EX90-SERIES
ELECTROMAGNETIC INSERTION
FLOW SENSOR

APPLCIATIONS
Municipal water
Water/Wastewater treatment
Reuse/Reclaim water
Industrial processes
Cooling towers
Pump towers
Dewatering

Features
• No moving parts
• Economical
• Durable
• Easy to install
• Easy to maintain
• Pulse Output Standard

The EX90-series battery powered, insertion electromagnetic flow meter is designed for use with conductive fluids in 4”–12” pipe. The EX90’s stainless steel body allows the meter to operate in a wide range of temperatures, pressure, and corrosive or dirty environments.

The EX90 is highly suitable for difficult applications. With no moving parts, these meters can be used in “dirty water” applications where debris would foul a mechanical meter. If the EX90 meter is used with a programmable controller, the output signal can be fed direct, with no other conditioning required.

Rate and total units can be set via the front panel touch key pad by the user. Bidirectional flow is standard with totals available in forward, reverse, net, batch forward and batch reverse.

The EX90 is battery powered and an output cable is available for transmitting the pulse signal to remote devices. The EX90 includes a Seametrics saddle which has been designed to accommodate a wide range of pipe sizes and types while ensuring correct placement in the pipe. In addition, an optional internal data logger allows local storage of flow history.

Contact Your Supplier

253.872.0284
seametrics.com
EX90-SERIES
ELECTROMAGNETIC INSERTION
FLOW SENSOR

Specifications*

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>4&quot; to 12&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
<td>Sensor Body</td>
</tr>
<tr>
<td></td>
<td>Electrodes</td>
</tr>
<tr>
<td></td>
<td>Housing</td>
</tr>
<tr>
<td></td>
<td>Electrode Cap</td>
</tr>
<tr>
<td></td>
<td>O-Ring</td>
</tr>
<tr>
<td>Temperature</td>
<td>Operating</td>
</tr>
<tr>
<td></td>
<td>Storage</td>
</tr>
<tr>
<td></td>
<td>Fluid Temp.</td>
</tr>
<tr>
<td>Pressure</td>
<td>200 psi (14 bar)</td>
</tr>
<tr>
<td>Flow Rate</td>
<td>0.5 - 4.5 m/sec (1.64 - 14.8 ft/sec) (Low flow cutoff .15 m/sec .49 ft/sec)</td>
</tr>
<tr>
<td>Calibration</td>
<td>Accuracy</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Display</td>
<td>Type</td>
</tr>
<tr>
<td></td>
<td>Digits</td>
</tr>
<tr>
<td></td>
<td>Units</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Please Note:</td>
</tr>
<tr>
<td></td>
<td>Gallons</td>
</tr>
<tr>
<td></td>
<td>Liters</td>
</tr>
<tr>
<td></td>
<td>Cubic Feet</td>
</tr>
<tr>
<td></td>
<td>Cubic Meters</td>
</tr>
<tr>
<td></td>
<td>Million Gallons¹</td>
</tr>
<tr>
<td></td>
<td>Mega Liters¹</td>
</tr>
<tr>
<td></td>
<td>Million Imperial Gallons¹</td>
</tr>
<tr>
<td></td>
<td>Second</td>
</tr>
<tr>
<td></td>
<td>Minute</td>
</tr>
<tr>
<td></td>
<td>Hour</td>
</tr>
<tr>
<td></td>
<td>Day</td>
</tr>
<tr>
<td>Bidirectional</td>
<td>Forward Total, Reverse Total, Net Total, Batch Forward, Batch Reverse</td>
</tr>
<tr>
<td>Power</td>
<td>One lithium 7.2V 'D' size battery pack, replaceable.</td>
</tr>
<tr>
<td>Scaled Pulse Output</td>
<td>Signal</td>
</tr>
<tr>
<td></td>
<td>Pulse Rates</td>
</tr>
<tr>
<td>Cable</td>
<td>Optional Output Cable</td>
</tr>
<tr>
<td>Conductivity</td>
<td>&gt;20 microSiemens/cm</td>
</tr>
<tr>
<td>Empty Pipe Detection</td>
<td>Hardware/software, conductivity-based</td>
</tr>
<tr>
<td>Regulatory</td>
<td>C (EN 61326) Pending</td>
</tr>
<tr>
<td>Environmental</td>
<td>IP67</td>
</tr>
</tbody>
</table>

* Specifications subject to change. Please consult our website for the most current data (seametrics.com).

¹ Rate Time Unit is available in Day only.
Kynar is a registered trademark of Arkema, Inc.

