AQUAMETER

Accessible, cost-effective, deeptech water telemetry solution

Discover…

- **The environmental** & **societal** challenges associated with water management
- **An innovative solution based** on AI & IoT technologies
- **A disruptive approach designed** to be accessible, evolutive & economically viable

DUETWARE

960 chemin de la Croix Verte
38330 Montbonnot, France

+33 (0)4 76 41 87 99
contact@duetware.com

duetware

Water Management – A Crucial Environmental and Economic Challenge

Managing our water resources is now more than ever a critical challenge for municipalities and utilities. Today, the majority of communities still rely on manual or semi-automated approaches to meter reading, such as walk-by or drive-by reading using wireless technologies. These methods allow only a few readings per year, which means leaks can go undetected for months—leading to significant water loss and substantial costs for both consumers and utilities.

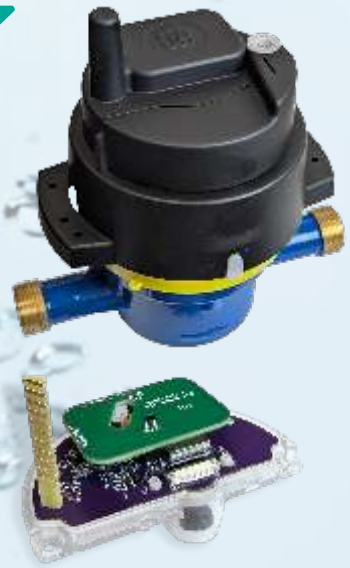
MODERNIZE WITHOUT REPLACING EVERYTHING

Given this situation, the transition to wireless Advance Metering Infrasture (AMI) is inevitable. However, this shift raises several challenges to include:

- **The high cost of completely replacing installed meters**
- **Complex installation procedures that often require service interruptions**
- **The integration of meter reading data into billing platforms**

Aquameter responds to all of these challenges.

AQUAMETER ADVANTAGES



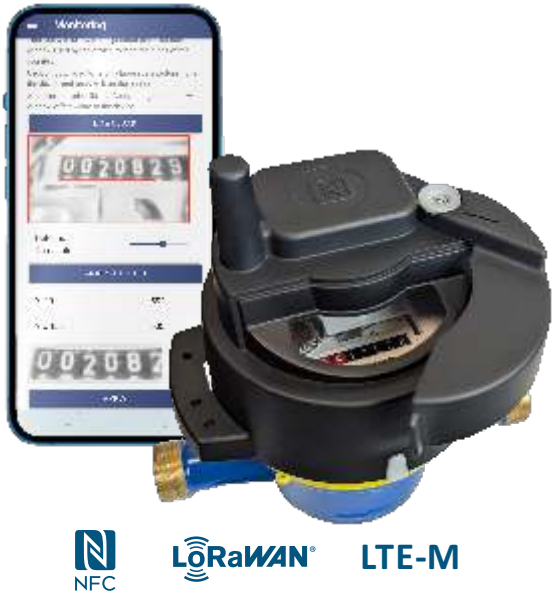
- **Eco-friendly** – Upgrades existing meters, replaceable battery, recyclable
- **Detects leaks** – Daily readings analyzed by artificial intelligence
- **Cost-effective** – Mounts on existing meters, a telemetry solution at the right price
- **Universal** – Compatible with all models of meters
- **Installs easily** – No interruption of water supply
- **Autonomous** – 7,000 cycles or up to 20 years at one reading per day
- **Connected** – Telemetry by LoRaWAN or LTE-M, configuration by NFC
- **Upgradable** – Remote firmware updates
- **Guaranteed confidentiality** – Secure data management and transmission

