

# **VANTAGE**®

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 uninteruptable 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**

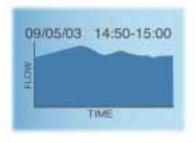
The high precision accuracy of the NEMA 4, 4X industrially hardened Vantage 6000 is achieved through a coupling of IEEE 754 single floating point precision mathematics and field proven chordal velocity measurement principals. This exclusive Eastech Badger technique substantially reduces the disturbing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

Accuracy: ± 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 PLOW MEDIA: WATER MAX PRESSURE: 100 PSI FLOW DIRECTION: UNI-DIR

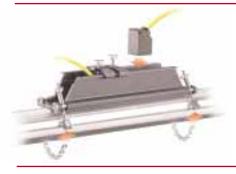
#### **DRILL-DOWN PROGRAMMING**

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: ± 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                            | Pipe Diameter              | Standard                 |
| 1 Handheld Meter                | 1" - 12"<br><b>V30 SP</b>  | (10' Length)             |
| 2 Speedrails®                   | 1303.                      |                          |
| 1 Battery Recharge Cable        | Pipe Diameter              | Optional                 |
| 1 RS232 Interface Cable         | 4" - 300"<br><b>V30 LP</b> | (30' Length)<br><b>B</b> |
| 1 Ext. Battery Cable            |                            |                          |
| 1 Sonic Coupling Compound       | Pipe Diameter              |                          |
| 1 Shock Resistant Carrying Case | 1" - 300"<br><b>V30 AP</b> |                          |

# **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.         | Ultem®/Anod. Alum.             |
|-----------------------------|--------------------------------|
| Sensor Cable                | 10' (standard)                 |
|                             | 30' (optional)                 |
| Temperature Rating          | -30° to 180°F                  |
| <b>Environmental Rating</b> | 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



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