

kamstrup



Jerome, Arizona

REQUEST FOR PROPOSAL FOR ADVANCED METERING INFRASTRUCTURE SYSTEM

PREPARED FOR: Brett Klein, Town Manager/Town Clerk

DUE: November 5, 2025 | 12:00 PM Local Time

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Town of Jerome, Arizona
Request for Proposal for Advanced Metering Infrastructure System
600 Clark St. Jerome, AZ 86331

Fortiline Waterworks is pleased to present this Letter of Transmittal and our response to the RFP referenced above. Our response is based upon a detailed review of the requirements and assembled in order to exceed the needs and desires of the Town of Jerome for a turn-key Advanced Metering Infrastructure (AMI) system to replace it's existing metering system.

Jerome's desire to move to more accurate and reliable technology shows vision, an understanding of AMI's ability to improve customer service and a desire to conserve valuable water resources by reducing waste. Incorporated in 1997, Fortiline has over 70 locations serving 23 states and is the third largest full-service provider to the water, wastewater, utility, and construction industries in the country. Our experience enables us to anticipate and address the Town of Jerome's specific needs, ensuring a seamless and responsive partnership throughout the life of the system.

We are excited to collaborate with Kamstrup to present the Town of Jerome a range of exceptional water meters. As a global supplier of ultrasonic water meters, having made their first in 1991, Kamstrup now sells their meters in over 80 countries around the world. Kamstrup's US headquarters is located in Cumming, GA.

Kamstrup meters have proven to be highly reliable in the field, with a historic global failure rate of less than 0.5%. Combined with a starting low flow rate of 0.008 gpm and guaranteed new meter accuracy for the 20-year warrantied life of the meter, it's easy to see why utilities name Kamstrup as their brand of choice.

Fortiline's partnership with Kamstrup allows us to bring a long-term AMI solution that is accurate and reliable while maximizing the value of Jerome's's investment. Together, with our proven expertise, Fortiline and Kamstrup are uniquely equipped to meet all of the Town of Jerome's needs outlined in this response by delivering reliable, efficient, and tailored support every step of the way.

We further certify that this proposal has been prepared and submitted independently and without collusion, consultation, or agreement with any other individual or entity submitting a proposal pursuant to this RFP.

Should you have any questions about the proposal please feel free to contact Rhonda Duran at (602) 245-8060 or Rhonda.Duran@fortiline.com.

Thank you for your consideration,

Fortiline Smart Utility Solutions

01 FORTILINE EXECUTIVE SUMMARY

Bringing the Town of Jerome a Total Metering Solution

The Town of Jerome's commitment to modernizing their water distribution system is evident in their Water Meter Replacement Project RFP. The Town's current meter system has aged past the point of accuracy and reliability. Updating Jerome's water distribution system will not only secure safe, reliable, and efficient water service for its residents and businesses, but also reduce the Town's water loss and labor expenses.

Fortiline Waterworks, in partnership with Kamstrup, is proud to present a proven solution designed to address Jerome's water distribution challenges of inaccurate readings leading to high water loss, labor intensive manual reads, and a lack of accurate system data. The Town of Jerome has the opportunity to implement Kamstrup's fully-integrated, smart metering solution that may significantly:

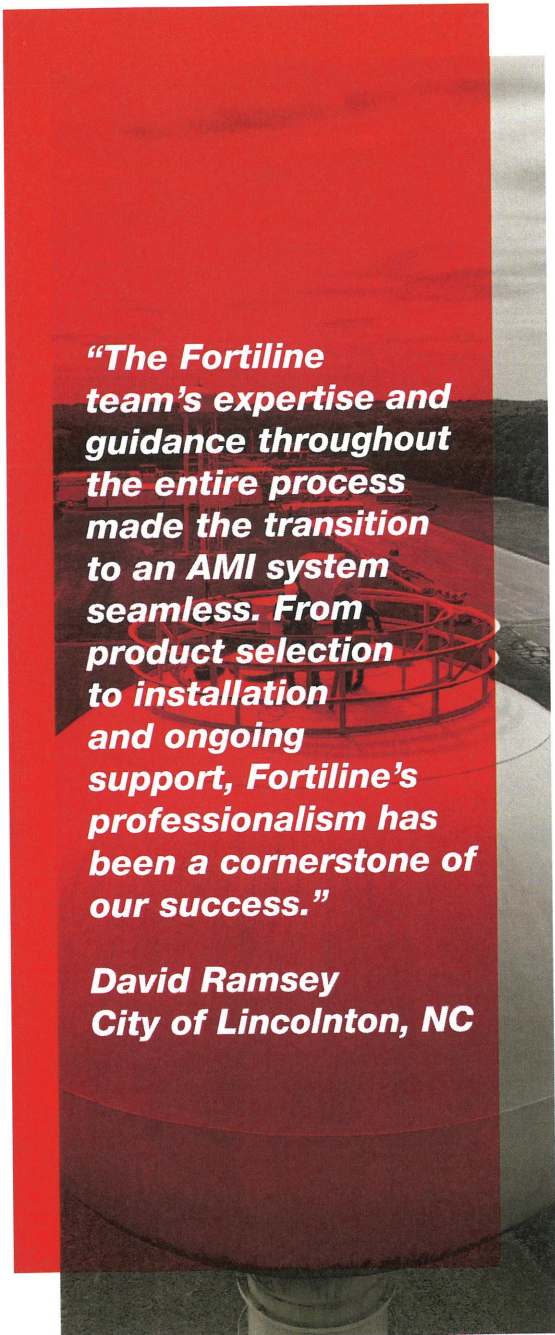
Reduce Water Loss and Increase Revenue

Boost Operational Efficiency and Cost Savings

Enhance Customer Service and Transparency

Drive a Rapid Return on Investment

The Kamstrup solution is more than a metering system, it is a data driven platform that empowers Jerome's water department to work smarter, faster, and with greater control. With the support of Kamstrup's reliable, intelligent metering platform and Fortiline's experienced support team, the Town of Jerome will gain control of its water system, reduce operational costs, and strengthen its service to residents for decades to come.



"The Fortiline team's expertise and guidance throughout the entire process made the transition to an AML system seamless. From product selection to installation and ongoing support, Fortiline's professionalism has been a cornerstone of our success."

***David Ramsey
City of Lincoln, NC***

JEROME'S SHORT-TERM BENEFITS

Kamstrup water meters offer the Town of Jerome a powerful solution to enhance operational efficiency, customer service, and water conservation efforts. By replacing all existing meters with highly accurate ultrasonic technology, these meters will benefit the Town in multiple ways including, but not limited to the following:



PROVIDING NEAR “REAL-TIME” INFORMATION IN THE WATER SYSTEM.

Kamstrup’s AMI water meter reports to the network every three hours. Each radio transmission report contains eighteen hourly readings for redundancy and notification of any active alarms. When an alarm is activated, it is transmitted immediately.



INCREASING THE INFORMATION AVAILABLE WITHIN THE READING SYSTEM.

Kamstrup’s system provides utilities with temperature readings for both metered water and the ambient air, “Burst” alarms for large leaks, and Histogram Data that illustrates the rate and volume at which water has flowed through the meter.



ELEVATING JEROME’S CUSTOMER SUPPORT

When armed with Kamstrup’s AMI Solution, Jerome’s Customer Support and Utility Representatives can access metering data at the push of a button.

LONG-TERM VISION

Jerome's **LONG-TERM VISION** for an AMI system focuses on continued operational efficiency by providing tools and technology it needs to improve water accountability while delivering exceptional service to its residents. Fortiline's response to Jerome's RFP is a combination of the best products in the marketplace and top-tier service. We know there are many solutions available to you, each offering their own value. However, we firmly believe that we are presenting you with the best value and quality service on the market. As you read through the remainder of our response, please remember these key points:



The Kamstrup Meter System WILL reduce your non-revenue water more than any other meter available.



Kamstrup is the easiest AMI system to implement and use.



Kamstrup's historically proven reliability means LESS MAINTENANCE and DATA LOSS than similar systems.

Through this project, the Town of Jerome is investing in a smarter, more resilient water system that delivers measurable operational benefits while meeting the evolving needs of its community. Fortiline Waterworks appreciates the opportunity to partner with Jerome on this critical infrastructure project and is confident that our Kamstrup solution offers the best value, reliability, and long-term benefit for the Town and its customers.

02

FORTILINE

PROPOSED SOLUTION OVERVIEW

The centerpiece of Fortiline Waterworks' proposed solution to Jerome's water metering needs is the Kamstrup flowIQ series meter. The flowIQ series is a leader in the next generation of smart water meters. This electronic, cold water meter has been specifically engineered to provide water monitoring for households, multi-unit buildings, and commercial applications. With size options ranging from 5/8" to 1", the flowIQ 2200 fits the majority of standard meter sizing. For larger applications, the flowIQ 3200 covers sizes from 1½" to 4" while the flow IQ 4200 covers sizes from 6" to 12".

