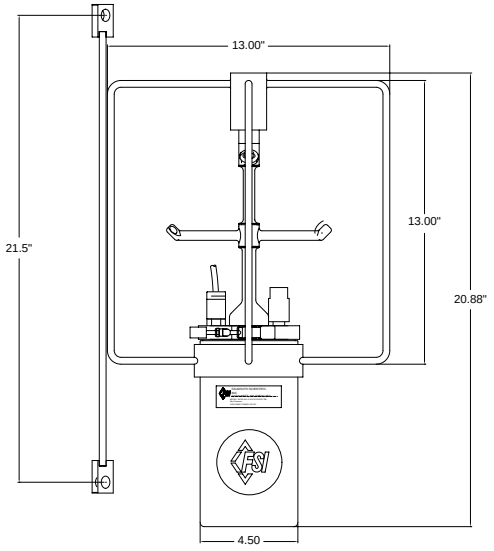
Internal Memory: 1.0 MB Standard
4.0 MB Optional

Weight:

1.5 Ton Standard Cage - Air: 14.0 lbs/6.4 kg
Water: 6.5 lbs/3.0 kg

3 Ton Optional Cage - Air: 18.1 lbs/8.2 kg
Water: 12.1 lbs/5.5 kg

Specifications Subject to Change without Notice



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