

Benefits

The McMag²⁰⁰⁰ provides farmers and irrigators an affordable and easy-to-read mag with minimal maintenance and little to no downtime. As the only mag meter on the market with a price tag comparable to a propeller meter, the McMag²⁰⁰⁰ has a low cost of ownership without compromising durability and accuracy. The McMag²⁰⁰⁰ is portable, making it an efficient purchase for users with multiple irrigation lines. This mag's familiar saddle-style form and streamlined functionality allows for in-field programmability and serviceability, guaranteeing minimal downtime and maximum control. It's the hassle-free, wallet-friendly, works-when-you-need-it-to, simple to use, mag meter, only from McCrometer.

Designed for Accuracy, Built to Last

- Durable, built with a time-tested rugged design
- Consistent and repeatable measurements
- Versatile, with a wide range of applications

Installation

The McMag²⁰⁰⁰ offers hassle-free installation, even in tight spaces. No flanges or costly welding is involved. Users simply cut a 3" diameter hole in the top of their pipe and slide the sensor into the hole, and then cinch the meter onto the pipe using the Factory provided U-straps.

The meter can be mounted in a horizontal or vertical position with a full pipe of water. A minimum of five pipe diameters upstream of a flow disturber and two pipe diameters downstream from the meter are required to ensure optimal accuracy of $\pm 2\%$.



KEY FEATURES

- +/- 2% accuracy
- Easy in-field installation
- Low maintenance
- 5-year full warranty
- Low cost of ownership
- "Do-it-yourself" programmability
- Minimal pipeline intrusion

APPLICATIONS

- Center Pivot Systems
- Well Monitoring
- Water Distribution
- Chemigation
- Livestock Waste Lagoons
- Surface Water
- Golf Courses and Park Management



Description

The McMag²⁰⁰⁰™ provides growers and irrigators with a new alternative for flow measurement. With a 5-year meter warranty, a 5-year battery life, and saddle mount design, the McMag²⁰⁰⁰ delivers the dependability and ease-of-installation McCrometer has provided to the agricultural market for over 65 years. The electromagnetic sensor offers accuracy as good as ±2%.

The meter is available to fit a common range of agricultural line sizes, from 4" to 12" diameter pipe or tube.

The innovative design of the McMag²⁰⁰⁰ saddle mount meter offers modular design to ensure McMag²⁰⁰⁰ continues to have low cost of ownership, the main components can be easily and affordably updated in field without downtime.

The meter combines a saddle, precision sensor, and a battery powered integrated electronic converter package to provide accurate flow measurement for full-pipe flow monitoring applications.

The integrated electronic converter is secured with tamper resistant screws to protect against unauthorized access. The meter offers flow rate and total water used and a 5-year warranty. The McMag²⁰⁰⁰ features two 3.6V lithium-thionyl chloride (Li-SOCl₂) D size batteries, and a back-up battery pack. The main power batteries are easily replaced in the field. Pulse output is available for remote meter reading or SCADA.

Part Number Structure

G20	-	-	-	-	-
METER SIZE					
4" Saddle Meter	04				
6" Saddle Meter	06				
8" Saddle Meter	08				
10" Saddle Meter	10				
12" Saddle Meter	12				
Electronics and Sensor Kit (No Saddle)	MC				
MATING PIPE OR TUBE OPTIONS					
Tube Style Saddle (Nominal Inch OD)	T				
Pipe Style Saddle (Nominal Pipe OD)	P				
No Saddle (Electronics and Sensor Kit, MC Only)	K				
POWER & OUTPUT OPTIONS					
Battery Power / No Outputs (Default)	-				
Battery Power / Pulse Output	1				
DC Power (10-32v) Battery Backup / Pulse Output	2				
CABLE LENGTH OPTIONS					
6 feet (Standard)	1				
25 feet (Optional)	2				
50 feet (Optional)	3				
SADDLE OPTIONS					
F Style Saddles for FS Flow Straightener	F				

Flow Meter Specifications

Description and Operating Specifications

	Volumetric flow in filled flow conduits 4" to 12" utilizing saddle installed sensor. Flow indication in English Standard or Metric units.		
Method	Electromagnetic		
Pipe Sizes and Flow Rates	4"	40 - 600 gpm	
	6"	90 - 1350 gpm	
	8"	150 - 2350 gpm	
	10"	240 - 3700 gpm	
	12"	350 - 5300 gpm	
Body Style	Saddle mount		
Pressure	150 psi (10.3 bar) working pressure		
Accuracy	±2% accuracy, or ±0.25% of standard full scale flow		
Empty Pipe Detection	Hardware/Software, conductivity-based		
Electrical connections	Optional shielded cable for 10-35VDC		
	Optional shielded cable for pulse out		
Pipe Run Requirements	5D Upstream / 2D Downstream		
Retrofit	Available using Mc® Propeller saddle		