The flowIQ series exemplifies the latest principles in water metering and Kamstrup's company values. Their focus on sustainable accuracy led to the development of this intelligent and compact meter composed of a radio, register, battery, and electronics. FlowIQ meters are hermetically closed and vacuum-sealed. Coupled with the fact that these meters have no internal moving parts to wear down over time, they retain 100% new meter accuracy throughout their lifetime.

Additionally, the flowIQ 2200 is able to begin registering flow rates at as little as 0.008 gpm, 0.035 gpm for the flowIQ 3200, and 1.4 gpm for the flowIQ 4200. This ultra-low flow ability will increase utility revenue by ensuring that the water being produced is being billed for customers with the smallest of leaks are fixing them, thereby conserving Jerome's valuable water resources.

While leak, burst, tamper, and battery alarms are standard within AMR and AMI systems, Kamstrup's meters also provide a "Dry" alarm that sends a notification when a meter is not full of water. Separately, the Kamstrup meter allows for customizable options for alarm ranges for factors such as battery, burst, dry, leak, tamper, and temperature. These personalized options may be programmed in the factory, field, or office through Kamstrup's READY Manager.

Kamstrup's ultrasonic metering system is simple enough to ensure a smooth transition for nearly every customer. Their superior meters, partnered with user-friendly software makes capturing potential water loss and non-revenue water easier than ever before.

WHY CHOOSE

ULTRASONIC WATER METERS

Ultrasonic water meter technology is highlighting just how much water has been left behind by mechanical meters over the last century. By providing utilities the ability to more accurately measure their water usage, the ultrasonic technology revolution is changing how they interact with their customers, operate and manage their business, and how utility employees go about their daily tasks.

BENEFITS AT A GLANCE

Superior Flow Rate Measuring

This ensures Jerome receives payment for the water it supplies, while encouraging residents to promptly address minor leaks and preserve the community's vital water supply.

Industry Leading Reliability

With a failure rate below 0.5% globally, it is technology you can put in and continue to rely upon for years to come. Fewer failures means less maintenance and more productivity.

Simplest AMI System

A meter, collector, READy Converter, and software on an Android device and Windows PC are all you need. Basic training for Kamstrup software takes hours, not days.

Long-term Solution

Ultrasonic meters have no internal moving parts to wear down over time. Ultrasonic meters have 98.5% accuracy throughout their lifetime making them simpler and easier to maintain.



KAMSTRUP'S REVOLUTIONARY AMI SYSTEM INCLUDES:

01

flowIQ 2200, 3200, & 4200

02

AMI COLLECTOR

03

READY CONVERTER

04

READY MANAGER

05

ANDROID DEVICE

KAMSTRUP

flowIQ METER SERIES

Our partnership with Kamstrup allows us to offer the Town of Jerome the flowIQ meter series, a comprehensive lineup of smart water meters designed for residential, commercial, and industrial applications.

Why Choose Kamstrup's flowIQ Meter Series?

Kamstrup's ultrasonic water meters provide unmatched accuracy, durability, and intelligence, helping utilities:

- Reduce non-revenue water with highly accurate, near real-time measurement
- Improve billing accuracy with industry-leading low-flow reading capabilities
- Enhance operational efficiency with remote data access and advanced diagnostics
- Lower maintenance costs with no internal moving parts and long battery life

"Once all of our meters are changed, our revenue increase may reach \$500,000 per year with the low flows we get from the [Kamstrup] meter."

*Josh Miller
Assistant Utilities Director
St. Lucie West Services District, FL*

The flowIQ meter series is more than just a collection of meters, it's a breakthrough in water metering technology, setting new standards in **accuracy, durability, and efficiency**. As ultrasonic meters, they deliver pinpoint precision and unmatched longevity, ensuring utilities and customers benefit from reliable and precise measurements for decades.

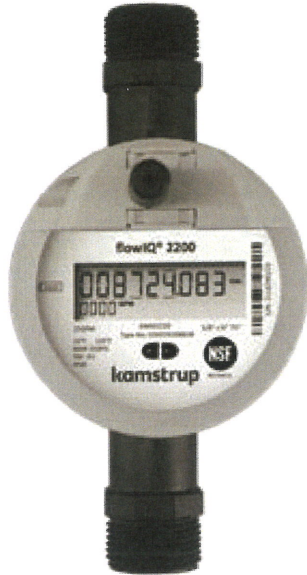
Kamstrup has built a global reputation of industry-leading reliability, with an astonishing **meter failure rate of less than 0.5%**, a testament to their unwavering commitment to quality. Backed by a 20-year warranty for meters 1" and smaller, and a 10-year warranty for those 1 ½" and above, the flowIQ series is more than just a new meter, it's an investment in long-term accuracy and performance.

Designed for maximum efficiency, the flowIQ meter series can **detect flow rates as low as 0.008 gallons per minute**, ensuring that every drop of produced water is accounted for. This ultra-low flow detection not only maximizes utility revenue but also empowers customers to detect and address even the smallest leaks, ultimately conserving valuable community water resources.

MEET THE METERS

flowIQ 2200 – THE IDEAL RESIDENTIAL SOLUTION

The Kamstrup flowIQ 2200 is designed for single-family homes and multi-unit buildings. With size options ranging from 5/8" to 1", the flowIQ 2200 fits the majority of standard meter sizings.¹



Key Features

- Highly precise ultrasonic measurement for cold and reclaimed water²
- Leak detection and water conservation with Acoustic Leak Detection (ALD)
- Ultra-low flow detection (starting at 0.008 GPM) for capturing minimal water usage. Guaranteed measurement accuracy from 0.05 to 55 gpm
- Hermetically sealed, vacuum-protected electronics to prevent humidity damage
- NSF/ANSI 61-certified lead-free materials for safe drinking water
- Long-lasting lithium battery with up to 20 years of operation

flowIQ 3200 – SMART METERING FOR SMART BUSINESS

The Kamstrup flowIQ 3200 is designed to revolutionize water management for residential, multi-unit, and light commercial applications. With size options ranging from 1 1/2" to 4", the flowIQ 3200 fits the majority of standard meter sizings.



Key Features

- Constructed from high-performance thermoplastic and 316L stainless steel, free from lead and other heavy metals
- Compliant with **AWWA C715-18** and **CN1044** fire service meter guidelines
- Low head loss design, reducing back-pressure and lowering energy consumption
- Begins measuring flow at 0.035 gpm. Guaranteed measurement accuracy from 0.4 to 700 gpm
- NSF/ANSI 61-certified lead-free materials for safe drinking water
- Powered by a long-lasting lithium battery with an operational life of up to 20 years, minimizing maintenance and replacements
- Integrated ALD sensors available in select sizes

¹ Please refer to the flowIQ2200 Data Sheet for further details.

² For information concerning reclaimed water specifications, contact your local meter specialist.

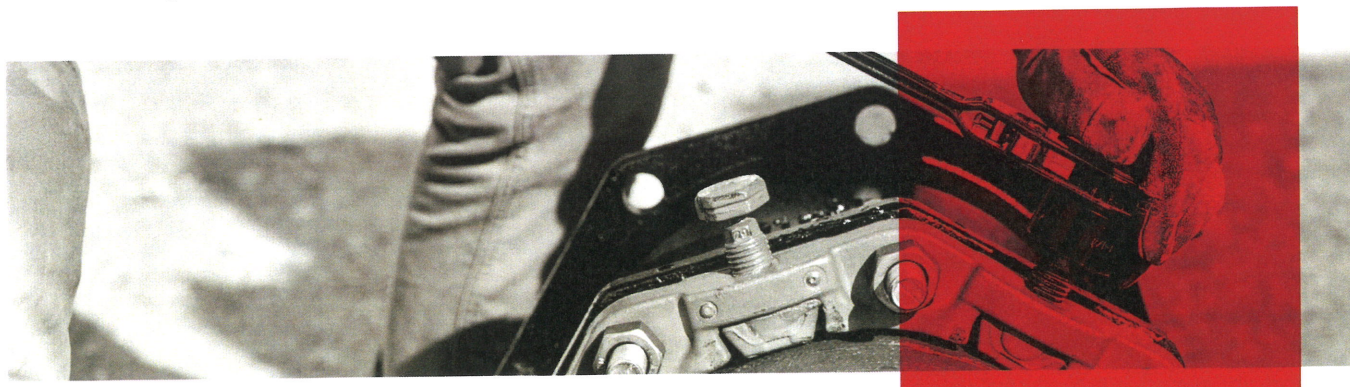
flowIQ 4200 – INDUSTRIOUS METERING

The Kamstrup flowIQ 4200 is engineered for commercial, industrial, and multi-unit residential applications. With size options ranging from 6" to 12", the flowIQ 4200 fits the majority of standard large meter sizings.

