



Smart Water Metering Solution

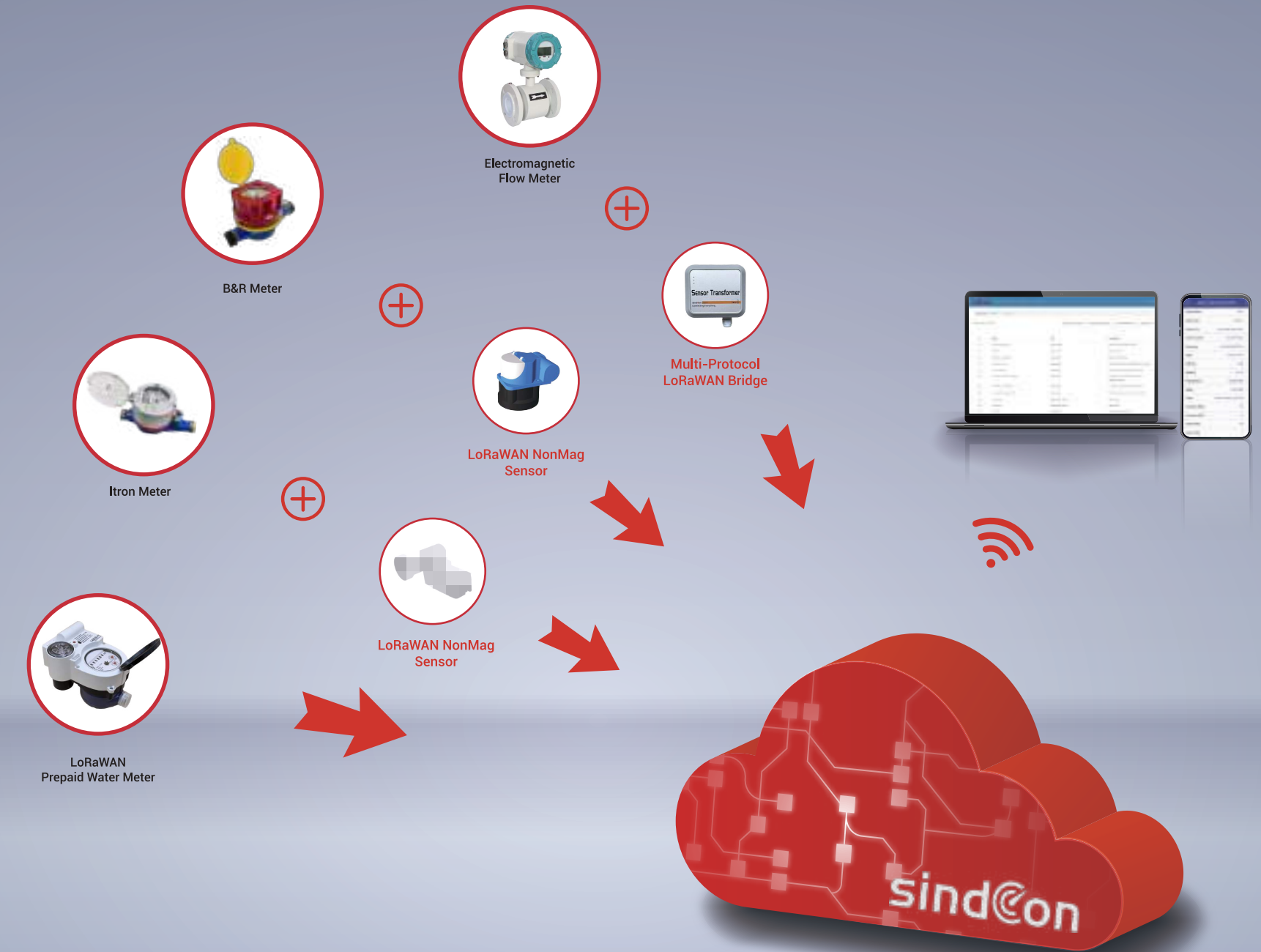
Sindcon's smart water metering solutions enable advanced monitoring, control, and efficient water resource management for cost reduction and sustainability.

