



FARAMAG™

ElectroMagnetic Flow Meters

Fluid handling solutions for an array of applications



FLOW MAG METER



0.5" - 40" DIAMETER



145 - 580 psi



DIGITAL DISPLAY



INTERNAL DATA LOGGER



EASY & INTUITIVE INSTALLATION



HIGH PRECISION

H2flow Controls has over 20 years of specialist competence integrating flow management solutions for a variety of different industries. Our people and products have developed a reputation as some of the best in the business. Trust us to help improve your operational efficiency and reduce your operating costs.

KNOW THE FLOW™

The FaraMag™ series of flow meters from H2flow Controls use the electromagnetic principle to measure the flow of conductive liquids. There are no moving parts in contact with the liquid, meaning the flow meter isn't affected by any solid particles that may pass through the pipe, and there is no resulting pressure drop. The result? With FaraMag™ you will always Know the Flow™.

Quality Construction

FaraMag™ is constructed of carbon steel with a hard rubber lining (PTFE optional), which makes the product suitable for a wide range of applications - such as those commonly found in water, wastewater, oil and gas, process manufacturing, aggregate, and pharmaceutical industries. The product's quality construction is

complimented by a local display featuring instantaneous and total flow rates.

Versatility

Characterized by high accuracy and stability of flow rate measurement, FaraMag™ covers a flow range from 0.33 to 32.8 ft/s in both directions for liquids $\geq 10\mu\text{s/cm}$.

User-Friendly Display

Measured values are displayed on a large graphical display, a standard component of all FaraMag™ models. The display features a keypad and three programmable isolated outputs for remote transmission of featured values. Two of these outputs can be used as pulse or status outputs, while the third can be used as an active current output. The standard delivery also includes an internal data logger and RS232 communication port.

Scan to learn more about the FaraMag™ flow meter





KEY FEATURES & BENEFITS

- No moving parts, meaning no restriction on flow
- Bi-directional flow metering
- Compact and remote versions (cable length up to 98 feet)
- Intuitive controls
- Long operating life
- Ability to select preferred unit of measurement: GPM, LPM, m³/h
- Available for 0.5-inch to 40-inch pipe diameters, with larger sizes available upon request
- Pressure rated for 145 psi to 232 psi
- Available with ANSI or optional DIN flanges
- Flow range: 0.29 - 124,425 GPM
- Accuracy: 1.64 - 32.8 ft/s: ±0.25%
0.33 - 1.64 ft/s: ±1%

ADDITIONAL UNIQUE FEATURES OF FARAMAG™



SIZING

Available for a wide range pipe diameters



PROGRAMMABLE

Programmable active analog output



APPLICATION

Measurement of clean and waste water



DISPLAY

Features a large backlit display



COMMUNICATION

Various communication options, including RS232, RS485 and HART

USER-FRIENDLY FEATURES. CONVENIENT OPTIONS.

FaraMag™ mag meters are available in a variety of configurations; ensuring there's a model to fit your needs - whatever they may be.

Consider the FM500, available as either a compact model with mounted digital display, or as a remote version with Bluetooth™ communication.

Alternatively, the FM550 model features a separate sensor and converter with battery powered operation and USB input.

FARAMAG™ MODELS



FARAMAG™ FM500
(compact version)

Sensor and converter are the same mechanical unit

FEATURES

- Available for 0.5-inch to 40-inch pipe diameters. Contact for information about larger sizes.
- 145, 232, or 362 psi
- Inner lining in hard rubber or PTFE
- AISI 316L Stainless Steel or Hastelloy Measuring electrodes
- Liquid max temperature 194°F (90°C) for hard rubber, and 302°F (150°C) for PTFE
- IP65 rated converter. IP67 / IP68 rated sensor
- Voltage: 230VAC (standard); 12/24VAC / VDC (optional)
- Programmable active analog 4-20mA output



FARAMAG™ FM500
(remote version)

Separate sensor and converter from 32 to 98 feet

FEATURES

- Available for 0.5-inch to 40-inch pipe diameters. Contact for information about larger sizes.
- 145, 232, or 362 psi
- Inner lining in hard rubber or PTFE
- AISI 316L Stainless Steel or Hastelloy Measuring electrodes
- Liquid max temperature 194°F (90°C) for hard rubber, and 302°F (150°C) for PTFE
- IP65 rated converter. IP67 / IP68 rated sensor
- Voltage: 230VAC (standard); 12/24VAC / VDC (optional)
- Programmable active analog 4-20mA output



FARAMAG™ FM550
(autonomous version)

Separate measuring sensor and converter with connecting cable from 16 to 98 feet

FEATURES

- Available for 0.5-inch to 40-inch pipe diameters. Contact for information about larger sizes.
- 145, 232, or 362 psi
- Inner lining in hard rubber or PTFE
- AISI 316L Stainless Steel or Hastelloy Measuring electrodes
- Liquid max temperature 194°F (90°C) for hard rubber, and 302°F (150°C) for PTFE
- IP65 rated converter. IP67 / IP68 rated sensor
- Battery powered (included)
- Programmable active analog 4-20mA output
- Lithium battery powered with 5-10 years autonomy



FaraMag™ mag meters from H2flow Controls are available for pipe diameters as small as 1-inch and as large as 40-inch. The line is complemented by an array of communication options.