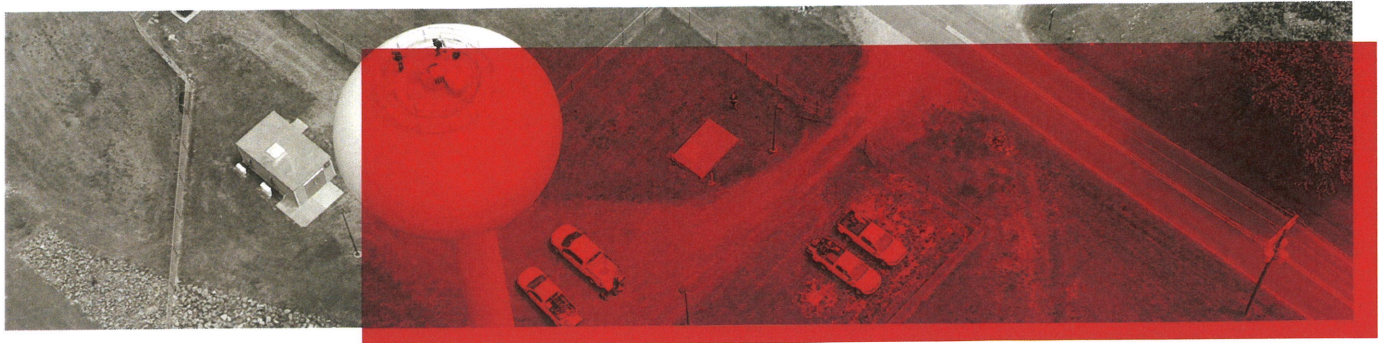


Key Features

- Hermetically sealed, vacuum-protected electronics to prevent humidity damage
- Begins measuring flow at 1.4 gpm. Guaranteed measurement accuracy from 2.8 to 1400 gpm¹
- NSF/ANSI 61-certified lead-free materials for safe drinking water
- Coated split flanges constructed of Cast Iron
- Field-replaceable battery with a 20-year lifespan, reducing waste and lowering the total cost of ownership
- Constructed from 316L stainless steel and high-performance thermoplastic, ensuring durability and compliance with NSF/ANSI 61 Drinking Water Standards



¹ Accuracy range varies according to meter size. Please refer to attached Data Sheet for further information.



COMMUNICATION OPTIONS

The flowIQ Series supports a variety of communication options, depending on meter type:

- **AMR - 450-470 MHz (RF)**
- **AMI - 912.5, 915, or 918.5 MHz 0 Wireless Radio (RF)¹**

RADIO FREQUENCY COMMUNICATIONS

Advanced Metering Infrastructure - AMI

Kamstrup's Advanced Metering Infrastructure (AMI) network leverages an FCC-licensed radio frequency (450–470 MHz) to deliver reliable, long-distance data transmission with minimal signal loss. By helping each utility secure a licensed frequency, Kamstrup ensures that utilities own the rights to their network and benefit from lower infrastructure costs.

Key Features

- **Low-Band Frequency:** Propagates effectively through vegetation and over long distances, reducing the need for extra collectors and repeaters.
- **Secure Data Transmission:** Standard encryption protocols protect transmitted data at every stage.
- **Automatic Power & Path Optimizations:** Dynamically selects the best collector and transmission strength for each meter, ensuring top-tier reliability.
- **Dual-Band Radios (AMI & AMR):** Even in AMI mode, meters can be read via fallback AMR without reprogramming, offering total flexibility.
- **Near Real-Time Data:** Utilities receive frequent updates without needing a vehicle or staff on site.
- **Proactive Maintenance & Alarms:** Continuous or scheduled transmissions allow quick detection of leaks, tampering, and abnormal usage, reducing water loss and improving customer service.

¹ This version is intended for use with Wireless M-Bus – US Localization of European standard for remote reading of meters EN 13757-4.

ACOUSTIC LEAK DETECTION (ALD) TECHNOLOGY

Kamstrup's Acoustic Leak Detection (ALD) Technology is a sophisticated system designed to detect and locate leaks within a municipality's water distribution network. Using advanced sensors and algorithms within the meters themselves to monitor your network continuously, this technology provides real-time insights into the condition of your infrastructure.

PRECISE LEAK DETECTION

Kamstrup's ALD Technology excels in pinpointing leaks with a high degree of accuracy, regardless of their size or severity. By detecting leaks early, you can prevent water loss and minimize infrastructure damage.

REAL-TIME MONITORING

Stay ahead of potential issues with continuous real-time monitoring. The system offers timely alerts when it identifies a potential leak, enabling proactive responses and reducing downtime.

COST SAVINGS

Addressing water loss and preventing infrastructure damage can lead to significant cost savings. By investing in ALD technology, you can reduce water expenses and lower maintenance costs.

ENVIRONMENTAL RESPONSIBILITY

Reducing water waste is a crucial part of environmental stewardship. By conserving water resources and minimizing energy consumption, you will contribute to sustainability efforts.

IMPROVED CUSTOMER SERVICE

Maintaining reliable service ensures customer satisfaction. With Kamstrup's technology, you can enhance service reliability, earning you the trust of your customers.

SCALABILITY

ALD Technology is adaptable to suit utilities of various sizes. It seamlessly integrates with existing infrastructure, ensuring a flexible solution for your specific needs.

DATA-DRIVEN DECISIONS

Our system provides valuable data insights that will allow you to analyze consumption trends, track performance, and optimize network operations efficiently.

EASE OF IMPLEMENTATION

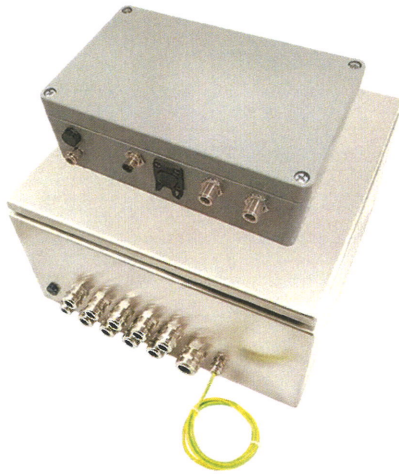
Fortiline's team ensures a straightforward installation process and offers unparalleled support to guarantee seamless integration with your existing meters and control systems.

This technology identifies leaks of all sizes, enabling their prompt repair, restoration of water resources, and minimizing losses to municipalities. The ALD features of the flowIQ 2200 & 3200 meter may be utilized at any point during the life of the meter with the purchase and activation of the Leak Detector software.

ADDITIONAL HARDWARE

KAMSTRUP READY COLLECTOR¹

The READY Collector is a central, two-way network component designed for Advanced Metering Infrastructure (AMI) systems. Built to withstand harsh conditions, it reliably collects consumption data from up to 25,000 water meters and relays that information to Kamstrup's READY Manager software. Its robust design eliminates the need for coaxial cabling, using straightforward wiring between a Collector Top and a Base unit.



Key Features

- **Two-Way Communication:** Ensures fast, secure, and intelligent data exchanges with meters.
- **Rugged Construction:** Built for elevated or hard-to-reach installations, including water towers or storage tanks.
- **High-Level Security:** Provides individual encryption keys, ensuring protected data transmissions.
- **Automatic Event Alerts:** Transmits warnings and alarms in real time for proactive maintenance.
- **Plug-and-Play Components:** The Collector Top and Base are easy to install, replace, or upgrade.

KAMSTRUP READY CONVERTER (ADVANCED)

The READY Converter Advanced is a portable, all-in-one solution for drive-by or walk-by meter reading. It uses Wireless M-Bus technology (912.5–918.5 MHz) to collect consumption data from smart water meters and sends it to a smartphone or tablet. Its lightweight, battery-powered design makes it ideal for utilities transitioning to automated reading while maintaining flexibility in the field.



Key Features

- **High-Speed Meter Reading:** Receives data from up to 30 smart meters per second, perfect for drive-by routes.
- **Rugged & Compact:** Packaged in a sturdy suitcase with a durable, rechargeable battery that can last up to 8 hours.
- **Easy Integration:** Syncs data with the READY smartphone/tablet app, eliminating the need for complex infrastructure.
- **Simple Deployment:** Ships with antennas, mobile device holders, and a quick-start guide for rapid setup.
- **Secure Wireless Protocol:** Uses Wireless M-Bus (C mode) with strong encryption to protect consumption data.

