Ultra Mag®
Electromagnetic Flow Meter

Flow Measurement Solution for Water and Wastewater
The Ultra Mag® from McCrometer is an electromagnetic flow meter designed specifically for the water and wastewater industry measuring liquids, slurries and sludge. With a wide flow range, no head loss, and no maintenance the Ultra Mag® delivers a highly accurate measurement you can count on.

Custom-Built Saving Time and Money

Only McCrometer offers a truly customized meter built to fit your application reducing labor during installation and ultimately saving you money.

We offer the following:
- Special lay lengths
- Flanged end connections (ANSI and AWWA)
- Meter or remote mounted converter
- Custom cable lengths up to 500 ft.
- Quick Connect sensor fittings to make installations easier

Applications

Clean Water
Well Water
Potable Water
Pump Stations
Rate-of-Flow Control
Raw Water Transmission

Industrial
Raw Water
Chilled Water
Cooling Water
Process Control
Effluent Wastewater

Wastewater
Influent
Effluent
Reclaimed
Lift Stations
Waste Activated Sludge
Return Activated Sludge
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• Special lay lengths
• Flanged end connections (ANSI and AWWA)
• Meter or remote mounted converter
• Custom cable lengths up to 500 ft.
• Quick Connect sensor fittings to make installations easier

Needs only 1 pipe diameter upstream of most flow disturbers (sizes 4” and larger)
No obstruction to the flow
No moving parts to wear or break
Maintenance free
Worry-free accurate measurement
Debris or solids will not clog the meter
No head loss
Bi-directional flow
Empty pipe detection
Unaffected by changes in density and viscosity
No risk of liner delamination or separation
Wide flow range
Separated power and signal cables

Superior Durability with Fusion-Bonded Ultraliner™

The fusion-bonded epoxy Ultraliner™ has been tested and certified by NSF. This unique liner is applied by using a fluidized bed method resulting in superior resistance against abrasion and corrosion for water and wastewater utilization. The liner provides a highly protective coating with non-conductive properties for outstanding electrical insulation.

Unlike other liners, the Ultraliner creates a seamless continuous barrier over the meter that will not delaminate, separate or collapse.

Certifications and Approvals

Listed by MET to 61010-1: Certified by MET to UL 61010-1 and MET C22.2 No. 61010-1-04

ISO 9001:2015 certified quality management system

Performance Advantages

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• No obstruction to the flow
• No moving parts to wear or break
• Maintenance free
• Worry-free accurate measurement
• Debris or solids will not clog the meter
• No head loss
• Bi-directional flow
• Empty pipe detection
• Unaffected by changes in density and viscosity
• No risk of liner delamination or separation
• Wide flow range
• Separated power and signal cables

Principles of Operation

The Ultra Mag is a non-invasive flow measurement device. It uses two compact, high density magnetic coils to generate an electromagnetic field inside the pipe section. As conductive liquid flows through the pipe, a voltage is created, which is measured by electrodes inserted through the flow meter lining into the flow. The voltage is converted to a flow rate reading by the Ultra Mag’s signal converter and shown on the digital display.
For over 55 years, McCrometer has demonstrated an unyielding commitment to integrity which is reflected in our stringent flow meter calibration processes. Each flow meter is individually wet calibrated in one of our two world-class NIST traceable calibration facilities and delivered with a Certificate of Calibration.

With two testing facilities in California, we have the flexibility to test flow meters that range from ½ inch to 72-inch in diameter. Our Calibration Test Lab, in Hemet, is equipped with gravimetric and volumetric systems, to test flow rates up to 4,000 gpm. Our Large Volume Test Facility, in Porterville, is one of the world’s largest volumetric systems, allowing us to test flow rates up to 60,000 gpm.

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**DIMENSIONS (Lay Lengths)**

<table>
<thead>
<tr>
<th>Meter Style (Nominal)</th>
<th>Meter Pipe ID</th>
<th>Flow Ranges GPM Standard .2 to 32 FPS Min - Max</th>
<th>DIMENSIONS (Lay Lengths)</th>
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<tbody>
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<td>A*</td>
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<td>Wafer style</td>
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<td>4&quot;</td>
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</table>

* Laying lengths for meters with ANSI Class 150 Flanges are equal to UM08 laying lengths
** For remote mount meters, add 4 lbs for ProComm converter.
*** Consult factory

**Use this for wafer style only**

**Grounding Rings are 0.125" thick.**