

# District metering of potable water and custody transfer measurement

## Battery-powered electromagnetic flowmeter – 6500W/IMT65W



Flexible battery-powered water meter provides increased performance and reduces expenses with an IIoT solution to district metering and custody transfer applications.

### Features

- Multi-power concept for virtually any water application
- Measurement of clean (potable) water
- Monitoring of distribution networks
- Maintaining water balance
- District Metering Areas (DMA) for leak detection
- Pressure and pumping stations
- Pressure monitoring and water quality control
- With integrated pressure and temperature sensor
- Water consumption and billing
- Checking of water wells or billing of ground water

### Benefits

- EcoStruxure™ Process Instrumentation's electromagnetic flowmeters offer simplified installation, integrated diagnostics, long battery lifetime, remote communication options, and low overall maintenance for remote location installations.
- Schneider Electric's electromagnetic flowmeters offer increased performance with the highest operational efficiency and reliability. They deliver data about the process conditions and monitor and protect the operation of high value assets.

## Increased performance and reduced expenses

- The instrument design has no need for straight runs and allows for a very compact installation
- Due to large turndown ratio, the instrument provides accurate measurement during peak and downtime
- Leak detection with integrated pressure and temperature measurement
- Built-in reference electrode makes grounding rings obsolete
- Integrated diagnostics
- Plug-and-play military grade connectors for simplified installation
- Datalogger available for cyber-secure, plug-and-play, remote data acquisition

The meters offer an external power option with battery backup and a Modbus RTU/Pulse (with data logger) communication option for transmission of readings, meter status, and alarms. The polycarbonate transmitter housing with protection class IP68 rating is standard for both compact and remote versions. The meter features IP68 waterproof plug-and-play connectors that do not require wiring on site, and a small installation footprint to fit into electrical cabinets.

For locations where external power is available, the 6500W/IMT65W is available with an external multi-power unit to connect the meter to a 110 to 230 VAC or 10 to 30 VDC power source. The multi-power module also has an internal battery that serves as a battery backup in case the external power source is lost.

## Built-in leak detection

The integrated pressure and temperature sensor option allows the 6500W/IMT65W to be used for a wide variety of drinking water network tasks, including pressure monitoring, maintaining the water balance, and district zoning (DMA). It can also be used for leak detection in drinking water networks when comparison of pressure and flow values is used as the leak detection method.

Alarms can be generated by the status output or by Modbus when critical limits for pressure and/or temperature are exceeded.

## EcoStruxure IIoT

To transfer all output data, the water meter can be connected to a Schneider Electric data logger\* for a complete remote solution. The Schneider Electric data logger is an IIoT solution for creating cyber-secure, plug-and-play, affordable smart infrastructure networks.

\*Refer to the 4G LTE Data Logger data sheet for more details.

## Industries

- Water abstraction
- Water production
- Water distribution
- Revenue metering
- Irrigation

## Increased battery performance

The 6500W/IMT65W is a battery powered water meter designed especially for the potable water industry and is capable of measuring flow (totalizer), pressure, and temperature with one sensor.

- Battery powered with up to 10 years battery life
- Multi-power unit with AC external power supply and DC power both with battery backup, ideal for solar and wind power

## Approvals and ratings

- OIML R49 and MID Annex III (MI-001) up to 24"/DN600
- Drinking water approvals including NSF-61 and ACS
- Sensor and signal converter are IP68 rated according IEC/EN 60529



Data logger



Multi-power



## 6500W/IMT65W product specifications

Specifications	
Features	<ul style="list-style-type: none"> <li>• Unique rectangular flow tube design providing improved flow profile and signal to noise ratio resulting in highest accuracy, low energy consumption, and large turn down ratio</li> <li>• Polymer coated flow tube approved for potable water</li> <li>• No internal moving parts</li> <li>• Built-in reference electrode</li> <li>• Optional built-in pressure &amp; temperature sensor (for 2"/DN50 to 8"/DN200)</li> <li>• Battery powered</li> </ul>
Modular construction	The flow meter consists of a flow sensor and a transmitter, available as a compact and as a remote version
Remote version	Cable length up to 25m/70ft; other lengths on request
Nominal diameter	1"/DN25 to 24"/DN600 with rectangular bore
Display	8-digit LCD display
Operation	2 optical keys for transmitter menu navigation without opening the housing
Display information/std.	<ul style="list-style-type: none"> <li>• Sum counter (default), forward counter, reverse counter, or flow rate</li> <li>• Flow direction (forward or reverse), counter settings</li> <li>• Measured value and measuring unit</li> <li>• Battery lifetime indicator</li> </ul>
Display information/opt.	Operating pressure, operating temperature, empty pipe, self-test, display test, test mode, diameter, meter constant, software version, AMR mode, device status, multiplier
Remote reading	Optional 4G LTE Data Logger for pulse or Modbus, contact your local Schneider Electric representative
Accuracy	1"/DN25 to 12"/DN300: down to 0.2% of the measured value + 1mm/s 14"/DN350 to 24"/DN600: down to 0.4% of the measured value + 1mm/s

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

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