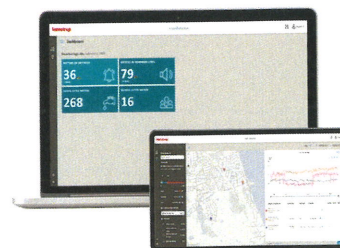
¹ To move the data from the collectors to READY Manager software for viewing by Jerome, the utility should provide an ethernet connection to "hard wire" to the collector's modem, or, a SIM card from their current cellular carrier for 250–500MB of data monthly. Our experience has found most utilities who purchase SIM cards for this pay about \$25 per month per card, but that may vary depending on the utility's cellular plan for their employees.

REMOTE MANAGEMENT & MONITORING

SOFTWARE OVERVIEW

SMART SOFTWARE THAT IS SIMPLE TO USE.

Water utilities today face growing challenges in maintaining accuracy, reducing costs, and improving customer satisfaction. Kamstrup meets these demands head-on with the flowIQ range of ultrasonic water meters, complemented by the powerful READY Manager and READY App software platform. Together, they deliver a streamlined, highly accurate, and scalable metering solution.



During training, Fortiline will work with Jerome to customize the fields visible in READY Manager at no additional cost. If the Town later needs READY Manager connected to other software (outside their billing system), Fortiline and Kamstrup can assist through FTP (File Transfer Portal) or API (Application Programming Interface). FTP interfaces typically cost a few thousand dollars, while more complex ones can reach up to \$10K. API services are included with the Annual Hosting fee.

READY Manager AND APP

READY Manager is Kamstrup's core Meter Data Management (MDM) platform. READY and its mobile app connect seamlessly with flowIQ meters (and other Kamstrup devices) to gather and organize consumption data for water utilities. READY Manager helps utilities to provide customers with precise, verifiable consumption data to quickly resolve billing issues. This visibility is crucial for accurate billing, timely leak detection, and ensuring customers are informed and confident in their usage.

READY Manager Key Features

- **All-in-One Hosted Platform:** Access consumption data, meter alarms, and historical logging in a user-friendly PC interface. All information is securely stored on Kamstrup's servers.
- **Remote Monitoring:** Access near-real-time or scheduled meter readings and alarms, enabling quick detection of leaks, bursts, or tampering.
- **Data Visualization & Reporting:** Graphs and dashboards provide insights into hourly, daily, or monthly consumption patterns.
- **Automated Data Handling:** Schedule meter reads, generate custom reports, and export data to billing, GIS platforms, or other third-party software with minimal effort.
- **User-Friendly Interface:** Requires minimal training, allowing staff to quickly view, manage, and export consumption data.
- **Configurable Alarms and Notifications:** Set leak, burst, and temperature thresholds remotely; receive email or text notifications when an event occurs.



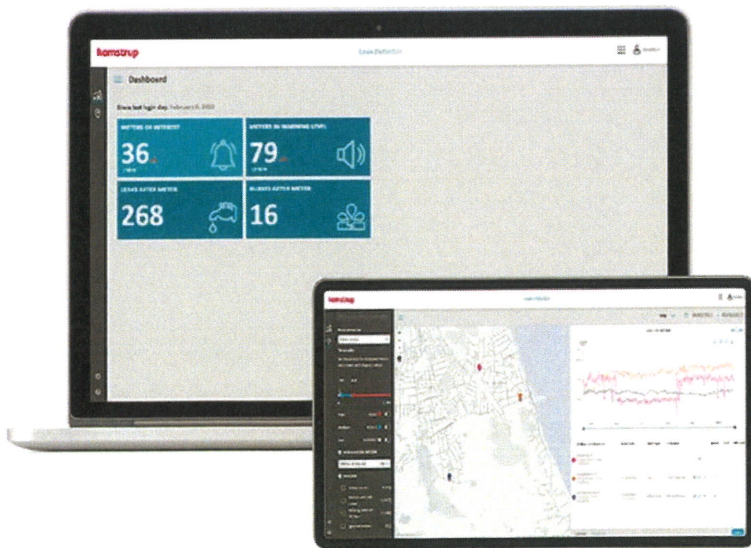
READY App Key Features

- **Mobile Meter Reading:** Pair a smartphone or tablet with a Bluetooth converter for drive-by meter reading—no bulky equipment required.
- **Real-Time Sync:** Update consumption data, meter positions, and installation notes instantly between the field and the office.
- **Integrated Installation Tools:** Check signal strength, configure network components, and replace meters on the spot, with data seamlessly syncing back to READY Manager.
- **Usage Logging:** View meter data logs and info codes on the go, helping field technicians diagnose issues without returning to the office.

LEAK DETECTOR

Proactive Leak Detection & Non-Revenue Water Reduction

Water Intelligence leverages advanced algorithms and continuous data gathering to help utilities pinpoint the root causes of water loss. By analyzing both district and customer level meter data in near real time, you can quickly identify leaks on main lines, service connections, or at customer premises—before they turn into costly emergencies



Real-Time, Visual Insights

- Kamstrup's Leak Detector uses continuous monitoring and advanced algorithms to detect abnormalities in service lines at any flow level, **preventing significant water loss and infrastructure damage**. A dynamic map interface color-codes the riskiest meters, allowing utility staff to quickly pinpoint potential leaks, prioritize repairs, and allocate resources efficiently. By offering real-time analytics and intuitive visualization, Leak Detector reduces non-revenue water, minimizes costs, and enhances overall network reliability.

Data-Driven Decisions, Delivered Simply

Intuitive Web Portal: Access powerful dashboards from any modern browser—no specialized software required.

Seamless Integration: Connect Water Intelligence to your existing Kamstrup READY Manager or other data management systems, ensuring all meter readings, logs, and alarm statuses flow into one centralized place.

Configurable Alerts & Reporting: Tailor alarms for night flows, abnormal consumption, or suspected bursts. Generate visual reports that clearly convey water loss trends and system performance to stakeholders.

Flexible, Scalable, and Secure

Cloud-Based Hosting: Hosted on Microsoft Azure data centers within the U.S., Water Intelligence is designed for reliability, scalability, and compliance with local data regulations.

Minimal Infrastructure: All you need is an internet connection; no additional on-site servers. The platform easily accommodates more meters, districts, or modules as your needs grow.

Mobile Compatibility: Access or review water balances and potential leaks on smartphones or tablets—ideal for field crews needing quick updates.



CUSTOMER PORTAL

H2O ANALYTICS

H2O CUSTOMER PORTAL

Fortiline's proposed Customer Portal solution for the Town of Jerome is provided by H2O Analytics, a browser-based solution that can help the Town of Jerome turn its data into efficiency gains, improved customer satisfaction, and enhanced conservation efforts.

Solution Overview

- Browser-based Portal and Mobile Apps allow your Customers direct access to their meter data
- Integrated with your existing billing and metering systems for quick and easy implementation
- Customers control notification messages for leaks and high use conditions
- Notifications are delivered via email, text message and computerized voice calls
- Delegated administration for full utility control of user account information



H2O Customer Portal allows utilities to go beyond simple monthly statements and engage customers with interactive technologies. Allowing customers to visualize and understand their water usage through intuitive charts, proactive alerts, and notifications improves customer service and encourages changes in customer consumption.

The Customer Portal is browser-based and provides Jerome's customers with access to their account information and notification configuration options. H2O Analytics has the ability to construct private-labeled web, Android, and iOS versions of the Customer Portal, integrating the Town of Jerome's branding into the Customer Portal.

Systems Integrations

The H2O Customer Portal's processes for integrating with Kamstrup's READy Manager are all automated. This allows for the seamless transfer of meter readings and alerts between the two systems. Integrating with the Town of Jerome's preferred billing provider requires access to the utility's billing database, customer account information, and customer contact information.

