

The Future of Efficient Meter Reading Introducing: FieldLogic FlexRead



Our History

1931 - Charles Irving Thornburg created the C.I. Thornburg Company as the experts for pipe, Valves, and fittings in Huntington, West Virginia.

1958 - Web Morrison purchased the company with the vision of providing contractors and municipalities everything they need to take water from the source, deliver it to the consumer, and return it back to the source.

2020 - With Web's vision achieved, we renamed the company CITCO Water to reflect our growth and experience in the water and wastewater industry.

2025 - It's an exciting position to be in-offering our customers a vast array of products and services, from chemicals, supplies, design expertise, smart technology, upgrades, repairs, to even investing in their infrastructure at no cost to them. We now have over 180 employees and eleven full-service branches that serve West Virginia, Kentucky, Tennessee, Indiana, North and South Carolina, and Southern Ohio.

Tomorrow - We will continue to expand our products and solutions to meet our customers ever-evolving needs.



Solutions driven.

For the past 60 years, the Morrison family and generations of employees have carried out the goal by consistently developing new solutions for our customers.

Not only has CITCO Water remained family-owned and operated, we have continued the personal face-to-face customer relationships that we were founded on.

Commitment given.

At CITCO Water, we listen to our customers. We know their problems and what keeps them awake at night. We strive to develop solutions to those challenges and more. After decades of experience, we are able to anticipate problems and develop unique solutions you don't even know you need yet.

Today, if you are in the water or wastewater business, we have every solution you need—chemicals, meters, engineering and technology, inventory management, Smart City capabilities, hardware, and repair.

The Future Of Water Is Today

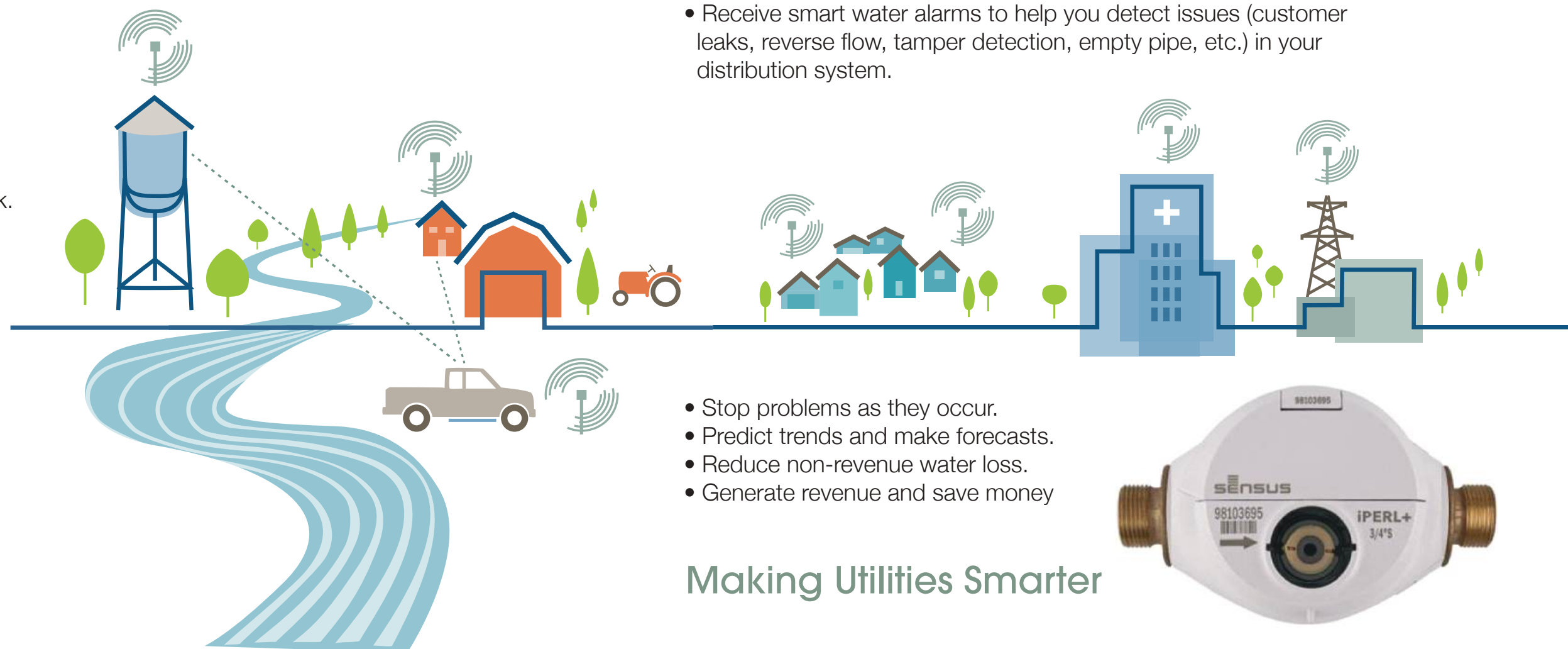
CITCO Water is committed to providing our customers the highest quality solutions available along with cutting-edge technology.

