

### $Konarak\ LoRaWAN^{\scriptscriptstyle ext{TM}}\ WATER\ METER$



Konarak LoRaWAN™ water meter for measuring the flow of water, with accumulation and transmission of readings using the LoRaWAN™ network.



### **FEATURES**

- •Long range wireless data transmission
- Optical detection of the water meter rotating gear movement
- •Magnetic detection of the water meter magnetic dial movement
- Pre-installed long-life battery
- Water metering
- · Avoiding Backflow using Built in NRV

- Removal detection
- Tamper alert
- Leakage/usage detection
- · Configurable reporting interval
- Maintenance-free install & forget
- Easy installation
- Average life 7 years\*
- Secure communication

<sup>\*</sup> Lifetime depends on the reading method (optical or magnetic), device location and reporting interval. With optical reading and hourly reporting the minimal expected lifetime is 2 years.



### **OVERVIEW**

#### Efficient

Konarak LoRaWAN™ Water Meter Sensor has battery-powered, long-range transceiver with low power consumption.

#### Intelligent

Real-time usage data is gathered wirelessly and processed automatically. Data is accessible from your Mobile API.

Decoder will be provided for different servers to get end decrypted data.

### **APPLICATIONS**

#### Water metering

Frequent reporting provides a detailed usage overview.

#### Leakage and usage detection

LoRaWAN™ Water Meter Sensor can be configured to send alerts when leakage/usage is detected.

#### Tampering detection

The sensor sends an alert when magnetic tampering is detected

### **SPECIFICATIONS**

Diameter:	15mm onwards
Activationt:	OTAA/ABP
Coverage:	Upto 15 kms in Rural area and 2 kms in highly urbanized environment
Lora class:	А
Operating temperature:	-20°C +65°C
Communication range:	up to 1 km*
Tx power:	up to +20dBm
Rx Sensitivity:	-140dBm
MAC Layer:	LoRaWAN™
Frequency:	IN865-867 ( Customizable based on country)
Power:	Built-in battery 2600 mAh. Up to 7 years.(Depends on time interval)
IP Rating:	IP68
Communication:	LoRaWAN™

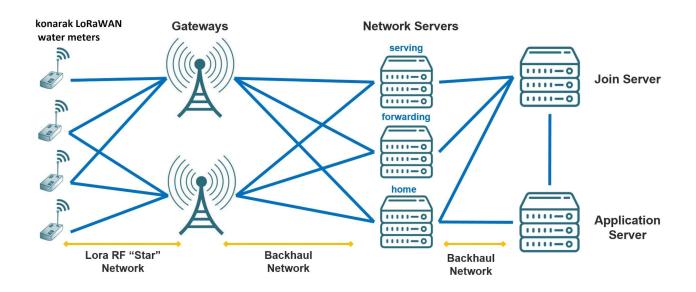
<sup>\*</sup> Communication range is dependent on the location of the sensor and nearest base station.

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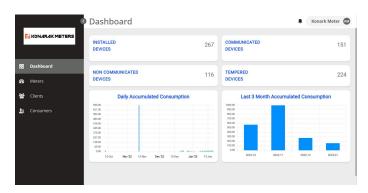
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## SYSTEM ARCHITECTURE

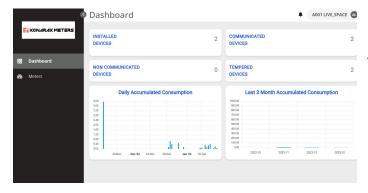


### ADVANCED SOFTWARE SOLUTION



### **Distribution Admin Side**

- Customer Management
- Section Management
- Billing and Payments management
- Usage Reports
- Well built Analytics Report system



#### **Customer Side**

- Billing and Payments
- Usage Reports
- Notifications
- Analytical chart views

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# About Konarak $LoRaWAN^{\scriptscriptstyle ext{TM}}$ water meter

Konarak Industria Pvt. Ltd, belonging to Klas Group of Companies from Bangalore, was started in the year 1980 as a Precision Manufacturing Company. With a history of more than 40-years, Konarak has acquired the reputation as reliable suppliers of precision Engineering components and Assemblies to many OEM applications in the Indian market.

Konarak has been working continuously to explore upcoming market opportunities. Backed up by a well-equipped R & D facility and Manufacturing expertise, Konarak has successfully grown into a Multi-Technology, Multi-Product company.

Konarak Developed a device which is used to monitor the amount of water being used. In India, mostly conventional mechanical reading meters are being used. A person needs to go to every meter to note down the reading and then he prepares the bill. This smart device automatically monitors the readings and sends them to the server. This data sending can be on a daily basis or as per the requirements.

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