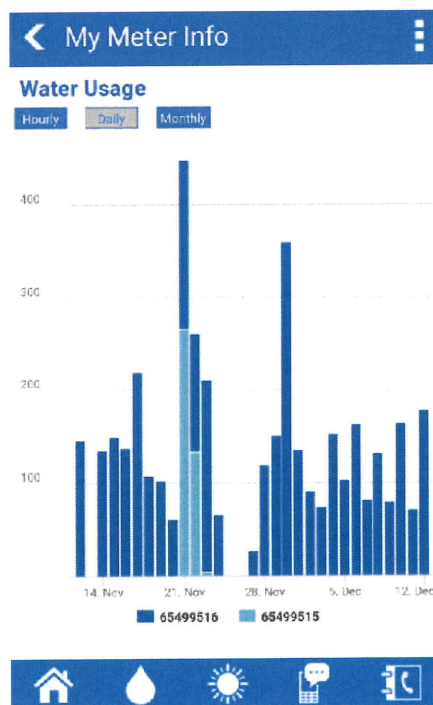
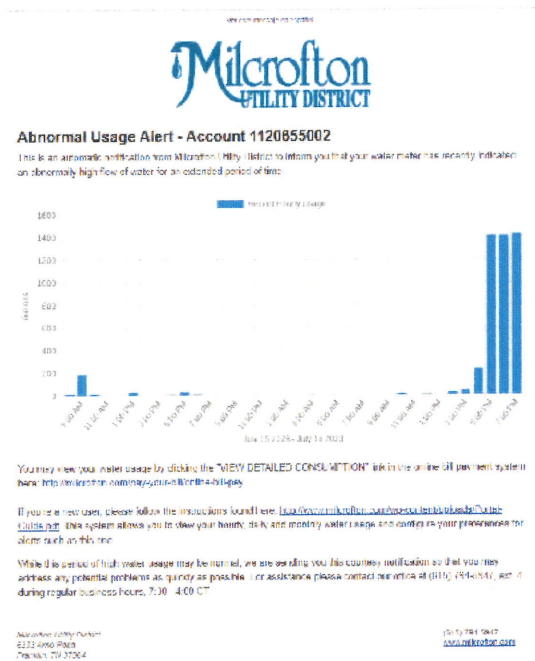
The H2O Analytic Engine provides automated processing of Jerome's in-house billing system and meter data from Kamstrup's READy Manager MDMs. As a cloud-based platform, there is no hardware and very little software required at your location.

Alerts and Notifications

Customer alerts can be triggered from any desired system alert code. Additionally, the H2O Analytic Engine learns your customer's typical water usage schedule and sends an Abnormal Usage alert for non-regular high usage events. The Town of Jerome Utilities Department will also be able to program usage restriction rules. Restriction Violation alerts are sent when those parameters are broken.

The Town of Jerome will be able to reach its customers over multiple channels. H2O Customer Portal allows the utility send notifications via email, SMS text messaging, and computerized "text-to-voice" telephone calls. By supporting all three of these notification protocols, Jerome will be able to reach a larger percentage of its customer than ever before.

Utility personnel will also have delegated administration access. This allows the Town of Jerome to control the user account maintenance. Additionally, utility staff have the ability to record, save, and re-use notification templates. With Field Intelligence, it is just as easy to send notifications out to a map-based selection of customers as it is to send out a mass notification to all your customers.



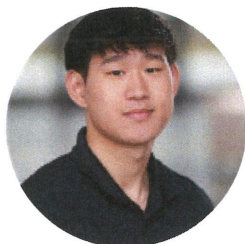
03 | FORTILINE PROJECT MANAGEMENT

Fortiline's exceptional team of Project Managers have over 100 years of combined industry experience. Each member of the Project Management team is dedicated to using our tried-and-true management methods to ensure that your project runs as smoothly as possible. Working together with your staff, our team will accomplish your project goals effectively and efficiently.



RHONDA DURAN | METER SPECIALIST FOR ARIZONA

Rhonda received her bachelors degree from UTEP in Physics and has since built nine years' experience spanning contractor and municipal sales, RFP management, and annual contracts across Arizona and New Mexico. Rhonda combines strong technical expertise with a customer-focused approach. As your Meter Specialist, Rhonda will leverage her industry knowledge to deliver efficient metering solutions to support you in achieving your operational and sustainability goals.



KEVIN SHEN | PROJECT MANAGER

Kevin Shen received his BA in Commerce and Business from Rhodes College. His work experience has revolved around the waterworks industry. As your Project Manager, Kevin will work with the Town's personnel to ensure clear communication between the utility, Fortiline, and Kamstrup. He will be available to answer questions you may have and will work with you every step of the way.



JOE FERGUSON | REGION METER MANAGER

Joe's role in the project is to support the Fortiline team and work as a liaison with Kamstrup in achieving the desired project goals. Joe brings over 20 years' experience working with several meter lines to provide solutions to water utilities across the southern and eastern United States. His background in AMR and AMI solutions with multiple manufacturers gives him a unique perspective and the ability to ensure successful project delivery.



CALEB JONES | NATIONAL METER DIRECTOR

As National Meter Director, Caleb supports the PM team with technical and administrative guidance. With a Mechanical Engineering degree and a background in water meter manufacturing, engineering, and operations, he offers a problem-solving perspective to every project.



Your Turn-Key AMI Partner

DB Utility is a full-service AMI installation contractor specializing in residential and commercial water meter and collector installations. Our proven process integrates seamlessly with leading manufacturers and distributors to ensure on-time delivery, pristine quality, and satisfied utilities.



Our Services

- Water Meter Installations: 5/8"–12", residential & commercial
- Collector Installation & Maintenance: Tower, pole, and rooftop applications
- Turnkey Project Management: Scheduling, data management, QA/QC
- Resident Communication: Call center, SMS & QR-based appointment system
- Software Integration: Billing & WOMS support with live data tracking

Why DB Utility?

- ✓ Trusted Partnerships: Installed for distributors nationwide
- ✓ Scalable Teams: Local crews deployed across 20+ states
- ✓ Reliability: Zero missed deadlines on active projects
- ✓ End-to-End Support: From kickoff through warranty closeout

**Over 50k
meters
installed in
2025**

“

They work hard, communicate, and do what they say they are going to do.

”

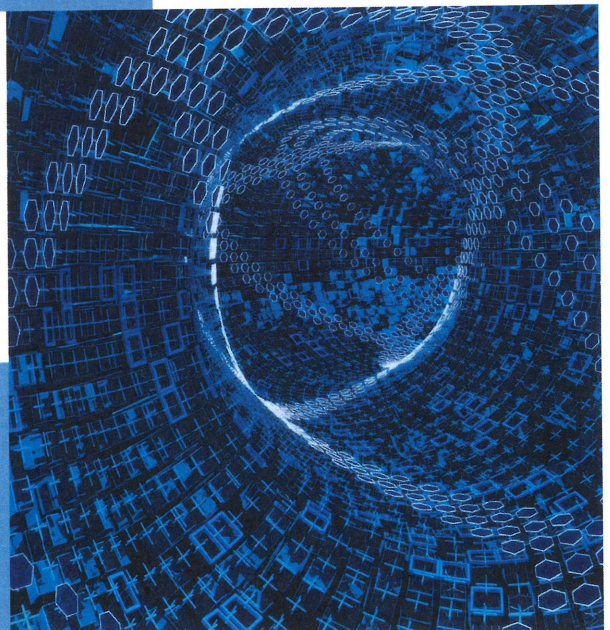
“

Their reliability, timeliness, and consideration for our customers is only part of what makes them a great contractor to partner with.

”

Active Regions

CO, TX, NM, AZ, GA, FL, OR, WA, ID, UT, KS,
NE, SD, ND, OK, MT, LA



KAMSTRUP

PROJECT MANAGEMENT



AMY NEWMAN | **PROJECT MANAGER**

Amy brings over 15 years of project management experience, with a focus on Kamstrup implementations across the U.S. She's led projects from small pilots to systems with 100,000+ endpoints. With expertise in LEAN and Six Sigma, Amy drives efficient operations, training, and support—guiding each customer with industry best practices.



VICTOR GONZALES | **REGIONAL DISTRIBUTION SALES MANAGER**

Victor's role as Regional Sales Manager, oversees business growth and customer support throughout Arizona. Before joining Kamstrup, Victor spent nearly 11 years in distribution sales, developing lasting customer relationships and expanding market share. This combination of field experience and sales leadership gives Victor a strong understanding of customer needs, operational challenges, and long-term project success.

FORTILINE

HELP DESK & SUPPORT



Both Fortiline Waterworks and Kamstrup have their own customer service departments. These departments work together to form a network of personnel that is dedicated to ensuring both the Town and their consumer customers are supported through the life of the project and beyond.

Fortiline Waterworks maintains a Support Center, located in Concord, NC. The support center keeps regular business hours, Monday - Friday, 8am - 5pm EST. Our team of support staff are here to support the Town of Jerome. We are able to resolve 95% of the customer issues we are tasked with. However, in the case that we are unable to find a solution, we will open a support case with Kamstrup that will provide a resolution.

Kamstrup's customer service support is easily accessible via an online support ticketing system housed in their online portal, My Kamstrup. This allows for 24/7 reporting. The Service Desk portion of the My Kamstrup site also allows customers to view the progress of their request and all communication in one place. You also find troubleshooting guides, tutorials, and FAQs located there.

Finally, your local Meter Specialist, Rhonda Duran, and Project Manager, Kevin Shen, will act as your personal Fortiline representatives. Both Rhonda and Kevin are dedicated and driven professionals who will work to ensure that the Town of Jerome's project is completed as smoothly as possible.

