



ShortBoard Model 1000

Portable Area Velocity Flow Meter



Simple, Reliable, Proven

The compact and lightweight FloWav ShortBoard Model 1000 Area Velocity Flow Meter combines proven area velocity measurement technology with proven local RTU technology to provide a cost-effective, accurate and reliable way to measure flows in even the harshest open channel flow applications.

Measurement Technology

The ShortBoard Model 1000 comes with the Pipeline PSA-AV sensor, a fully integrated, state-of-the-art, area velocity sensor.

The Pipeline PSA-AV sensor combines proven continuous wave Doppler measurement technology with the signal processed utilizing state-of-the-art Progressive Spectral Analyzer* technology to provide an accurate, reliable, and low power consumption way to measure velocity for most open channel flow applications.

The Pipeline PSA-AV utilizes a ceramic pressure depth sensor which will not deteriorate in the hostile and corrosive sewer environment.

The ShortBoard Model 1000 has the capability to utilize either a second Pipeline PSA-AV sensor or a downward looking ultrasonic sensor for even more capability and flexibility for metering in the complex, real world conditions frequently encountered when installing equipment in harsh flow metering applications.

Low Power Consumption

The ShortBoard Model 1000 is powered from a single, 6-volt lantern battery providing an operating life of six months to three years depending on sensor configuration, data sampling and download frequency. An extended life battery option is available.

Applications

The ShortBoard Model 1000 is ideal for sewer flow metering, I/I studies, sanitary sewer evaluation surveys, combined sewer overflow (CSO) and storm water monitoring. Customized installation hardware available.

*PSA-patent pending Progressive Spectral Analyzer technology



ShortBoard Model 1000

- Lowest cost portable area velocity meter
- Most advanced sensor technology available
- Easy to use
- Flexibility in type and quantity of sensors dependent on site conditions
- Low power consumption
- Compact and lightweight
- Optional rain logger

Applications

- I/I Studies
- Sewer Flow Metering
- Irrigation Systems
- CSO Monitoring
- Storm Water



**ShortBoard Model 1000**

Model Type:	Area Velocity Flow Meter
Sensor Inputs	One or two sensors, any combination
	2x Pipeline model PSA-AV
	Pipeline model PSA-AV + M-30 Ultrasonic Depth Sensor
Data Recording	Sample Rate: 3/sec up to 8 hours, each channel
	Data Interval: 3/sec up to 8 hours, each channel
Memory	Size: 512 kbytes RAM; 220 kbytes Data Storage
	Storage Method: wrap-around (first-in, first-out)
	Data Capacity: dynamically allocated to active channel
	Sensor Channels: 50,000 values per channel
Communications	Local RS-485
	5-pin circular connector rated IP67
Battery	Factory installed single 6V alkaline lantern battery
	Eveready Energizer Model 529
Battery Life Examples	Sample Rate: 5 minutes
	Battery Life: 1 to 4 months
	Sample Rate: 15 minutes
	Battery Life: 3 to 12 months
External Power	9 to 15 Vdc @ 1 A maximum
Enclosure	4.5 inch dia by 15.4 inch high
	Weight: 7 pounds
	Material: PVC
	Rating: IP67 (NEMA 6) submersible
Temperature	0 to 70 deg C
Software	S-3PC Telogers for Windows
	DTU Palm Pilot with Telog software

Area Velocity Sensor

Model Type	Pipeline Model PSA-AV, Area Velocity
Material	Epoxy encapsulated PVC housing
Dimensions	0.90 by 1.85 by 6.0 inch (height by width by length)
Cable	Urethane sensor cable with air vent
	35 feet (custom lengths available on request)
Velocity Sensor	Doppler ultrasonic, twin PZT disks
	Operating Temperature: 32 to 160 deg F
	Typical minimum depth: 0.90 inch
	Operating Range: -5 to +20 ft/s
	Accuracy: +/-2% of reading
Pressure Sensor	Pressure Sensor with Ceramic Diaphragm
	Type: Ceramic Piezoresistive
	Range: 0 to 15 feet
	Maximum Allowable Range: 45 feet
	Accuracy: +/-0.25% full scale
	Compensated Range: 40 to 90 deg C

Optional Ultrasonic Level Sensor

Model Type	M-30 Ultrasonic Level Sensor
Material	PVC, Custom PPA
Dimensions	1.90 by 3.08 inch (diameter by length)
Cable	5 conductor 22 AWG, PVC jacket
Cable Length	35 feet (custom lengths available on request)
Connector	8-pin circular connector rated IP67
Frequency	95 khz, nominal
Beam Angle	8 degrees conical
Operating Range	1 to 15 feet
Resolution	0.01 inch
Temperature	-4 to 149 deg F

Other Options

Extended Power	Extended battery enclosure
	x2 Eveready Energizer Model B

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