

DESCRIPTION

The submersible, portable METER-MASTER MODEL 100EL Flow Recorder uses a magnetic sensor to digitize a meter's magnetic drive signal and then logs the pulse count into memory. No electrical or mechanical connection is required. It is compatible with large and small water meters worldwide and small enough to fit inside most residential meter boxes. A standard pulse input capability enables logging from meters which offer a pulse output capability.

The Model 100 Program software provides a variety of report and graph options. Data may easily be exported into the MeterSizer and Trace Wizard software accessories and into widely used software such as Excel® and Word®.

Meter-Master set-up in the field requires only a velcro strap to secure the sensor in position. Typically, the sensor is placed on the side of the water meter's register with the sensor cable going straight up or down. A small number of meters have different sensor locations. A rocker switch toggles the recording on/off. An LED signal light verifies accurate recording. The front of the Model 100EL has stainless steel receptacles for cable connections to the sensor, battery charger, and computer.



FEATURES

- **Quick/Easy Setup**
- **Portable**
- **Rugged**
- **High Resolution**
- **Securable**
- **Submersible**
- **Accuracy Verification**
- **RF Communications**
- **Standard Pulse Input**
- **Dual Memory Options**
- **Universal Compatibility**

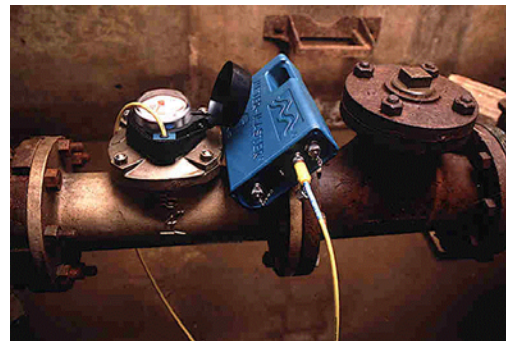
APPLICATIONS

- **Customer Service**
- **Billing Disputes**
- **Meter Sizing**
- **Meter Maintenance**
- **Conservation**
- **Hydraulic Modeling**
- **Demand Monitoring**
- **Cost of Service Studies**
- **Water Audits**

Specifications on second page ...

MODEL 100EL SPECIFICATIONS

- **Size:** 8.6" x 5.4" x 2.1" (225 mm x 139 mm x 54 mm).
- **Weight (including internal batteries; excluding cables):** 3.75 lbs. (1.7 kg).
- **Case With Integral Handle:** Submersible, ABS/polycarbonate blend. Handle may be used to chain unit for security.
- **Stainless Steel Threaded Connectors.**
- **Recording On/Off Via Rocker Switch.**
- **Test Of Sensor Location Initiated By Pressing Rocker Switch ON.** Because rocker switch automatically returns to middle position when turned on, a new sensor test may be initiated at any time.
- **Strap-On Magnetic Sensor:** fastens to outside of meter with velcro straps provided.
- **Computer, Minimum Requirements:** receptacle for RS232 cable (9 pin); Windows (3.1, 3.11, 95, 98, 2000, ME, XP or NT); Pentium processor; 16MB RAM; 100MB free hard disk space. (Program files use 12MB of hard disk space; swap space plus real memory should be at least 30MB.)
- **Variable Data Storage Interval.** 4 interval settings: 5, 10, 30, and 60 seconds.
- **Data Storage Capacity:** 130,000+ intervals. Provides the following recording periods: 5 second interval = 7.5 days ; 10 sec. = 15 days; 30 sec. = 45 days; 60 sec. = 90 days. Recording stops when memory is used up; unit will not overwrite. Double memory available as an option.
- **Dual Memory Option:** Low resolution memory partition available for continuous recording of 15, 30, or 60 minute volumes in ASCII format.
- **RF Communications Ready:** Individually addressable in a wireless bus environment.
- **Low Battery Power-Down:** automatically stops recording and powers down when battery is low to preserve recorded data and avoid battery damage. Power-down is indicated by a 6 second alternating long-short flash on the Meter-Master rocker switch LED when the switch is toggled ON from the OFF position.
- **Internal Power:** 2 rechargeable lead-acid, 2 volt, 5 ampour batteries. Internal battery life (approx.): 3+ months on each charge. Relief valve allows battery gases to escape when overcharging occurs.
- **AC Operation via Battery Charger.**
- **External Battery Operation through Battery Charger Receptacle:** an external battery may be used to increase the continuous operating time. (A 6 volt, 33 ampour battery is available as an accessory.)
- **Overnight (14 hours) Battery Charging.**
- **Capacity to Make 20 Records:** recording can be started/ stopped 20 times before downloading. Brief records (shorter than one data storage interval) are ignored.
- **Downloaded Data Accuracy Verification:** software compares the register volume (difference between beginning and ending meter readings) to the recorded Meter-Master volume (total pulse count multiplied by actual meter pulse factor in database as supplied to F. S. Brainard & Company by the meter manufacturers).
- **Recording Accuracy Verification in the Field:** flashing LED signal light integral to "on" side of rocker switch verifies accurate sensor location based on preset meter specifications. (Initialized settings for the meter affect only the sensor test; they are not used for the recording of data or generation of reports.)
- **Auto Shut-Off of LED:** sensor test ends after 30 flashes. Test can be reinitiated without affecting recording status by pressing the ON side of the switch again.
- **"Realtime Display" Option:** provision to view 3-D graphic display of current flow through meter (cumulative volume and rate updated each second).
- **AccuRate Software:** A unique software feature which removes false data oscillations caused by slow pulse rates during periods of steady flow.
- **Units of Measure Supported:** Gallons, Cubic Feet, Cubic Metres, Litres, and Imperial Gallons.
- **Two Year Warranty.**



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