**Our solution provides customer
support every step of the way.**

kamstrup

FORTILINE
SMART UTILITY SOLUTIONS



04 | FORTILINE EXPERIENCE & REFERENCES

Incorporated in 1997, Fortiline, Inc. has grown to over 70 locations, serving 23 states, and is the third largest full-service provider to the water, wastewater, utility, and construction industries in the country. Although our company began as a supplier, we have expanded our expertise over the last quarter of a century to include a smart utility solutions department that specializes in water metering. Fortiline Waterworks began selling AMR water metering systems in 2005 and completed our first AMI meter project in 2014.

Throughout the last decade, Fortiline Waterworks has worked to foster relationships with manufacturers at the forefront of the water metering industry, including Kamstrup. We have been a distributor for the Danish company since 2015 and began collaborating with them on AMI projects in 2017. Kamstrup is a global supplier of ultrasonic meters, having made their first in 1991, and are now selling in over 80 countries around the world. The headquarters of their US operations are located in Cumming, GA.

Kamstrup Meters have proven to be highly reliable in the field, with a historic global failure rate of less than 0.5%. Combined with a starting low flow rate of 0.008 gpm and guaranteed new-meter accuracy for the 20-year warranted life of the meter, its easy to see why Kamstrup is the brand of choice for so many utilities.

Moreover, Kamstrup understands that although their meters are designed to capture, record, and transmit detailed data, that information is only helpful if you can analyze it. Their softwares, READy Manager and Leak Detector are simultaneously intelligent enough to process the metering data and straightforward enough that it is easy to use. Powerful data, intelligent software, and easy on-boarding allows Fortiline and Kamstrup to bring Jerome a long-term AMI solution that is accurate and reliable.

Our partnership with Kamstrup has spanned over many projects. In fact, Kamstrup has completed case studies on many of our joint ventures including the Eastern Band of Cherokee Indians, Iredell Water Corporation, Lincolnton, and Milcrofton. You can find these in depth project studies on Kamstrup's US website under the "Insights" section.



FORTILINE

IREDELL WATER CORPORATION, NC

In the rural community of Iredell, the transition from a failing AMR system to Kamstrup's flowIQ meters and AMI system yielded impressive results: increased sales, reduced water loss, and freed-up employee time previously spent on time-consuming drive-by readings.

Meter Type: AMI Water Meters
Sensor Count: 10,200
Services: System Hosting/Product
Services Project Start: 10/2021

Installation: Subcontractor (G2 Utilities, Inc.)
Contact: Danny Sloan
Email: dsloan@iredellwater.com
Phone: (704) 876-0672

DARE COUNTY, NC

Dare County, situated along the coast, posed numerous challenges for implementing metering infrastructure. However, Fortiline's proficient team and the reliable performance of Kamstrup's flowIQ meters and AMI system successfully navigated these obstacles. With over 20,000 installations completed and minimal issues encountered, Dare County now serves as a strong advocate for the effectiveness of Fortiline's service and Kamstrup's AMI system.

Meter Type: AMI Water Meters
Sensor Count: 21,000
Services: System Hosting/Product
Services Project Start: 09/2021
Project End: Ongoing

Installation: Subcontractor (G2 Utilities, Inc.)
Contact: Jessica King
Email: Jessica.King@DareNC.gov
Phone: (252) 475-5990
Address: 600 Mustian St., Kill Devil Hills, NC 27948

CITY OF ORANGE, VA

Orange has seen a successful installation of most residential meters, with the remaining installations scheduled for completion in the near future. The utility has already seen improvements in metering performance, achieving between 98.5% and 100% daily read rates.

Meter Type: AMI Water Meters Sensor Count: 2500
Services: System Hosting/Product Services
Project Start: 04/2025
Project End: Ongoing
Installation: Fortiline Installation

Installation: Fortiline Installation
Contact: Larry Bond, Director of Public Works
Email: l.bond@townoforangeva.gov
Phone: (540) 718-7672
Address: 119 Belleview Ave, Orange, Virginia 22960

STEDMAN, NC

Stedman went from a manual read system to a full AMI deployment with ALD. Within the first week of meters being installed a large leak was found on the utility side and was able to be repaired, saving the town water and lost revenue.

Meter Type: AMI Water Meters with Acoustic Leak Detection software
Sensor Count: 800
Services: System Hosting/Product
Services Project Start: 03/2022
Project End: 12/2022

Installation: Fortiline Installation
Contact: Connie Veederr, Town Clerk/ Finance Officer
Email: townofstedman@gmail.com
Phone: (910) 323-1892
Address: PO Box 220, 5110 Front Street, Stedman, NC 28391

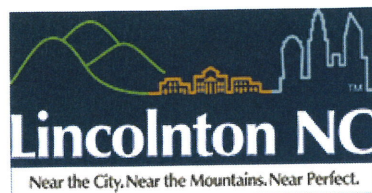
AMI REFERENCES

CUSTOMER CONTACT NAME AND INFORMATION	ADDRESS AND PHONE NUMBER	PROJECT DETAILS
Sumter County, SC Alfred H. Conyers, Jr. aconyers@sumtercountysc.gov	1289 North Main Street Sumter, SC 29153 803-774-3855	Billing Software: Qs1 Project Start: March 2025 Project End: July 2025 Endpoints: 1600
Malone, FL Karen Mercer depclerk@malonefl.net	5182 9th Ave Malone, FL 32445 (850) 569-2308	Billing Software: CreativeTech Project Start: July 2024 Project End: September 2024 Endpoints: 313
Brooker, FL ¹ Charlene Thomas brooker1022@windstream.net	17435 Tetstone Ave Brooker, FL 32622 (352) 485-1022	Billing Software: Jayhawk Software Project Start: March 2025 Project End: April 2025 Endpoints: 212
Iredell Water Corporation, NC Danny Sloan dsloan@iredellwater.com	571 Jennings Rd. Statesville, NC 28625 (704) 876-0672	Billing Software: AS400 Project Start: 10/15/2021 Project End: 5/1/2022 Endpoints: 10,200
Dare County, NC ² William Nash william.nash@darenc.com	600 Mustian St. Kill Devil Hills, NC 27948 (252) 475-5990	Billing Software: Tyler Munis Project Start: 10/1/2018 Project End: 6/1/2023 Endpoints: 24,000
City of Lincolnton, NC David Ramsey, Business Service Manager dramsey@lincolntonnc.org	P.O. Box 617 Lincolnton, NC (704) 736-8980	Billing Software: Tyler Encode Project Start: 6/1/2019 Project End: 7/1/2021 Endpoints: 6,500
Tappahannock, VA Eric Pollitt, Town Manager epollitt@tappahannock-va.gov	915 Church Lane Tappahannock, VA 22560 (804) 443-3336	Billing Software: Edmonds Project Start: 4/4/2022 Project End: 8/17/2023 Endpoints: 1,450
Keysville, VA Sherry Marker townoffice@townofkeysville.com	120 J. Street Keysville, VA 23947 (434) 736-9551	Billing Software: Muni-Link Project Start: 10/21/2020 Project End: Mar 2021 Endpoints: 400
Narrows, VA John Davis, Director of Utilities jdavis@townofnarrows.org	210 Main Street Narrows, VA 24124 (540) 599-3670	Billing Software: Edmonds Project Start: Sep. 2022 Project End: Jan. 2023 Endpoints: 1,200

¹ Brooker carries an AMR system.

² Dare County started their system as an AMR deployment and then migrated to an AMI system.

CUSTOMER CONTACT NAME AND INFORMATION	ADDRESS AND PHONE NUMBER	PROJECT DETAILS
Eastern Band of Cherokee Indians, NC Ethan Arch ethanarch@nc-chokeee.com	1846 Painttown Road Cherokee, NC 28719 (828) 359-6100	Billing Software: Tyler Munis Project Start: 11/1/2019 Project End: 5/1/2021 Endpoints: 2,800
King George, VA Patti Norris-Barker pvanderweert@co.kinggeorge. state.va.us	9207 Kings Highway King George, VA 22485 (540) 775-2746	Billing Software: Muni-Link Project Start: May 2022 Project End: May 2024 Endpoints: 4,000
Lovettsville, VA Stephen Gates, Utilities Director sgates@lovettsvilleva.gov	6 E Pennsylvania Ave. Lovettsville, VA 20180 (540) 822-5788	Billing Software: Harris Flexbill Project Start: 7/1/2019 Project End: 10/1/2019 Endpoints: 970
Maysville, NC Schumata Brown, Town Manager townmanager@bizec.rr.com	404 Main St. Maysville, NC 28555 (910) 743-4441	Billing Software: Utility Billing Project Start: 1/1/2019 Project End: 9/20/2020 Endpoints: 450
Harrisburg, NC Monty L. Jordan mjordan@harrisburgnc.org	4100 Main St. Ste. 101 Harrisburg, NC 28075 (704) 455-0729	Billing Software: Tyler Encode Project Start: 1/1/2019 Project End: 6/1/2022 Endpoints: 6,200
Stanley, NC Craig Roseberry, Public Works Director croseberry@townofstanley.org	416 Hwy 27 S Stanley, NC 28164	Billing Software: Harris Project Start: 3/10/2022 Project End: 10/20/2022 Endpoints: 2,400



To whom it may concern:

I am delighted to share my experience with Kamstrup AMI water meters and Fortiline as our trusted supplier during our transition to an AMI (Advanced Metering Infrastructure) system. This journey has been truly transformative for our water utility, and I cannot emphasize enough the significant benefits we've reaped from this partnership.

