

# Model 1400 Battery Operated Flow Meter And Flow Sensor System

The Data Industrial Series 1400 Flowmeter is a battery operated monitor that displays both flow rate and flow total. Rate is displayed on a  $4^{1/2}$  digit LCD while total is recorded on a 7 digit mechanical totalizer.

The 1400 Series is intended for use with a new series of sensors designated the M-Series and **is not** compatible with 200 or 4000 Series sensors. M-Series sensors are available as brass or stainless steel insert sensors, hot tap styles; and bronze or PVC Tee mounted sensors.

The 1400 display is housed in a rugged cast aluminum enclosure with a sealed acrylic faceplate. The flowmeter is tested to a submerged depth of six feet, and meets or exceeds the NEMA 6P Immersion Test.

The 1400 display may be mounted directly on the insert sensor, either in a horizontal or vertical orientation, or remotely mounted on pipe or wall using a connecting cable.

The 1400 is powered by a "C" size lithium battery that may be replaced in the field. Battery life normally will average 3 to 5 years dependent on flow rate and totalizer update rates.

The 1400 may be calibrated for any English or Metric unit of measure in pipe sizes from 1" (25mm) to 20" (500mm) by entering scaling factors on a series of switches.

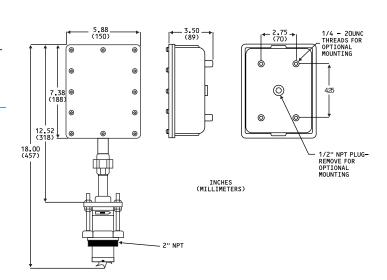
### **Product Features**

- Battery powered using lithium "C" cell with 3 to 5 year life, dependent on usage.
- Watertight Integrity enclosure passes NEMA 6P immersion test.
- 3. Displays rate of flow and total flow, field scalable for both.
- 4. Field calibrated to any pipe size between 1" and 20" via switch settings.
- 5. Variety of mounting options: On the sensor either vertically or horizontally; or remote on wall or pipe.

### **Applications**

- Water Monitoring or Remote Irrigation Sites
- Groundwater Monitoring
- Water Auditing
- Portable Meter for Survey Work
- Remote Industrial Flow Monitoring





### **Specifications**

#### **Dimensions:**

— 5.88 (150mm) W x 7.38 (188mm) H x 3.50 (89mm) D

#### Weight:

— 4 lbs. - Display Only - with 220MB sensor - 8 lbs.

#### **Case Construction:**

Cast aluminum, acrylic cover

#### **Operating Temperature Range:**

— 14°F (-10°C) to 140°F (60°C)\*

#### **Storage Temperature Range:**

— -4°F (-20°C) to 140°F (60°C)\*

#### **Calibration Ranges:**

-20 ft/sec fluid velocity

#### **Accuracy:**

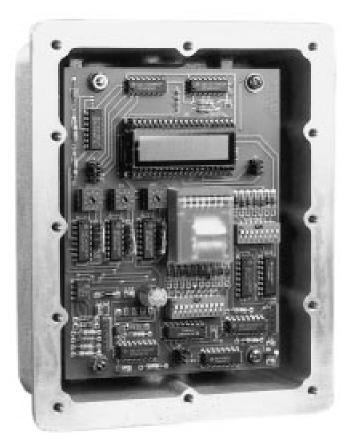
± 1% of full scale with factory calibration;
field calibration to ± 0.5% of actual

#### Linearity:

— ± 1% over 20:1 turndown ratio

#### **Battery Life:**

- 3 5 years average, dependent upon mechanical totalizer pulse rate
- \* Lower Range Available on Special Order



### **M-Series Sensors**

M-Series sensors use a magnetic detection principle. Except for the detection principle adaptation, they are the same as Data Industrial 200 series sensors.

Dimensionally they are identical to the 200 Series with the exception of the output cable which is 4 inches long and terminates in a watertight connector. All insert sensors also include a pipe nipple and union head for mounting the 1400 display. All materials of construction are identical to the 200 Series Sensors.

#### **Available Models:**

**250MB** — Removable Sensor mounted in cast bronze tee with Female NPT threads. Available pipe sizes: 0.5", 0.75", 1", 1.25", 1.5", for metallic pipelines and low flow applications.

**220MP** — Removable sensor mounted in Schedule 80 PVC Tee with socket ends. Available pipe sizes: 1.5", 2", 3", 4". For use with all schedules and classes of PVC pipe.

**220MB** — Insert style Brass Sensor mounts in 2" Saddle or Tredolet® for all pipe materials and Sizes 3" and larger.

220MSS — Same as above in Stainless Steel.

**225MB** — Brass insert style hot tap sensor with Brass Gate Valve: 2" NPT.

**226MB** — Brass insert style hot tap sensor with Brass Ball Valve: 2" NPT.

**226MSS** — Stainless Steel insert style hot tap sensor with Ball Valve: 2" NPT.

### **Ordering Information**

#### 1401

 Display w/bronze union tail & nut for use with brass sensors.

#### 1402

 Display w/stainless steel union tail & nut for use with stainless steel sensors.

#### 1403

 Display w/no union for remote mount or tee type sensors.
Requires extension cables.
Cannot be mounted on sensor.

## Extension Cables 07101

 5 foot extension cable with connector for remote mount.

#### 07102

 20 foot extension cable with connectors for remote mount.

#### 59207

Replacement battery 3.7 volt lithium "C" cell.

