

SIEMENS



PROCESS INSTRUMENTATION

World-class battery solutions for accurate water metering virtually anywhere

Manage water distribution and billing more cost-efficiently.

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Few resources are as vital to the human population, the environment and the global economy as water. To ensure the continuous preservation of this valuable commodity, the water industry has come to rely on the versatile SITRANS FM MAG 8000 series of battery-operated electromagnetic flowmeters from Siemens for water distribution and irrigation.

The MAG 8000 water meter offers you the flexibility for installation virtually anywhere – without sacrificing accuracy or performance. No mains power is required and the battery provides up to 10 years of maintenance-free operation. The MAG8000 is not affected by moderate amounts of debris in the water supply and has drinking water approvals FM and ANSI/NSF 61 to meet the highest health and safety standards.



The MAG 8000 is flexible enough for installation virtually anywhere, including district water lines.

Distribution

To provide customers with a continuous supply of drinkable water, it is vital to monitor network water flow from production plants to trunk lines to local delivery systems. Precise water metering is also very important for accurate billing and to reduce the need for verification. The MAG 8000 is an ideal solution for all of these tasks. Featuring a high turndown ratio and energy-saving low pressure drop, it is capable of bidirectional flow measurement as well as reliable monitoring of low flow for enhanced early leakage detection. In addition, the MAG 8000 operates with consistently high accuracy of 0.2-0.4% and has no moving parts to wear or foul, greatly minimizing the need for maintenance.

Irrigation

The irrigation industry faces the formidable challenge of managing water consumption while still remaining profitable. In agriculture production, the MAG 8000 reduces water wastage and ensures that farmers get a fair deal. The battery secures long-term performance in regions lacking reliable mains power, while the tamper-proof IP68 enclosure is durable enough to function in flood-prone areas or even entirely buried or submerged installations. The MAG8000 also demonstrates exceptional accuracy of 0.4%, far exceeding the industry standard of $\leq 2\%$.

Wireless communication

To enhance operational efficiency, improve billing accuracy and significantly reduce costs, the MAG 8000 includes a built-in wireless automated meter reading/advanced metering infrastructure (AMR/AMI) solution designed for use in Water Fixed Networks. Usage data from any site can be directly accessed via the Internet using a standard browser and secure password protection. The MAG 8000 also features a standard IrDA interface for configuration, data collection and documentation using SIMATIC PDM or Flow Tool software, and communication modules can be added if network capability is required.



An infrared IrDA interface offers the ability to upload or download data via laptop.

In addition, Siemens offers a compact mobile solution for the MAG 8000: the GSM/GPRS Wireless Communication Module (WCM). The WCM logs all flow data and transmits it via email or SMS at customizable intervals throughout the day, allowing for continual monitoring of water applications even when on-the-go.

Industry-leading excellence

The MAG 8000 offers a number of distinct advantages over other battery-powered water metering solutions on the market, including:

- FM approval for fire service use
- Suitable for a wide range of pipe sizes (up to 12" for FM version, up to 48" for standard version)
- AC and DC power supply in addition to 3-year battery backup



MAG8000	
Transmitter type	Basic water version for general purpose use Advanced water version for advanced information and functionality
Sensor size	1" – 48" with EPDM liner 2" – 12" with EPDM liner FM approved
Enclosure	IP68 / NEMA 6P, compact and remote with connectors and factory-mounted cable
Display	Display with touch keypad
Output	2 individual pulse outputs (incl. net flow volume)
Communication	Integrated standard IrDA interface Add-on communication modules, RS 232 / RS 485 with MODBUS RTU protocol Encoder interface module for AMR/AMI GSM/GPRS (wireless)
Power supply	Internal or external battery pack 12 – 24 V AC/DC or 115 – 230 V AC with battery backup
Accuracy	Standard: 0.4% \pm 0.01 ft/s (2" – 48") FM: 0.2% \pm 0.01 ft/s (2" – 12")

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