First and foremost, Kamstrup's AMI water meters have revolutionized the way we manage our water distribution system. The accuracy and real-time data they provide have been nothing short of exceptional. Our ability to monitor water consumption, detect leaks, and identify irregularities in our network has greatly improved. This level of insight has allowed us to optimize our operations, reduce water losses, and ultimately save both resources and costs. We immediately realized a reduction in our Non-Revenue Water. Before the implementation of the project we typically had a 25% loss on water produced and water billed. After implementation our water loss was reduced to less than 10%. In addition, our sewer revenue is based off of water usage so we not only realized an increase in water revenue but also sewer revenue. When Kamstrup says the meters read almost every drop – they truly do. We have reduced the number of "truck rolls" significantly which is another large reduction in costs. The ability to see a leak in the office and notifying the customer knowing that it is their leak is invaluable and allows our crews to focus efforts elsewhere.

Fortiline's role as our supplier has been equally impressive. Their dedication to providing high-quality equipment and their commitment to our project's success has been commendable. Their team's expertise and guidance throughout the entire process made the transition to an AMI system seamless. From product selection to installation and ongoing support, Fortiline's professionalism has been a cornerstone of our success.

One of the key highlights of this transition has been the ease of integration. Kamstrup's AMI system seamlessly integrated with our existing infrastructure, minimizing downtime and disruptions. The transition was remarkably smooth, thanks to the meticulous planning and execution by both Kamstrup and Fortiline. This ensured that our customers experienced minimal inconvenience during the upgrade process.

From an operational standpoint, AMI water meters have demonstrated exceptional performance and reliability. The meters have proven to be durable, with minimal maintenance required. Our failure rates have dropped significantly, resulting in substantial cost savings and improved operational efficiency. This reliability has allowed us to focus more on proactive measures to optimize our water distribution system.

The benefits of switching to an AMI system have extended beyond operational improvements. We've seen enhanced customer satisfaction as well. With the ability to provide our customers with accurate and timely data on their water usage, we've empowered them to make informed decisions about their consumption. This transparency has fostered trust and improved communication between our utility company and our customers.

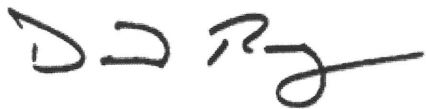
Additionally, the remote reading capabilities of Kamstrup's AMI system have streamlined our billing processes, reducing the margin for human error and increasing the efficiency of our administrative tasks. This has resulted in cost savings and allowed us to allocate resources more effectively.

In conclusion, our partnership with Kamstrup and Fortiline in transitioning to an AMI system has been nothing short of transformative. The benefits in terms of operational efficiency, cost savings, improved customer relations, and environmental impact have been substantial. I wholeheartedly endorse Kamstrup's AMI water meters and Fortiline as a supplier to any water utility company looking to enhance its operations and provide better services to its customers.

This partnership has proven to be an invaluable asset to our organization, and we look forward to continued success in the years to come.

Should you have any questions or need additional information please give me a call.

Regards,

A handwritten signature in black ink, appearing to read 'D Ramsey', with a stylized flourish at the end.

David Ramsey
Business Services Director
City of Lincoln
dramsey@lincolntonnc.org
704-736-8980



County of Dare

P.O. Box 1000 | Manteo, North Carolina 27954 | 252.475.5000

September 13, 2023

To Whom it May Concern:

In 2019 Dare County Utilities began looking to upgrade their meters to an automated meter system. Multiple companies presented their product and we acquired a meter from each of those companies for testing. In Dare County we have shifting sand dunes and low water tables so the reliability of the product and its ability to read in harsh conditions was a must. To test the meters, we placed them in a five-gallon bucket of water and buried them in the deepest sand dune we could find, then we left them there. During the next few weeks, we would drive by the area where we buried the meters to see which ones still read. At the end of the trial, we had the most success out of the Kamstrup meter.

Since 2019 we have implemented a 4-year program to purchase and install 25,000 meters in our system. In the past four years we have only had six failures:

- » two were frozen from the customer leaving the meter lid off
- » one customer tried to pry the meter top off to see what was inside
- » three had screen failures but the meter was still recording, and we were able to pull data (Fortiline immediately replaced these no questions asked)

Fortiline has been very good to work with, their staff is fast and responsive, and they listen. More than once we have sat down with their engineering teams to discuss if there were any improvements we would like to see. Their team listened and made improvements on the first design making the meter that much better. I cannot say enough about Fortiline's install crew and their professionalism and customer relations. If there was an issue or complaint, they fixed it often going above and beyond to make the customer happy and to take the pressure off the utility.

Operationally we have seen a decrease in unaccounted for water. Prior to 2019 unaccounted for water was around 17%, when last totaled we are now around 8%

Land of Beginnings

unaccounted for water. What we have been able to contribute this to is customer side leaks that the old mechanical meters were not picking up. The Kamstrup ability to read to .02 gpm catches everything, even with the larger meters. The downside to all of this is customers are going to push back because they "never had a problem prior to the new meter", it has been an uphill battle getting people to see the benefits of these meters. Once you learn how to accurately read the data you will be able to impress your customer with your knowledge of their water usage. If they don't believe you just start telling them about their bathroom habits, they start to listen real quick.

As far as finances go I don't have a concrete or specific number to share, there are so many variables I have never taken the time to do the math. Customers are wasting less water by fixing leaks they were unaware of so there is a decrease in sales. However that is offset by lower production cost, less chemicals, less energy, less wear and tear on equipment. The big thing for me has been the increase in our ability to help the customer and gaining a better public image. When we show up to a home now we are not the bad guy that says sorry it went through the meter you have to pay for it, and no I can't tell you when it happened. Now we can say it happened at this date and time, when you have the ability to show this it dings a person's memory to an event that occurred. We have heard it all:

- » The bulkhead guy cut my water line that day
- » That's when the pool guy was out, he forgot to take the hose out of the pool
- » Oh, that's the weekend I started my irrigation system and the list goes on and on.

Kamstrup makes a solid product that Dare Utilities has been very happy with. I can get long winded so let me just say that if you have any questions please feel free to give me a call I will be more than happy to answer them. 252-475-5606

William Nash
Public Utilities Director
Dare County Water Department

Land of Beginnings

05 | FORTILINE APPENDIX

- A Bid Forms
- B Pricing
- C Vendor Technical Documents
- D Propagation Study
- E Authority to do Business
- F Special Conditions, Disclaimers, and Exceptions
- G Warranties

A | Bid Forms

Town of Jerome

Proposal Document A – Proposal

To: Honorable Mayor & Council
600 Clark St.
Jerome, AZ 86331

In compliance with the Town of Jerome's Request for Proposals for an Advanced Metering Infrastructure System and the Notice to Respondents by the Town Manager, the undersigned respondent:

Having carefully examined the proposal documents and being familiar with the conditions to be met, hereby submits the following proposal for furnishing the material, equipment, labor and everything necessary for the completion of the work listed and agrees to execute contract documents and furnish the required Bonds and Certificates of Insurance for the completion of said work, at the locations and for the prices set forth on the Fee Proposal.

Understands that procurement of this project shall be in accordance with all applicable Standard Specifications and as otherwise required by the General Provisions and Special Provisions.

Understands that this proposal shall be submitted with a proposal guarantee of cash, certified check, cashier's check, or surety bond (in accordance with Title 34, A.R.S.) for an amount not less than ten percent of the total amount proposal.

Agrees that upon receipt of Notice of Award from the Town of Jerome, they will enter into contract negotiations and execute the contract documents.

Work shall commence no later than 30 days, after the Notice to Proceed and shall be completed within 180 calendar days, beginning with the day following the starting date specified in the Notice to Proceed. The time allowed for completing the work includes lead time for obtaining the necessary materials and/or equipment. Respondent agrees to pay, as liquidated damages, two times the sum as stated in the latest revision of the MAG Specifications. Liquidated Damages shall be based upon the final contract amount.

