L'AISON

Global Measurement
Innovation Partner

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AquaLink for Domestic Mechanical Meter Retrofit

LAISON AquaLink is designed for Water Authorities to upgrade existing domestic mechanical water meters with pulse output into smart meters. This non-magnetic, direct-reading smart module adopts LoRaWAN communication protocol, utilizing LoRa wireless technology to achieve long communication distance and convenient networking.
The automatic meter data collection & remote control functions drastically reduces the labor cost on door-to-door meter reading and improve efficiency.

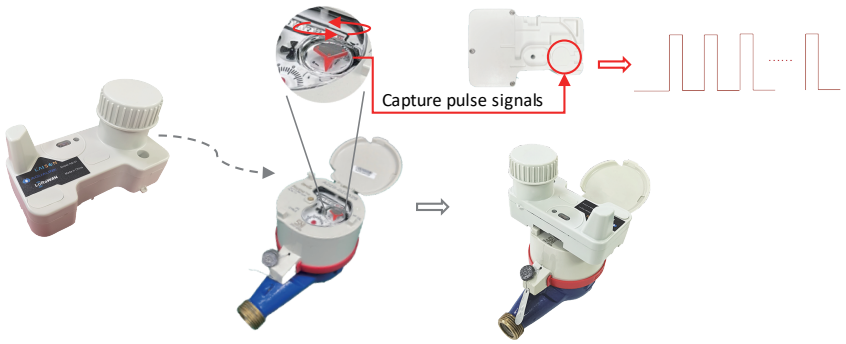
By adopting a separation structure design, the AquaLink module can be fully detachable from the mechanical meter, which simplify both during installation and maintenance process. Moreover, the AquaLink module is impervious to magnetic interference, ensuring precise and reliable measurements.



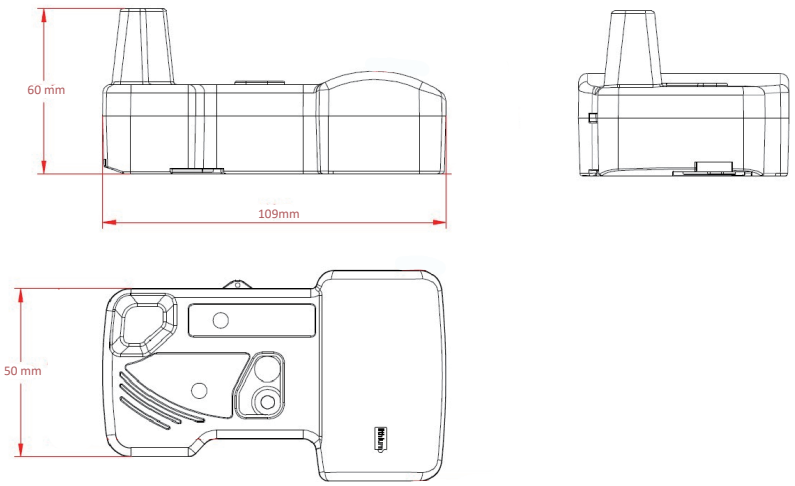
Features

- Low power consumption and large battery capacity to ensure 6+ years battery lifespan, replaceable
- Reverse flow detection & measurement via non-magnetic sensor sampling technology
- Anti-dismantle detection of AquaLink module, audible alarm triggered
- Standard LoRaWAN communication protocol comply, compatible to 3rd party IoT applications
- Reserved NFC Comm. for easy operation and configuration
- Reserved Firmware Upgrade or NFC, ensuring system flexibility and future-proofing
- IP68-rated waterproof to ensure good performance in harsh environments

Work Process



Shape and Installation Dimension



Technical Data

Power Supply & Consumption	
Operating Voltage	3～ 3.7V
Average Power Consumption	≤65 μA
Sleep Mode Power Consumption	22 μA
LoRa Operating Power Consumption	120mA, during continuous data transmission
Wireless Comm. Parameters	
Communication Mode	LoRaWAN
Power Supply	3.6V/8500mAH
Standby Current	≤80 μA
Operating Current	4mA
TX Current	126mA@22dBm
ISM Band	AS923, AU915, EU868
TX Power	Up to 22dBm*
RX Sensitivities	Down to -134dBm
Communication Distance	3km to 10km (Line of View）
Data Transmission Speed	980～ 12500bps
Transmission Method	LoRaWAN network and Point-to-Point network (in space or time)
Spreading Factor	SF7～ SF12 (adaptive)
LBT (Listen Before Talk)	Yes
LoRaWAN Class	Class A
Non-Magnetic Sampling Module	
Sensing Distance	7mm Diameter of steel plate 14mm, 3.6V working voltage
Supports Maximum	2.2 turns/second