

VANTAGE® 6000



**A NEW
GENERATION
OF PORTABLE
TRANSIT-TIME
FLOWMETERS**



VANTAGE® 6000

THE LATEST ADVANCE IN HANDHELD FLOW MEASUREMENT

A high precision, industrially hardened NEMA 4, 4X portable flowmeter for temporary flow measurement applications ranging in pipe diameters from 1" to 300"

Doubly protected by a NEMA 4, 4X molded polyamide enclosure encased within a polyurethane shock resistant boot, the state-of-the-art electronics of the Vantage 6000 employs IEEE 754 single point precision technology to deliver the highest degree of flow measurement accuracy available in the industry today. Weighing only 4 pounds and powered by a 9.6 VDC rechargeable battery allowing for up to 5 hours of uninterrupted operation, a multitude of temporary flow measurement requirements can be quickly and simply satisfied with the new 6000 Series handheld.

A large, easy to view 160 x 128 pixel backlit display provides accurate and timely data for instantaneous or extended graphical analysis of varying flow parameters. Simplistic drill-down programming capability, combined with 5-minute Speedrail® sensor installation, offers field operating personnel the fastest and easiest solution for applications requiring the temporary measurement of flow.



ACCURACY & SIMPLICITY

The high precision accuracy of the NEMA 4, 4X industrially hardened Vantage 6000 is achieved through a coupling of IEEE 754 single floating point precision mathematics and field proven chordal velocity measurement principals. This exclusive Eastech Badger technique substantially reduces the disturbing effects of noise while greatly improving time differential measurements.

Accuracy: $\pm 0.5\%$ of actual flow • **Repeatability:** 0.25% • **Rangeability:** 40 to 0.1 • **Turndown:** 400:1

PROGRAMMING VALIDATION	
PIPE SIZE:	16 IN.
PIPE MATERIAL:	DUCTILE
FLOW MEDIA:	WATER
MAX PRESSURE:	100 PSI
FLOW DIRECTION:	UNI-DIR

DRILL-DOWN PROGRAMMING

An extremely logical and simple to initiate drill-down menu structure allows for fast programming of the Vantage 6000. A large backlit LED display, combined with a 24 specific application button keypad and self-explanatory menu driven entry screen, provides operating personnel with an easy to follow, step-by-step method for programming multiple applications. Common pipe sizes and schedules are stored in memory. Varying application parameters are quickly entered through clearly understandable data entry screens, which in turn graphically display sensor mounting methods and sensor separation.



COMPREHENSIVE DATA LOGGING

For flow measurement applications requiring extended periods of time, graphical analysis displays are provided that exhibit the stored logger data in quickly recognizable pre-programmed time intervals. Flash memory is employed for logging of flow data. A maximum of 32,000 data points, including flow rate, velocity and forward or reverse totalizer values, are stored in battery backed-up memory. The logged data may be graphically viewed on the screen of the handheld or electronically downloaded to a PC from the RS 232 port of the Vantage 6000.



SPEEDRAIL® SENSOR INSTALLATION

A 5-minute Speedrail® sensor mounting system is provided with the Vantage 6000. In 2 simple steps, mounting of both sensors is quickly and easily accomplished without the necessity for hand tools. Once the proper sensor mounting method is ascertained from the graphic display on the screen of the 6000, the entire mounting operation should be completed in approximately 5 minutes.

**HIGHLY ACCURATE
PORTABLE FLOW
MEASUREMENT FOR
FULL PIPE LIQUID
APPLICATIONS
FROM 1" TO 300"**

DESIGN INTEGRITY

- Accuracy: $\pm 0.5\%$ of actual flow
- Repeatability: 0.25%
- Rangeability: 40 to 0.1 ft/sec.
- Turndown: 400:1



SIMPLE PROGRAMMING

- Large backlit LED display
- Drill-down menu structure
- 24 button keypad
- Step-by-step programming assistance



ENHANCED DATA LOGGER

- 32,000 data points
- Graphical analysis displays
- RS 232 download capability
- Extended period data logging



QUICK INSTALLATION

- 5-Minute Speedrail® Installation
- Graphic display mounting Instructions
- No hand tools required
- Compatible with various pipe material



VANTAGE® 6000 PORTABLE HANDHELD FLOWMETER

ORDERING GUIDE



Portable Flowmeter	Sensors	Sensor Cable
6000		
1 Handheld Meter	Pipe Diameter 1" - 12" V30 SP	Standard (10' Length) A
2 Speedrails®	Pipe Diameter 4" - 300" V30 LP	Optional (30' Length) B
1 Battery Recharge Cable		
1 RS232 Interface Cable		
1 Ext. Battery Cable		
1 Sonic Coupling Compound	Pipe Diameter 1" - 300" V30 AP	
1 Shock Resistant Carrying Case		

COMPONENT SPECIFICATIONS

HANDHELD METER

Enclosure	NEMA 4, 4X, Polyamide
Protective Boot	Shock Resistant Polyurethane
Dimensions	11" x 5.5" x 3.5"
Weight	4 lbs.
Temp. Rating	32° to 160°F
Humidity Rating	5 to 95%
Built-in Battery	9.6 VDC (5 hr. cont. operation)
External Power Adapter	115 to 230 VAC
Display	160 x 128 pixels (backlit)
Keypad	24 button
Power Down Backup	RAM memory (10 years)



PERFORMANCE (forward and reverse flow)

Accuracy	±0.5% of actual rate of flow
Repeatability	0.25%
Linearity	± 0.5%
Rangeability	40 to 0.1 ft./sec.
Turndown	400 : 1

SPEEDRAIL® MOUNTING SYSTEM

Speedrails	Anodized Aluminum
Mounting Chain	Stainless Steel
Pipe Diameter	Standard (1" - 12") V or Z-shot Optional (4" - 300") V or Z-shot



ACOUSTIC SENSORS

Materials of Const.	Utem®/Anod. Alum.
Sensor Cable	10' (standard) 30' (optional)
Temperature Rating	-30° to 180°F
Environmental Rating	NEMA 4, 4X, Nonincendive
Measurement Range	1" - 12" pipe dia. (standard) 4" - 300" pipe dia. (optional)



ACCESSORIES

Battery Recharge Cable
RS232 Interface Cable
External Battery Adapter Cable
Laminated Operating Manual
Dow Corning Sonic Coupling Compound

