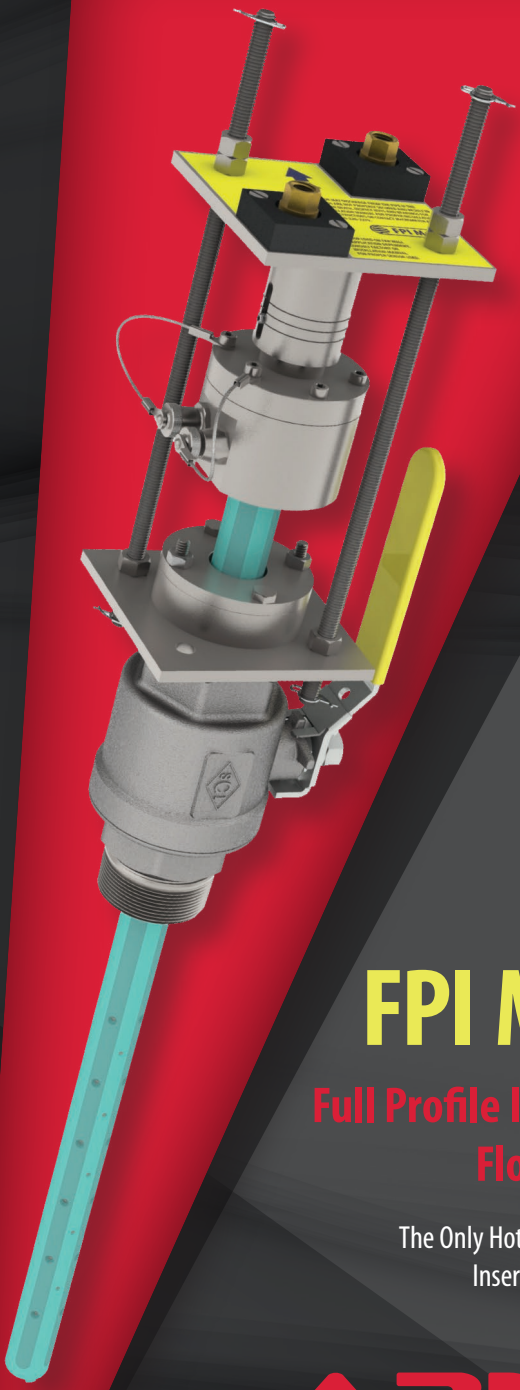


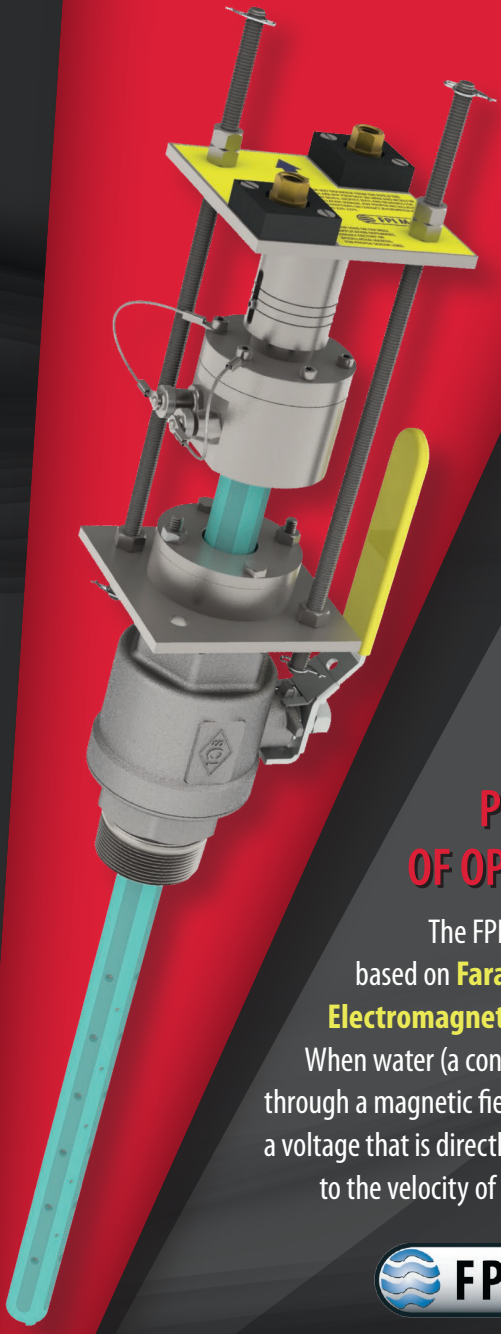
FPI Mag®

Full Profile Insertion Flow Meter

The Only Hot Tap Full Profile Insertion Mag Meter

ABLE

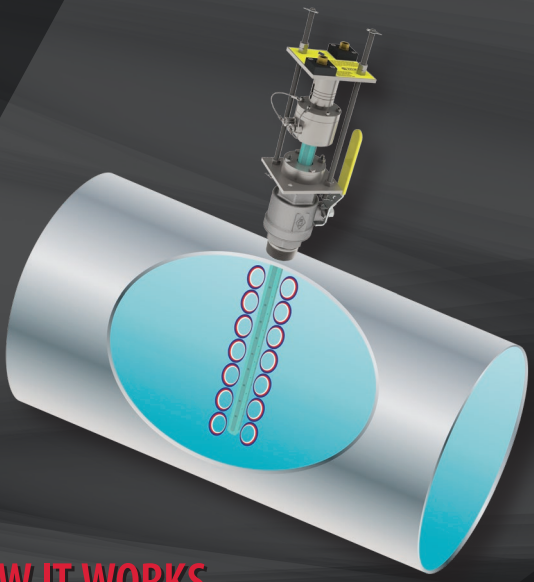
McCROMETER



PRINCIPLE OF OPERATION

The FPI Mag operates based on **Faraday's Law of Electromagnetic Induction**: When water (a conductor) moves through a magnetic field, it produces a voltage that is directly proportional to the velocity of the conductor.

FPI Mag®



HOW IT WORKS

1. Electromagnetic coils installed inside the entire length of the sensor produce magnetic fields
2. Stainless steel electrode pairs installed on the outside of the entire sensor length collect the induced voltage caused by the flowing water
3. The total voltage signal is then transmitted to the converter electronics where it is converted to an average flow velocity
4. The converter then multiplies this average flow velocity by the pipe's cross-sectional area to create a volumetric flow rate

FEATURES

Simple Installation

The insertion design of the FPI Mag allows for easy installation across a wide range of applications and pipe sizes. Hot Tap installation allows you to insert the meter without interrupting service, de-watering lines, cutting pipe or welding flanges.

Lower Costs

Customers save 45%+ on installation and the total cost of ownership. The FPI Mag eliminates the need for heavy equipment and manpower necessary to support installation.

Unmatched Accuracy

The FPI Mag's multi-electrode design and unique operating principle delivers accuracy unmatched by other insertion meters and rivals the performance of full-bore mag meters.

Robust Construction

With no moving parts, there is nothing to wear or break. The sensor body is made from heavy-duty 316 stainless steel for maximum structural integrity. The sensor body is hermetically sealed and protected by NSF certified 3M fusion-bonded epoxy coating.

Versatile

The FPI Mag is ideal for capital or maintenance projects, retrofits and sites never before metered. The unique combination of accuracy, ease of installation and total cost savings make the FPI Mag the perfect choice for a wide range of Municipal and Industrial applications.

