

# iPERL



**Imagine a high-performance endpoint, enabling you to manage your distribution networks more efficiently, providing accurate billing and helping you build a smart city for a greener future.**

**Introducing iPERL.  
Think Sensus, think smarter.**

For more information call +852 3746 9033  
or visit [www.alliedpower.com.hk](http://www.alliedpower.com.hk)



# Say hello to your next-generation solid-state meter



Sensus has been working with water utilities around the world for over 150 years so we understand the industry.

Our global customers trust the reliable, effective and innovative solutions we deliver for the intelligent use and conservation of energy and water.

We work hard to understand your issues and our proven technology helps companies like yours drive operational efficiencies and customer satisfaction.

## What is iPERL?

iPERL™ water meters are cutting edge, high-performance, solid-state smart water meters with integrated bidirectional communications capability. They use a unique technology that provides unrivalled, sustained accuracy over their expected 15-year service life.

## Benefits to your customer

- Accurate billing giving your customers confidence
- Customers can be alerted of potential leaks, saving them money and enhancing your reputation as a supplier
- A customer's meter can be read on demand remotely, for example when there is a change of tenant
- Customers will not have to supply meter readings manually
- Customers have more information on the efficiency of their household and can make informed decisions on how to save water

## 5 top key features

- **Low-Flow Measurement:** With a flow measurement down to 1 litre per hour, iPERL helps utilities to reduce undetected leakages due to next-generation sensors embedded in the endpoint
- **Remnant magnetic field technology:** Unlike other solid state meters, the technology iPERL uses provides a constant linear working flow range
- **Data at 15 second intervals:** The endpoints can be programmed to provide highly granular data at 15-second intervals, which improves accuracy in identifying customer-side leaks
- **Solid-state meter with no moving parts:** Unaffected by trapped air, sand or particles within the water, which ensures accurate readings from the beginning until the end of its service life, and subsequently preventing unplanned maintenance costs
- **A wealth of data:** The data collected helps water utilities to manage distribution networks more efficiently, to conserve water, to provide accurate billing to customers and to inform them about leaks, fraud or unusual usage patterns

## Benefits to you

- Tamper proof and fraud resistant: Alarms indicating manipulation can be forwarded with meter reads.
- Increase customer service and satisfaction: Trials in the industry have shown that consumers receiving regular, accurate billing do not call their suppliers as often to question or dispute bills. This has a direct cost saving and improves customer satisfaction.
- Reduce non-revenue water: The high accuracy of the iPERL improves the accountability of non-revenue water due to pipe rupture or undetected leakages.
- Reduce maintenance: 15 year service life\*: There's no need for meter recalibration or replacement during iPERL's expected 15 year operational service period as the measurement accuracy of the meter is certified for life. iPERL provides significant long-term cost savings and reduces operational costs due to a longer meter replacement cycle. (Note: Actual battery life is dependent on operating and installation conditions. Please see the user manual for more information). \* Depending on local country law
- Improve operational efficiency and customer service: The unique utilisation of both one-way and two-way radio communications reduce time, cost and difficulty reading meters installed in hard to access locations
- Performance uninterrupted by installation: Since iPERL has no moving parts, it can be installed in any orientation. No upstream or downstream straight pipe lengths are required, providing full flexibility and simplicity in meter installation processes. It is the only endpoint on the market with automatic flow detection.
- Flexible communications solutions: iPERL's radio capability offers the choice of walk-by, drive-by or fixed radio network communications. It has been designed to provide a seamless migration path from AMR to AMI.
- Flexible meter reading solutions: Sensus can supply handheld or vehicle devices (walk-by/drive-by), or fixed network solutions using either Sensus Radio Frequency (RF), a mesh network on public spectrum, or Sensus FlexNet™, a fixed AMI communications network used to transfer data over a dedicated, reliable and secure network.
- Future proof: iPERL supports both SensusRF and open standards based communications. The integration and migration capability of iPERL supports a future proofed AMI strategy and your roadmap towards a smart water network.
- Increases your returns whilst maximising operational efficiency: Lowering cost of non-revenue water, combined with the increase in data, allows you to better understand your customer's usage patterns.



## Top 10 facts about iPERL

1. Widest working-flow range on the market: iPERL offers an unrivalled flow range for domestic and small commercial metering applications.
2. Sustained accuracy: The smart meter's working-flow range and accuracy are unaffected by the installation orientation.
3. Withstands temperatures as low as -20°C: iPERL has been tested at very low temperatures and found to operate just as effectively, with no damages incurred.
4. Sustainable endpoint material: In order for the components of the endpoints to be recycled at the end of the 15 year service-life, the potting material used to encapsulate everything within the meter must remain crystal clear and malleable.
5. Valuable data always available: The iPERL is equipped with SensusRF and the OMS standard to ensure that valuable data is always accessible.
6. Active data-logger: The smart meter contains an active data-logger which can be configured according to the customer's business requirements.
7. Performance Under Pressure: iPERL is certified to an internal operational pressure of 16 Bar and in tests often exceeds 80 Bar without damage.
8. Unique power supply design: The power supply within the iPERL ensures that when the integrated radio transmitter is operational, the additional battery current drawn does not affect the accuracy of the meter at any stage of its service-life.
9. Only the water in the supply is measured: This ensures that air in the water-flow does not add to the volume recorded.
10. Continuously measures: The iPERL records data at all times, ensuring that all consumption is monitored.