We're the exclusive distributor of Sensus Smart Water Meters in West Virginia, Kentucky, Tennessee, and 9 Southeastern Ohio Counties.

The 2 Types Of Smart Metering Systems

01 Automated Meter Reading (AMR)

- Improve accurate readings and capture more revenue.
- AMR systems consist of radios/modules installed at residential and commercial meters as well as distribution points within the utility network.
- Endpoints read and store data that's retrieved with mobile, handheld, and network devices.
- Touch-read, radio-read, walk-by, and drive-by technologies.
- Retrieve data electronically to insert into your information and control systems.



- Stop problems as they occur.
- Predict trends and make forecasts.
- Reduce non-revenue water loss.
- Generate revenue and save money

Making Utilities Smarter



02 Advanced Metering Infrastructure (AMI)

- The ultimate Smart Water System that you can install.
- AMI systems use technologically advanced meters with powerful long-range radio systems that communicate with a base station and network devices.
- AMI systems can be configured for large-scale multi-application networks (residential, commercial, and industrial accounts).
- Read meters from your desk in the office.
- Make “turn ons” and “turn offs” with the click of a mouse.
- Collect real-time data (temperature, pressure, chlorine residual, etc.) anywhere in your system.
- Receive smart water alarms to help you detect issues (customer leaks, reverse flow, tamper detection, empty pipe, etc.) in your distribution system.

CITCO METER



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Smart Metering
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Sensus

888.919.4185

Workflow Revolution. Seamless Transition.

Introducing

FieldLogic FlexRead The Future of Efficient Meter Reading

The Sensus FieldLogic FlexRead replaces your existing Sensus AutoRead & AutoVU applications and brings your meter reading process into the Sensus Field Logic Cloud.

Benefits

Accessibility and Flexibility

With a cloud-based system, you can access data and manage operations from anywhere with an internet connection, eliminating the need to be physically tied to a local server or specific workstation.

This makes it easier for teams to work remotely or across multiple locations and produces fewer support calls due to Windows based connectivity issues to meter reading equipment or driver issues.



Data Security and Recovery

Cloud providers invest heavily in security measures—like encryption, firewalls, and regular backups—that might be cost-prohibitive for a local system.



Scalability

Cloud solutions grow with your needs.

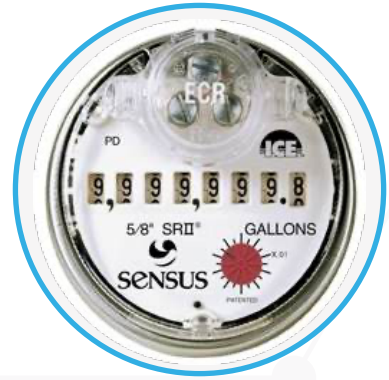
As your operation expands—whether it's adding more meters, users, or data points—the system can scale up seamlessly without requiring significant hardware upgrades or overhauls, which is often a limitation with local setups.

**Less Hassle.
More Powerful Capabilities.**

The Sensus FieldLogic FlexRead Cloud-Based solution supports the following devices:



Transitioning to the Sensus FieldLogic FlexRead Cloud-Based solution offers a more agile, cost-effective, and future-proof way to manage meter reading operations, with less hassle and more powerful capabilities.