Bidirectional also available

UNBEATABLE VALUE IN COST OF INSTALLATION AND OWNERSHIP

Ideal for Capital or Maintenance Projects, Retrofits and Sites Never Before Metered.

Municipal Water And Wastewater

The FPI Mag Full Profile Insertion Mag Meter supports the following water and wastewater treatment applications:

Water

- Distribution
- Effluent
- Pumping Stations
- UV Dosing
- Filter Balancing & Backwash
- Wells & Booster Stations

Wastewater

- Effluent
- Recycle/Reclaim

The FPI Mag is ideal for chilled water in campus style facilities, hospitals, airports, hotels, casinos, etc.

Industrial Facilities

The FPI Mag is also suitable for a variety of industrial facilities: power plants (including cogeneration), paper mills, chemical & petrochemical plants, metals & mining, and food & beverage.

Applications Include

- Cooling Water
- Fire Water
- Feed Water
- Raw Water
- Inlet to Surge Basin
- Effluent Wastewater

RIVALS THE PERFORMANCE OF A FULL-BORE MAG!

Multi-Electrode Design Delivers Accurate Full Profile Measurement With Repeatable Results.

Performance Specifications

Range: ..... 0.3 ft/s to 32 ft/s (0.1 m/s to 10 m/s)

Accuracy:..... ± 0.5% from 1 ft/s to 32 ft/s (0.3 m/s to 10 m/s)
± 1% from 0.3 ft/s to 1 ft/s (0.1 m/s to 0.3 m/s)

Linearity:..... 0.3% of reading

Pipe Sizes:..... 4" – 138" (100 mm to 3,500 mm)

Materials:..... 316 Stainless Steel Sensor Body, Insertion Hardware and Sensor Electrodes NSF Certified
3M Fusion-Bonded Epoxy Coating

Certificates And Approvals

Listed by CSA to 61010-1: Certified by CSA to UL 61010-1 & CSA C22.2 No. 61010-1-04

ISO 9001:2008 certified quality management

Converter

The FPI Mag utilizes our pre-programmed Converters*:

- Curve-fitting algorithm to improve accuracy
- Dual 4-20 mA analogue outputs*
- RS485 port for easy connection to DCS*
- HART* | Modbus* | Profibus*
- 8 line graphical LCD display
- 3 key touch programming

**To view video demonstration and to download the data sheet for full specifications, please visit: https://able.co.uk/product/flow/mccrometer-fpi-mag/*

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