- 01 LoRaWAN Prepaid Water Meter**

Sindcon offers smart water meters with integrated LoRaWAN connectivity and remote valve control. It is a compelling solution for modernizing water management systems. Features include real time water consumption monitoring, leak detection, remote valve control, and tamper detection.
- 02 Retrofit Smart Sensor for Existing Water Meter**

Sindcon offers a range of retrofit smart sensors with built-in LoRa communication capabilities for various types of existing water meters. This is a valuable offering as it allows utilities and property owners to upgrade their water meter infrastructure with IoT (Internet of Things) technology to enable remote monitoring, data collection, and other smart features.
- 03 LoRa Flow Meter for Industrial Applications**

Sindcon offers a wide range of flow meters with LoRa communication. Sindcon's range of flow meters include different types and models to suit the specific needs of different applications, such as Ultrasonic Flow Meter, Magnetic Flow Meter and Vortex Flow Meters.





LoRaWAN

Prepaid Water Meter

DESCRIPTION

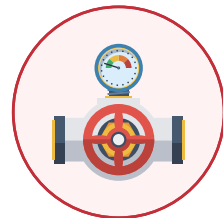
The Mercury LoRa series LXSGF model is an impeller (Turbine) water meter with a built-in valve and dry type register. It is designed for residential applications with sizes ranging from Dn15 to Dn25, and is intended for metering cold drinking water. The LXSGF model consists of a mechanical water meter, an electric ball valve, and an intelligent unit (IU) Powered by ARM Cortex-M4 Core integrated in LoRa SoC (System on Chip) and a built-in lithium battery. With the pre-equipped LoRa SoC, the analog reading of the water meter can be digitalized and wirelessly transmitted to the meter data collection system. Taking advantage of the LoRaWAN technology, it significantly accelerates the meter reading speed and avoids the risk of visual reading mistakes. It also greatly improves meter readers' safety and customer satisfaction by avoiding intrusion into private facilities.

FEATURES AND BENEFITS

- LoRa SoC (STM32WLE5XX) integrating ARM Cortex-M4 Core as processor
- 3.6V Built-in Li-SOCl2 Battery
- Battery life: up to 10 years
- Battery is independently packaged and is convenient to replace
- Dual sensors and special algorithm to ensure accuracy
- Transmission Position: 10L/100L
- Water Proof level: IP68
- Sindcon's unique primary (Li-SOCl2) battery management technology not provides precision usage calculation and loading leakage detection but also keep the battery in health condition across the battery life



SoC Based LoRa Technology



Valve Control



IP68, suitable for outdoor installation

LORA RADIO PARAMETERS

Communication Protocol	LoRaWAN
LoRa MAC Version	1.0.3
Device Type	Class A
Network Registration Way	OTAA, ABP
LoRaWAN Uplink Confirmation	Confirm or Partially Confirm
LoRa Chip	STM32WLE5CCU6
MCU	Arm® 32-bit Cortex®-M4
Memory	256KB Flash; 64KB RAM
ISM Bands	AS923, AU915, EU868
TX Power	Up to 22dBm
Uplink Channels	8 settable channels with bandwidth of 125kHz
RX Sensitivity	Down to -125dBm@BW = 125 kHz, SF = 7
Spreading Factor	SF7 ~ SF10 (Adaptive)
LBT(Listen Before Talk)	Yes
Report Interval	Configurable via Downlink Commands
Data Cach when LoRa Network Interrupt	Yes
Data Logger in local device	Optional
Communication Distance	3km to 10km (Eyesight distance in open space)
Near Field Communication Way	Infrared Tools (with Sindcon Mobile APP)
Built-in Valve/Relay	Valve

ELECTRICAL PARAMETERS

Power Supply	3.6V (ER26500 8500mAh)
Standby Current	≤40uA
Active Current	≤5mA
TX Current	≤126mA@22dBm
Battery Life	Up to 10 years
Battery Usage Monitoring	Accurate Coulomb Measurement
Battery Undervoltage Warning	Yes
MCU Temperature Monitoring	Yes
CPU Working Temperature	-20°C ~ +85°C
Storage Temperature	-10°C ~ +60°C