Display and Measurement

Display	<ul style="list-style-type: none"> • Large LCD display (no backlight) • Non-volatile memory • Anti-reverse totalizer (standard) • Total (to 9 digits of precision) • Flow Rate and Velocity (to 5 digits of precision) • Low battery and empty pipe indication • Opening lid activates display 			
	Digits	5 Rate, 9 Total		
	Units	Gallons per minute	Imperial gallons per minute	Cubic feet per minute
		Million gallons per day	Miner's inch (9G)	Barrels per minute (55G)
		Cubic feet per second	Miner's inch (11.22G)	Barrels per hour (55G)
		Megaliters per day	Acre-feet per day	Barrels per day (55G)
		Liters per second	Kiloliters per hour	Barrels per minute (42G)
Cubic meters per hour		Liters per hour	Barrels per hour (42G)	
Liters per minute		Cubic meters per minute	Barrels per day (42G)	
	Gallons per hour			

Power

Battery	Standard: two 3.6V lithium-thionyl chloride (Li-SOCl ₂) D size batteries. Batteries are field replaceable. Unit contains backup battery.
DC Power	Linear power supply 10-35VDC, 2W
Battery Life	Five-year expected battery life, five-year battery warranty. <i>Note: Battery expectancy is with standard configuration</i>

Flow Meter Specifications

Environmental

Operating Temperature	10° to 140°F (-12° to 60°C) sensor
Storage Temperature	-20° to 149°F (-29° to 65°C)
Operating Pressure	150 PSI
Water Impermeability	IP67

Outputs

Pulse Output	One digital pulse (open collector) output for volumetric
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Options and Accessories

<ul style="list-style-type: none"> • Epoxy coated carbon steel flanged spool piece • DC power w/battery backup • Annual verification / calibration • Stainless Steel ID tag • Boot cover

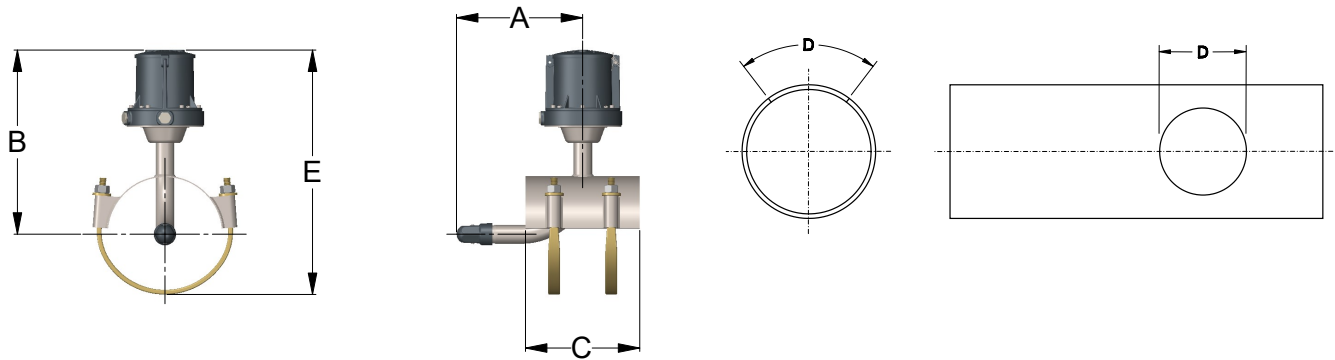
Materials

Sensor Body	HDPE plastic
Electrodes	Stainless steel (316)
Saddle Mount	Stainless steel (304)
Saddle Hardware	Stainless steel (304)
Electronic Housing	IP-67 Certified diecast aluminum, powder coated enclosure w/ tamper resistant seal, 6" x 6" x 5" tall
Saddle Gasket	Neoprene
Boot Cover	EPDM rubber optional

Warranty

Meter	5-year standard warranty
Battery	5-year warranty

Dimensions and Weights



DIMENSIONS					
Meter and Nominal Pipe Size	4	6	8	10	12
Minimum Flow U.S. GPM	40	90	150	240	350
Maximum Flow U.S. GPM	600	1350	2350	3700	5300
Approx. Shipping Weight-lbs.	13	15	18	20	24
A (inches)	5 1/2	9	9	9	9
B (inches)	10 3/4	13 1/4	13 1/4	13 1/4	14 1/4
C (inches)	7	8	8	9 1/2	9 1/2
D (inches)	3	3	3	3	3
E (inches)	13 1/4	16 1/2	17 1/2	19 1/2	21 1/2

REQUIRED ORDERING INFORMATION: Pipe O.D. and I.D. are required for all saddle meter orders.



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