⋮

Manual Read Meters

Touch (Wand)
Read Meters



⋮

Android OS 13 Devices
Command Link Radio Read
Sensus Smartpoint Radios



iOS Devices
Command Link Radio Read
Sensus Smartpoint Radios



⋮

Vehicle Gateway
Base Stations (VGB)
Radio Read





Sensus FieldLogic Flex Read



Real-Time Insights

Cloud systems enable real-time data collection and analysis. For an AMR (Automatic Meter Reading) solution, this means you can monitor usage, detect issues like leaks, and generate reports instantly, improving decision-making and customer service compared to the slower, batch-processing nature of many local systems.

Internet access is not required for meter reading.



Future Proof

The Sensus FieldLogic FlexRead allows for easy cloud based upgrades and future additions not previously possible.

FieldLogic Hub

[_Xylem CitcoWater](#)
[_Xylem_Demo](#)

Routes / Cycle 67

Cycle 67

Have Notes
 Have Violations
 Alarm(s)
Status: Any

Meters Count
65

Expected Method: Any
Utility Type: Any
Assignment: Any

Status	Meter Number	Radio IDs	Service Address	Account ID	Expected Method	Utility Type	Route Order	Assignment
✓	020058620	133819526	3391 SUMMITRUN DR INDEPENDENCE KY 41051	0000834025	SmartPoint	Water	1	NKWD Loaner
✓	020060265	134609306	3139 SUMMITRUN DR INDEPENDENCE KY 41051	0000824100	SmartPoint	Water	2	NKWD Loaner
✓ ⚠	020053139	134312144	2746 SYCAMORECREEK DR INDEPENDENCE KY 41051	0000822595	SmartPoint	Water	3	NKWD Loaner
✓ ⚠	020057733	135017644	3339 SUMMITRUN DR INDEPENDENCE KY 41051	0483120155	SmartPoint	Water	4	NKWD Loaner
✓	020058578	134329890	2768 PARKERRIDGE DR INDEPENDENCE KY 41051	0000840980	SmartPoint	Water	5	NKWD Loaner
✓	020060175	134911670	6214 WHITEBARK CT INDEPENDENCE KY 41051	0000822615	SmartPoint	Water	6	NKWD Loaner
✓ ⚠	020060299	135023468	811 STEVIE'S TRL INDEPENDENCE KY 41051	0000822375	SmartPoint	Water	7	NKWD Loaner
	020060308	134301892	2930 SUGAR CAMP RD	0000842005	SmartPoint	Water	8	NKWD



Sensus FieldLogic Flex Read

Mapping

Whether your billing system provides GIS meter location information or not, the new Sensus FieldLogic FlexRead solution offers a Map Based Interface of meter routes you read within your system based on GPS coordinates or their associated service address.