Flow Range*

<table>
<thead>
<tr>
<th>Nominal Pipe Size</th>
<th>4“</th>
<th>6“</th>
<th>8“</th>
<th>10“</th>
<th>12“</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Flow Cutoff GPM</td>
<td>19.3</td>
<td>43.11</td>
<td>77.1</td>
<td>120.5</td>
<td>173.5</td>
</tr>
<tr>
<td>Low Flow Cutoff LPS</td>
<td>1.22</td>
<td>2.72</td>
<td>4.86</td>
<td>7.6</td>
<td>10.95</td>
</tr>
<tr>
<td>Min GPM</td>
<td>64.3</td>
<td>144.6</td>
<td>257</td>
<td>401.6</td>
<td>578.3</td>
</tr>
<tr>
<td>Min LPS</td>
<td>4.1</td>
<td>9.1</td>
<td>16.2</td>
<td>25.3</td>
<td>36.5</td>
</tr>
<tr>
<td>Max GPM</td>
<td>578</td>
<td>1301</td>
<td>2313</td>
<td>3614</td>
<td>5204</td>
</tr>
<tr>
<td>Max LPS</td>
<td>36.5</td>
<td>82.1</td>
<td>145.9</td>
<td>228</td>
<td>328.3</td>
</tr>
</tbody>
</table>

Upstream straight pipe is selected during initial setup. Upstream options are 5X or 10X the diameter and are based on the amount of straight pipe available in either new or propeller meter replacement installation. Downstream straight pipe requirement is 2X the diameter. See programming setup for details.
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Features

- Hinged Display Cover
- User access lid
- Output cable port access
- Equalization lug
- O-ring, EPDM
- PVDF electrode cap

- Rate and total indicator with light sensor button controls
- Data logger connector (optional)
- Powder-coated diecast aluminum electronics housing
- Sensor body (Stainless)
- Hastelloy electrodes

Battery Powered
Bidirectional Flow Reading
Pulse Scaled Output
Built-in Data Logger (Optional)

Quickly and easily change Total Volume Units, Flow Rate Units, Pulse Output Scaling, and many other settings using the two light sensor button controls on the display panel.

Dimensions

Each saddle has a range of actual pipe size O.D. that it will work with. When you order your meter, you will specify the nominal pipe size and the saddle provided will work with the following actual pipe O.D.

<table>
<thead>
<tr>
<th>Saddle Size</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;</td>
<td>4.00&quot; - 4.90&quot;</td>
</tr>
<tr>
<td>6&quot;</td>
<td>6.00&quot; - 6.90&quot;</td>
</tr>
<tr>
<td>8&quot;</td>
<td>8.00&quot; - 9.05&quot;</td>
</tr>
<tr>
<td>10&quot;</td>
<td>10.00&quot; - 11.10&quot;</td>
</tr>
<tr>
<td>12&quot;</td>
<td>12.10&quot; - 13.20&quot;</td>
</tr>
</tbody>
</table>

Consult factory if your OD does not match.
EX90-SERIES
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How to Order Worksheet

EX90

1. Size
2. Power
3. Optional Output
4. Options
5. Power/Output Cable

<table>
<thead>
<tr>
<th>Size</th>
<th>Power</th>
<th>Optional Output</th>
<th>Options</th>
<th>Power/Output Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0400</td>
<td>-BX</td>
<td>-X (requires single cable for pulse output)</td>
<td>-XX None</td>
<td>-0000 No Cable (customer will supply)</td>
</tr>
<tr>
<td>-0600</td>
<td>-BX</td>
<td>-X</td>
<td>-01 Data Logger</td>
<td>-006S 6 meter (20 ft)</td>
</tr>
<tr>
<td>-0800</td>
<td>-BX</td>
<td>-X</td>
<td></td>
<td>-015S 15 meter (50 ft)</td>
</tr>
<tr>
<td>-1000</td>
<td>-BX</td>
<td>-X</td>
<td></td>
<td>-030S 30 meter (100 ft)</td>
</tr>
<tr>
<td>-1200</td>
<td>-BX</td>
<td>-X</td>
<td></td>
<td>-045S 45 meter (150 ft)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-060S 60 meter (200 ft)</td>
</tr>
</tbody>
</table>

Note: All meters are factory set for gallons per minute (GPM) rate and gallons total. If other units are required, they can be programmed in the field.

Note2: Saddle included with meter.

Note3: The EX90 can be externally powered by connecting DC power with the power/output cable. Batteries then serve as backup power.

For chemical or fertilizer injection applications, the injection point must be placed downstream of the meter or far enough upstream for complete mixing to occur before the flow reaches the meter. (See fertigation technical bulletin on Seametrics website, seametrics.com.)

Easy New Installation

Easy Propeller Meter Replacement Installation