WHERE PRECISION MEETS RELIABILITY

Accuracy

FaraMag™ mag meters are ideal for many critical applications because of their incredible accuracy and reliability. Across the entire model range FaraMag™ flow meters boast a staggering 99.75% accuracy in operating conditions with 1.64 - 32.8 ft/s, and 99.0% accuracy in operating conditions with 0.33 - 1.64 ft/s.

Reliability

Like all H2flow Controls products, FaraMag™ mag meters offer uncompromising quality. Features such as AISI 316L Stainless Steel or Hastelloy Measuring electrodes; a carbon steel body, an IP67/IP68 rated sensor, and the option between a hard rubber or PTFE lining (capable of withstanding temperatures up to 194°F and 302°F respectively), demonstrate the devotion H2flow Controls has its exacting standards.

Flow Range

GPM	PIPE DIAMETER (inches)					
	0.5"	1"	2"	3"	4"	6"
Minimum	0.29	0.79	3.17	7.93	12.68	28.53
Maximum	29	79	317	793	1,268	2,853
	8"	10"	12"	14"	16"	20"
Minimum	50.72	79.25	111	152	198	317
Maximum	5,072	7,925	11,095	15,216	19,813	31,700
	24"	28"	32"	36"	40"	
Minimum	444	610	793	1,007	1,244	
Maximum	44,380	61,023	79,251	100,649	124,425	

* Please consult for additional sizes



Engineered for your application



H2flow Controls has a rich history of providing quality products to a multitude of fluid-handling markets. The FaraMag™ mag meter continues this tradition, by combining unparalleled quality and staggering accuracy with essential features and options.

Whether your operation is in Water & Wastewater, Oil & Gas, Agriculture, Pharmaceutical, Food & Beverage, or elsewhere - FaraMag™ provides accurate, reliable flow monitoring of liquids $\geq 10\mu\text{s}/\text{cm}$ at a fraction of the cost of many competing technologies.

With FaraMag™ you'll have an industry-specific flow meter for:



Water & Wastewater



Irrigation & Agriculture



Chemical & Petrochemical



Oil & Gas



Process Manufacturing



Pharmaceutical



Food & Beverage



Mining & Aggregate



RO & Ultra Pure Water

INSTALLATION CONSIDERATIONS

PUMPS



If the system includes pumps, never place the sensor in the pump suction area.

SENSOR



Place the sensor at the bottom of the horizontal pipe or the rising pipe; never place the sensor in a downward section.

LOCATION



Make sure that the straight section of the pipe is at least x5 inches upstream and x3 inches downstream from the sensor.

PIPE SIZE



Reductions in pipes up to 8° of slope are considered to be straight.

EXPOSURE



Avoid exposing the equipment to direct sunlight and vibrations.

TECHNICAL SPECIFICATIONS

Diameter Range

0.5-inch to 40-inch (contact factory regarding larger diameters)

Pressure Rating

145 psi (PN10) and 232 psi (PN16)
363 psi (PN25) and 580 psi (PN40) on request

Piping Connection

ANSI flanges (DIN 2633 optional)

Body Material

Carbon Steel

Inner Liner

Hard Rubber (PTFE optional)

Measuring Electrodes

4 electrodes:
x2 main / x1 empty pipe detection / x1 ground material: AISI 316L Stainless Steel (Hastelloy optional)

Flow Range

0.29 - 31,700 GPM

Accuracy

±0.25% of the measured value from 1.64 - 32.8 ft/s
±1.0% of the measured value from 0.33 - 1.64 ft/s

Storage Temperature

32 - 113°F (0 - 45°C)

Working Temperature

14 - 194°F (-10 - 90°C) for Hard Rubber lining
-22 - 302°F (-30 - 150°C) for PTFE lining

Class of Protection

IP67: sensor (IP68 optional)
IP65: convertor (IP67 optional)

Standards



EN ISO 6817:1997 (BS5792)

Communication Options



Modbus RS232 protocol (standard);
Remote data via SMS text messaging (standard);
Modbus RS485 protocol (optional; available 2020);
HART communication protocol (optional; available 2020);
M-BUS protocol (optional; available 2020)

EVERYTHING YOU NEED

By working with H2flow Controls, you're partnering with a complete solutions provider that is committed to serving the fluid-handling markets.

Our solutions are developed with a focus on controlling, protecting and measuring the flow of machines and processes that are typically used in these markets.



Fluid-handling solutions from H2flow Controls offer industry leading quality, reliability and features. Learn more about our solutions by visiting our website and following us on social media.

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