FieldLogic Hub

Routes / Cycle 67

Cycle 67

Filter Have Notes Have Violations **Alarm(s)** Status: Any **Meters Count 65**

Expected Method: Any Utility Type: Any Assignment: Any

Map Legend: 📍 Devices 🔴 Incomplete 🟢 Complete 🟡 Alarm/Violation

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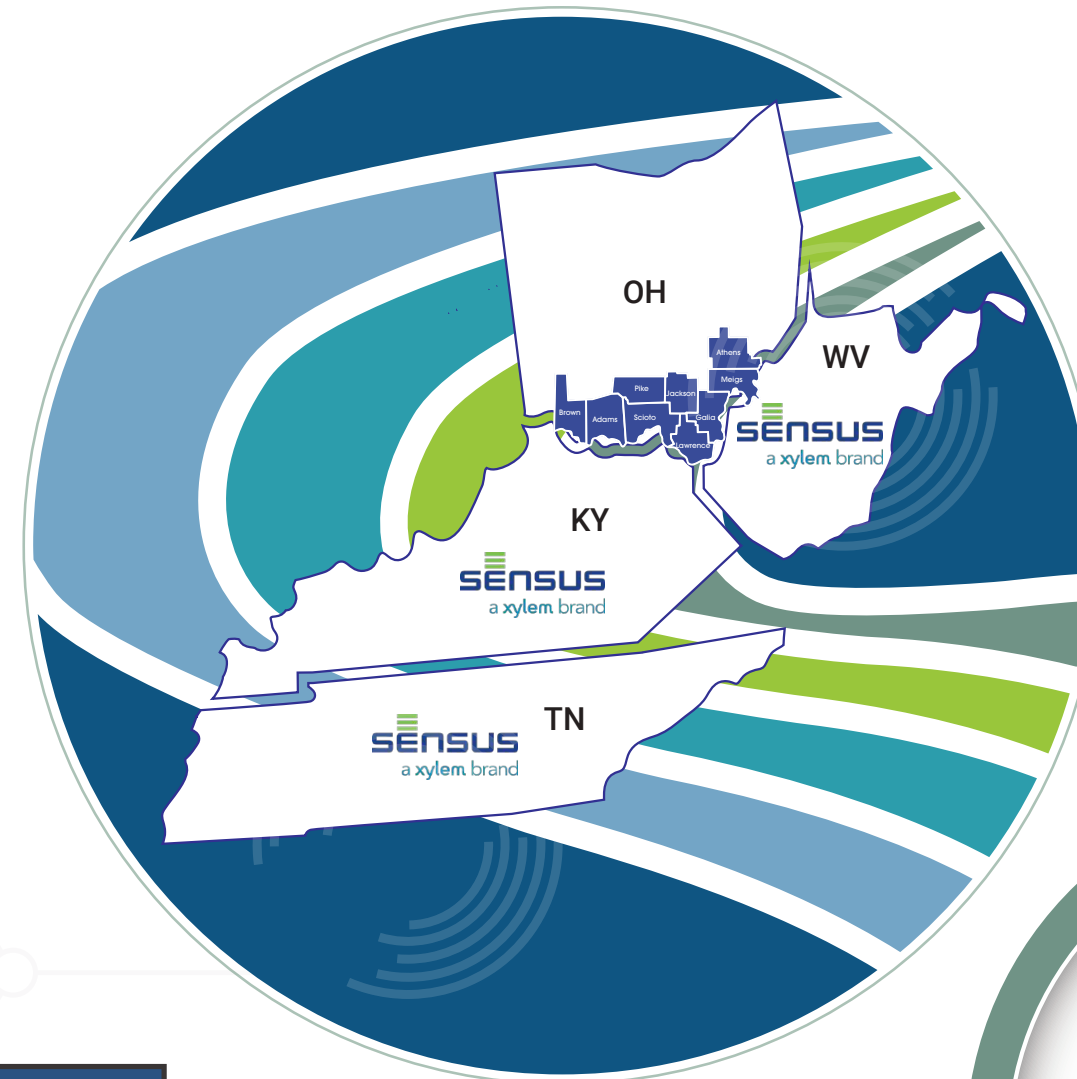


**Sensus
FieldLogic Flex Read
Contact**



Contact your CITCO Water representative today for a personalized demonstration custom to your organization.

This presentation will show you and your team the ease and accessibility of moving forward with your Sensus Software.



**Smart Metering
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CitcoWater.com

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Cost-Saving.
Revenue-Generating.**

**iPERL+:
The Future of Efficient Meter Reading**

iPERL+ redefines water metering, offering an integrated solution that not only ensures seamless system compatibility but also maintains unmatched accuracy in water usage measurement for your utility. With enhanced data logging capabilities and a choice between polymer and metal flow tube casings, iPERL+ is tailored to meet the unique needs of your utility.

iPERL+ Features & Benefits:

- Accuracy:**
 - Offers \pm accuracy at low flow (0.03 gpm or 0.007 m³/hr).
 - High accuracy across a wide range of flow rates, ensuring precise measurement.
- Data Logging:**
 - Advanced data logging capabilities for detailed usage analysis
 - Logs hourly, daily, and monthly consumption data.
- Installation Flexibility:**
 - Can be installed in various orientations: horizontal, vertical, or diagonal.
 - Suitable for new installations or retrofits.

CITCO METER



Meter Sizes:

- Available in several sizes to accommodate different pipe diameters:
- 5/8" x 3/4"
- 3/4"
- 1"

Material Options:

- Flow tube available in polymer for non-corrosive environments or metal for rugged conditions.

Operating Conditions:

- Temperature range: from near freezing to 105°C (221°F).
- Pressure rating up to 150 psi (10.3 bar).

AMI/AMR Compatibility:

- Designed for integration with Sensus FlexNet® communication system or other AMI/AMR systems for remote reading.

Water Conservation:

- Detects leaks and micro-leaks due to low-flow sensitivity, aiding in water conservation efforts.