## If you can't measure, you can't manage

The data captured by a Sensus iPERL smart water meter provides your business with the accurate information to identify and help manage network issues proactively and efficiently. It also helps you address regulatory and environmental challenges whilst improving customer service, security of supply and operational efficiencies.



FlexNet Long Range Radio (LRR) is a Radio Frequency (RF) technology specifically designed for utility grade applications. The Sensus FlexNet™ communication network delivers high speed, scalable and reliable two-way communications via long-range radio.

The FlexNet system works with smart meters and sensors to securely transmit and receive customer usage data. You can use that data to proactively manage your electric, water, gas, lighting and smart grid systems.

**Sensus currently has:** A presence in 42 countries worldwide

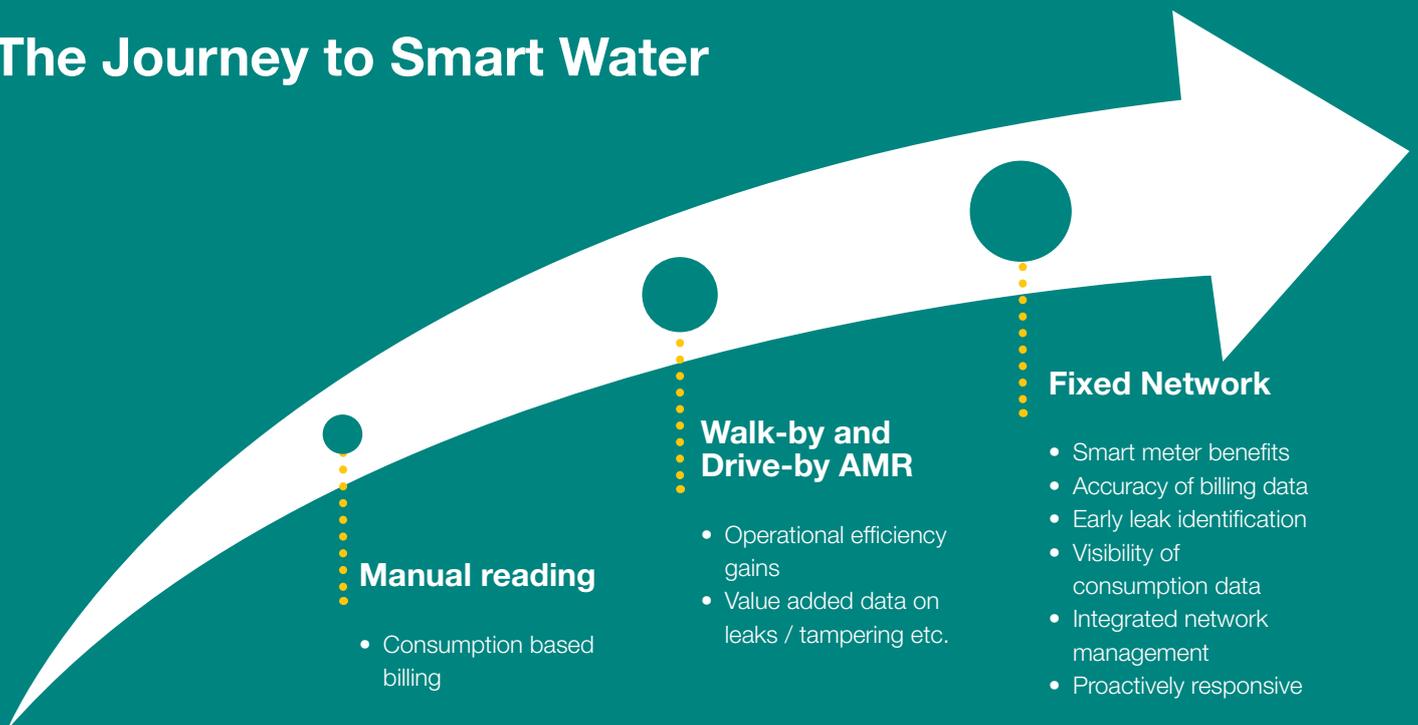
- Over 80 million metering endpoints worldwide

- Over 2 million iPERL water meters installed worldwide

- Over 16 million smart endpoints connected to AMI networks in service

- Over 40 million smart endpoints connected or contracted to AMI networks

## The Journey to Smart Water



### Manual reading

- Consumption based billing

### Walk-by and Drive-by AMR

- Operational efficiency gains
- Value added data on leaks / tampering etc.

### Fixed Network

- Smart meter benefits
- Accuracy of billing data
- Early leak identification
- Visibility of consumption data
- Integrated network management
- Proactively responsive

## About Sensus

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Sensus helps water utilities, energy providers and cities do more with their infrastructure to improve the quality of life in their communities. We enable our customers to reach further through the application of technology and data driven insights that deliver efficiency and responsiveness. We partner with them to anticipate and respond to evolving business needs with innovation in communications technologies, advanced metrology, data analytics and services.

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