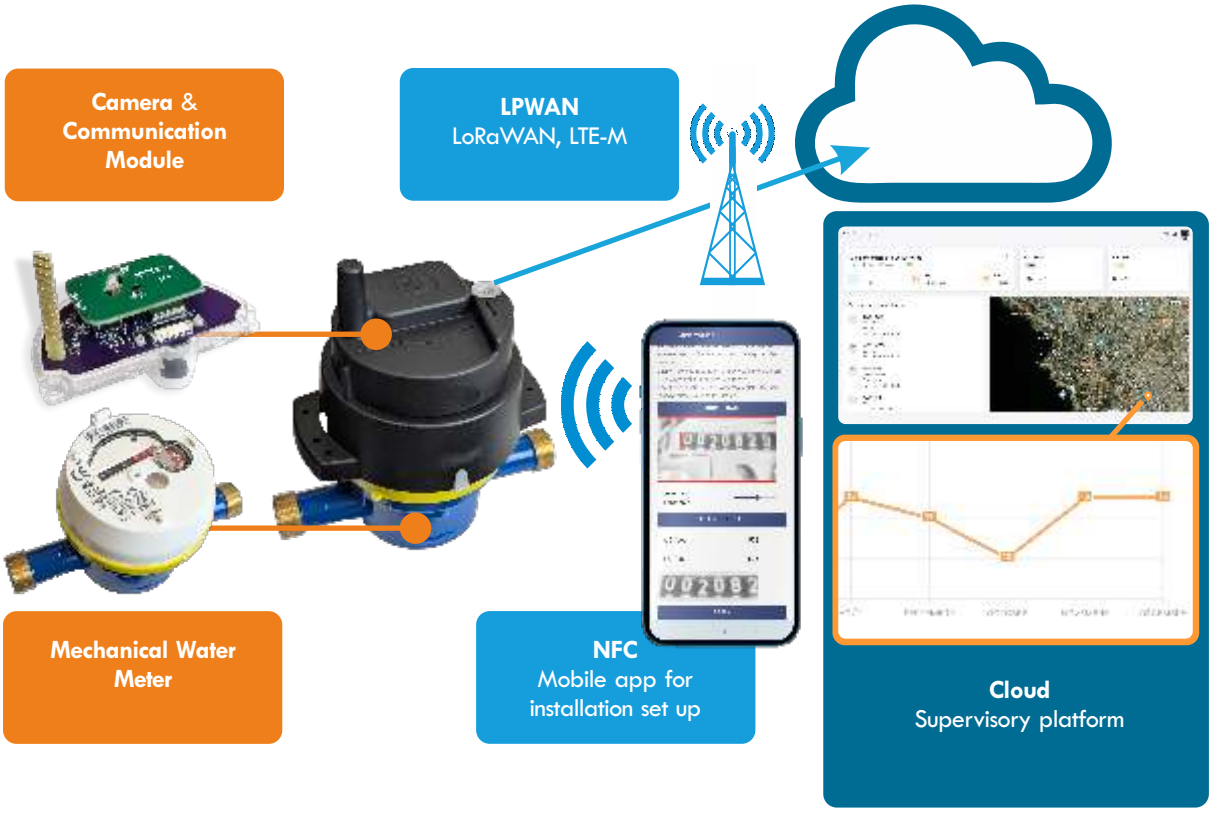
An Innovative & Universal Solution

Aquameter is a housing that mounts on mechanical water meters. It contains electronics that, at a configurable frequency, capture a photo of the meter's display, recognize the digits in the image, and transmit the data via a low-power long-range wireless network (LPWAN).

The electronics also include an NFC interface, allowing a nearby mobile phone to configure the device, read the meter status, and take manual readings — all without consuming any energy. A lithium battery ensures a service life of up to 20 years (7,000 cycles).

Mechanically, the housing is designed to be watertight. Modification of its adapter ring makes it compatible with all brands and models of meters. It is fixed in place with an anti-tamper seal.



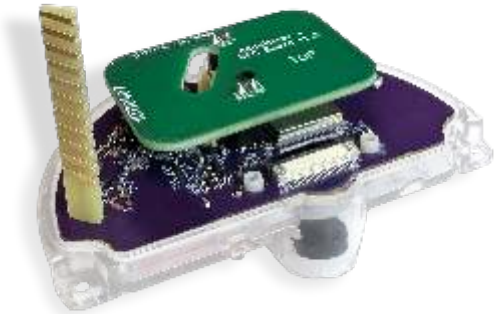


Applications

Aquameter is designed for the remote reading of mechanical water or gas meters. It can also be applied to other types of mechanical meters or machinery — particularly in cases where the equipment is isolated and an electrical power supply is not readily available.

Technologies

Aquameter's electronics implement the following components and technologies:



- **A camera** that photographs the meter's dial. Two LEDs provide appropriate lighting to take a photo of the left digits and another of the right digits. These two photos are combined to form a single image for analysis and data extraction.
- **A processor running an Optical Character Recognition** (OCR) **algorithm** to read the meter's index. This algorithm is optimized for very low power consumption, and a decoding reliability of 100%.
- **An LPWAN communication interface** that can be configured for open protocols such as LoRa, LTE-M, SigFox, and Wireless M-Bus.
- **An NFC interface** for interacting with mobile phones during installation set up and configuration. It can also be used to manually retrieve the meter's data or the image that was taken of the meter's index.
- **An optimized management of the cycle of tasks** that minimizes the consumption of energy, ensuring optimal life span of the device's battery.

Deployments & Outlook

Currently in the pre-production phase, Aquameter is attracting strong interest from actors in both the public and private sectors, particularly in Africa and Latin America. Several hundred units are being tested by water utilities in four countries, which together represent a potential market of 10 million devices. Aquameter's simplicity, reliability, and cost effectiveness make it an ideal solution for kickstarting the digital transformation of water networks.

For more information...

We offer utilities and local authorities a complete package for conducting field trials with Aquameter. To learn more or request a price quotation, contact us today at:

contact@duetware.com

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