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Revenue-Generating.**

iPERL+ Features & Benefits, Con't:

Maintenance:

- Low maintenance design with no moving parts in the measurement chamber, reducing the need for frequent servicing.

Certifications and Standards:

- Complies with AWWA C715 standards for cold water meters.
- NSF/ANSI 61 certified for safe drinking water.

Measurement Range:

- Very low to high flow rates, making it versatile for different usage scenarios.

Battery Life:

- For AMR versions with battery-operated registers, lifespan can be significant, often exceeding 20 years.

Display:

- Encoded register provides a clear, easy-to-read display of consumption data.

Durability:

- Designed to withstand harsh environmental conditions, ensuring long term reliability.

CITCO METER



Benefits for Utilities:

- Reduces non-revenue water through accurate measurement.
- Enhances billing accuracy and customer trust.
- Supports demand management and conservation programs.

Installation Considerations:

- No straight pipe requirements, making it easier to install in constrained locations.

Customer Support:

- CITCO Water offers technical support, installation guides, and training for the iPerl+ meter.



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**ally®:
Electromagnetic Flow Measurement with Remote
Management Valve**

The Sensus ally® water meter features an integrated 3-state valve, temperature and pressure sensors and alarms. ally has no moving parts and is based on our innovative electromagnetic flow measurement technology.

The patented measurement technology of the ally meter provides continuous and enhanced accuracy ranges at both low and high flows and perpetual accuracy over the life of the product. Accuracy is not effected by various flow conditions, disturbances, or particulates in the water system. The ally meter has a 15-year life cycle, along with a 15-year accuracy warranty.

ally® Features:

- 5/8", 5/8" x 3/4", 3/4", and 1" sizes available in potable and reclaim versions.
- Starts registering flow as low as 0.03 gpm (0.007 m³/hr).
- Can be installed horizontally, vertically or diagonally.
- Compatible with current Sensus AMI systems.

CITCO METER



ally® Benefits:

- Control three states of water flow remotely (on, off, reduced)
- Detect leaks to save money and conserve water.
- Monitor pressure conditions and temperature conditions.
- Smart alarms including empty pipe, high flow, reverse flow, low and high pressure and temperature, customer leak and tamper.



CITCO METER

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ally®, con't.:

Electronic Register

The high resolution 9-digit electronic register was designed to eliminate dirt and moisture contamination in pit settings. The tempered glass register cover displays readings with the AMI digits highlighted.

Direction of flow, rate of flow and units of measure are also easily readable on the register display. The ally register features programmable AMI resolution and unit of measure, and integral customer data logging of up to 120 days.

The display includes battery life, empty pipe, forward/reverse flow, flow rate, leak and tamper, valve, pressure, and temperature indicators.

Additionally, the register displays temperature and pressure values, valve state, and active and recent alarms.

Tamperproof

The integrated construction of the ally meter prevents removal of the register to obtain free water. The magnetic tamper and low field alarms will both indicate any attempt to tamper with the magnetic field of the ally meter. The meter communication alarm indicates a possible cut cable.

Smart Alarms

ally meters have many configurable smart alarms designed to protect your utility's investment, enhance customer service, and monitor/optimize distribution systems. These alarms include:

- Empty pipe
- Tampering
- Customer Leak
- Low Battery
- Reverse Flow
- High Flow
- Pressure
- Temperature



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Cost-Saving.
Revenue-Generating.**

**Cordonel®:
Ultrasonic C&I Water Meter**

Cordonel® is an innovative ultrasonic C&I water meter with patented flow technology that measures low-to high-volume flow with unmatched accuracy. Equipped with pressure and temperature sensing, alarms, and data storage, it fills a critical need in commercial, industrial, and irrigation markets.

Superior Accuracy

Cordonel's patented flow rate technology ensures that every drop of water passes through one of its three individual measuring paths. Cordonel's horizontal and vertical pipe orientations means no straight upstream and downstream pipe requirements; measurements are accurate even behind a 90-degree bend. With solid-state ultrasonic engineering and reliable readings over its 20-year battery life, Cordonel delivers accuracy unmatched in the industry.

Cordonel® Features:

- Advanced UOD0 capability - zero straight pipe requirements.
- Installation in horizontal and vertical pipe orientations.
- LCD for consumption, flow, temperature, pressure (optional) and status information.

CITGO METER



Cordonel® Features, con't.:

- NFC wireless interface for readout of the last volume reading.
- Optional pulse output with programmable weights and widths.
- Removable measuring chamber for 6" and larger meters.
- 180 days of hourly consumption, pressure, and temperature data logging.

Cordonel® Benefits:

- Maintenance free.
- No accuracy degradation.
- Secure encrypted data transmission.
- 20-year warranty in normal operating conditions.

Cordonel® Applications:

- Residential, irrigation, and commercial.
- AMI and AMR output.
- Hot water measurement up to 122°F.
- High, low, and variable flow monitoring.
- Leak detection and pulse output capability.

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Cordonel® con't.:

Conformance to Standards

The Cordonel Ultrasonic water meter meets and far exceeds the most recent revision of AWWA Standard C715 class I & II.

Each meter is performance tested to ensure compliance. All Cordonel Ultrasonic water meters are NSF/ANSI Standard 61, Annex F and G approved latest standards.

Smart Alarms

Empty Pipe

- Detects the absence of water in the flow tube and sends an alert. Allows you to identify main breaks downstream and water shortages for quicker resolution to ensure water availability. This alarm can also indicate the water meter has been removed from service, or notify you of potential tamper.

Customer Leak

- Detect continual consumption of water over a period of time to indicate downstream leaks. This protects your utility, infrastructure and customers through alarm notifications that can reduce water loss and leak adjustment costs.

CITGO METER



Low Battery

- Replace your meters before they stop recording consumption through alerts indicating battery capacity to the meter or valve is running low.

Reverse Flow

- Keep untreated water from re-entering your distribution system and deter tampering attempts through an alarm triggered when reverse flow is detected at the meter.

High Flow

- Detect broken pipes and reduce property damage through an alert triggered by the detection of excessive flow rates.

Pressure

- Get alerted when water pressure exceeds or falls below the pressure threshold to prevent potential disruptions of service. Standard in 3" and above; optional in 1.5" and 2"s.

Temperature

- Get alerted when water temperature exceeds or falls below the temperature threshold so you can take action to better protect your meter and water network assets.

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**OMNI™+ Compound (C²) Water Meter
1-1/2", 2", 3", 4", 6", 8" and 10"**

Performance

The patented measurement principles of the OMNI+ C² meter ensure greater accuracy, expanded accuracy range and longer service life than any other comparable class meter. The OMNI+ C² meter has no restrictions on sustained flow rates within its continuous range. The floating ball measurement technology allows installation in any orientation and flows up to maximum rated capacity without undue wear or accuracy degradation.

Construction

The OMNI+ C² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet.

The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and an AWWA compliant strainer.

CITGO METER



Magnetic Drive

Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.

Measuring Element

The hydro-dynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI+ C² meter.

OMNI+ Electronic Register

The OMNI+ electronic register is hermetically sealed with an electronic pickup containing no mechanical gearing. The OMNI+ register features a programmable totalizer registration, an optional digital pulse signal, AMI/ AMR reading digits, and a resettable test totalizer. The large, easy-to-read LCD also displays both forward and reverse flow directions. The OMNI+ tamper-proof security cover can be positioned in any of 270 degrees of rotation, with indexing points at each of the 90-degree customary register viewing positions.

**Industry-Leading.
Cost-Saving.
Revenue-Generating.**

**OMNI™+ Compound (C²) Water Meter, con't.
1-1/2", 2", 3", 4", 6", 8" and 10"**

Strainer

The OMNI+ C² with the AWWA compliant "V" shaped strainer uses a stainless steel screen along with Floating Ball Technology (FBT). This creates a design that greatly improves accuracy, even in difficult settings. A removable strainer cover permits easy access to the screen for routine maintenance.

AMR/AMI System

Meters and Electronic Registers are compatible with current Sensus AMR/AMI systems and other AMI communication systems that use the Sensus UI1203 protocol.

CITCO METER



Maintenance

The OMNI+ C² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and/or strainer cover can be removed independently.

Replacement parts or complete measuring chambers are available for repairs. OMNI+ C² replacement measuring chambers may also be utilized to upgrade some third-party meters to achieve increased accuracy and extended service life.



Solutions driven. Commitment given.