The respondent hereby acknowledges receipt of and agrees that this proposal is based on the following Addenda (if there are no addenda, write NONE below).

None

TOWN OF JEROME, ARIZONA | Advanced Metering Infrastructure System

The Town of Jerome retains the right to reject any or all proposals and to waive minor defects and technicalities or withhold the award, as may be deemed best for the interest of the Town.

This proposal shall be valid for a period of 30 days after the proposal deadline.

THIS PROPOSAL is submitted by Fortiline, Inc d/b/a Fortiline Waterworks,
a corporation organized under the laws of the State of South Carolina (Foreign Authority - Arizona),
~~Arizona, a partnership consisting of~~
_____, or an individual trading as _____ of the
City of Prescott, and holder of Arizona State Contractor's License(s):

Classification(s) CR-37

No.(s) ROC 344938

Respectfully Submitted,

Fortiline, Inc d/b/a Fortiline Waterworks
Respondent

15850 Dallas Parkway, Dallas, TX 75248

Address:

Andy Iversen
Asst Secretary

By (Officer & Title)

11/3/25

Date

ATTEST:

Gary Hibbs VP-Treasurer
(Officer and Title)

Witness (if respondent is an individual)

Town of Jerome

Proposal Document B – Fee Proposal

Respondent Fortiline, Inc d/b/a Fortiline Waterworks
Mailing Address 6400 Lear Ln
City Prescott State Arizona Zip 86301
Telephone (602) 245-8060

PURSUANT to, and in compliance with, the Town of Jerome's Request for Proposals for an Advanced Metering Infrastructure System, the Notice to Respondents, Instructions to Respondents, and the Proposal Documents relating to the:

TOWN OF JEROME ADVANCED METERING INFRASTRUCTURE SYSTEM

This is to certify that the above documents, as well as the site upon which work is to be performed and any and all conditions affecting the work, have been carefully examined, that the amount and nature of work to be accomplished is thoroughly understood and that at no time will misunderstanding of the drawings, specifications or conditions to be overcome be alleged or pled as a basis for change orders, damages or non-performances.

I (We) acknowledge that the following Fee Proposal and table are for the convenience of the Town of Jerome to analyze the individual components of the proposal and to provide a means for partial payments during the project. The sum of the extended unit prices shall be the final price for the product procurement in accordance with the technical specifications. The total price listed on the Fee Proposal shall be the same as listed on the proposal to the Town of Jerome.

FEE PROPOSAL INSTRUCTIONS:

1. All items will be paid for as lump sums. The Fee Proposal's estimated quantity and unit price will be used as a means of computing progress payments and as a basis for any Change Orders incurred.
2. The owner reserves the right to recalculate the following Fee Proposal if they appear malapportioned.
3. The lump sum amounts indicated below are to include the respondent's cost of administration, mobilization, bonds, insurance, and any other miscellaneous items required for the project.

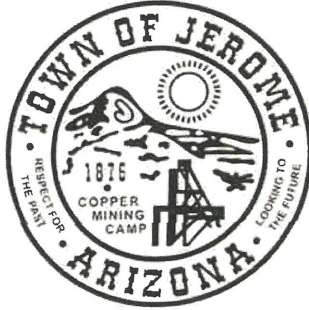
FEE PROPOSAL Town of Jerome Advanced Metering Infrastructure System					
		Est. Qty.	Units	Unit Price	Total Price
CIVIL BASE PROPOSAL					
1	¾ x 5/8" AMI Meter	299		\$446.82	\$133,599.20
2	1" threaded AMI Meter	17		\$522.25	\$8,878.25
3	1 ½" flanged AMI Meter	13		\$1,476.45	\$19,193.86
4	2" AMI Meter	2		\$1,723.36	\$3,446.73
5	4" AMI Meter	1		\$3,108.88	\$3,108.88
6	AMI System Software	1		\$14,758.75	\$14,758.75
7	AMI System Training	1		\$18,642.92	\$18,642.92
8	AMI Data Collection Hardware/Software	1		\$31,802.18	\$31,802.18
9	FCC Registration	1		Included	Included
SUBTOTAL COSTS – BASE PROPOSAL				\$72,481.61	\$233,430.76
GRAND TOTAL, BASE PROPOSAL			*Does not include customer portal pricing which has been provided in a separate quote.		\$233,430.76*

GRAND TOTAL – BASE PROPOSAL (in words): _____

Two hundred thirty-three thousand, four hundred and thirty dollars, seventy-six cents

NOTE: All Quantities Shown are approximate and are furnished solely for the contractor's convenience. The quantities provided will be the lump sum that payment will be made on. The individual items are for use by the Town to analyze proposals, use as a basis for any supplemental agreements, and for partial progress payments.

Proposal Document C – Non-Collusion Certificate



ADVANCED METERING INFRASTRUCTURE SYSTEM

Respondent: Fortiline, Inc d/b/a Fortiline Waterworks

The undersigned respondent hereby certifies as follows:

To the best of his/her knowledge, the person, vendor, association, partnership, or corporation herein has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive pricing in the preparation and submission of a proposal to the Town of Jerome for consideration in the award of this solicitation.

Dated this 3rd day of November 2025.

Signature

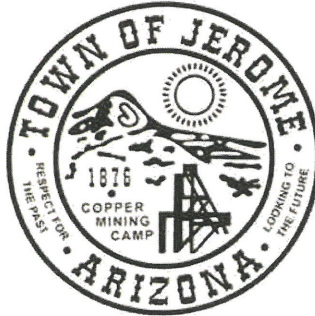
Andy Iverson, Asst. Secretary
Written Name

469-203-5815

Phone Number

andrew.iverson@reece.com
Email Address

Proposal Document D – Certificate of Ownership



ADVANCED METERING INFRASTRUCTURE SYSTEM

Respondent: Fortiline, Inc d/b/a Fortiline Waterworks

The undersigned respondent hereby certifies as follows:

To the best of his/her knowledge, the person, vendor, association, partnership, or corporation herein, are the only person, vendors, corporations, partnerships, or other associations having any direct or indirect financial interest in the respondent's business as legal or equitable owner, creditor (except current bills for operating expenses), or holder of any security or other evidence of indebtedness.

Dated this 30th day of November 2025.


Signature

Andy Iverson, Asst. Secretary
Written Name

469-203-5815
Phone Number

andy.iverson@reece.com
Email Address

Proposal Document E – Respondent Qualifications, Representations, and Warranties




ADVANCED METERING INFRASTRUCTURE SYSTEM

Respondent: Fortiline, Inc d/b/a Fortiline Waterworks

The undersigned respondent hereby certifies as follows:

- X1 Taxes and Leins – Respondent has no unsatisfied tax or judgment lien on record.
- X2 Respondent's Examination – Respondent has made its own examination, investigation, and research regarding the requirements of the solicitation, including but not limited to the work to be done, services to be performed, any conditions affecting the work and services, the type and quantity of labor, equipment, and facilities necessary to perform. Respondent fully understands the character of the work and services, the manner in which payment is to be made, and the terms and conditions of the solicitation. Respondent acknowledges and agrees that it has satisfied itself by its own examination, investigation, and research, and that it will make no claim against the Town because of erroneous estimates, statements, or interpretations made by the Town. Respondent hereby proposes to furnish all materials, equipment, and facilities and to perform all labor which may be required to do the work within the time required and upon the terms and conditions provided in the solicitation, and at the prices as proposed.

Dated this 3rd day of November 2025.


Signature

Andy Iverson, Asst Secretary
Written Name

469-203-5815
Phone Number

andrew.iverson@reece.com
Email Address

B | Pricing



CUSTOMER NO	QUOTING BRANCH	QUOTE NO	QUOTE DATE	PAGE
220247	FORTILINE PEORIA	6743874	10/24/25	1

CUSTOMER	PROJECT INFORMATION
ALL BIDDERS PEORIA 8051 W. OLIVE AVE. PEORIA, AZ 85345	TOWN OF JEROME

LINE	QTY	UOM	DESCRIPTION	UNIT PRICE	TOTAL PRICE
***** IF, AFTER THE DATE OF THIS QUOTE, ANY NEW OR INCREASED TARIFFS, DUTIES OR OTHER GOVERNMENT-IMPOSED COSTS ON MATERIALS USED IN THE WORK BECOMES EFFECTIVE, THE CONTRACT PRICE SHALL BE ADJUSTED TO REFLECT THE ACTUAL INCREASED COST TO FORTILINE. FORTILINE SHALL PROMPTLY NOTIFY THE CUSTOMER OF ANY SUCH COST IMPACT. FAILURE OF FORTILINE AND THE CUSTOMER TO AGREE ON ANY PRICE ADJUSTMENT SHALL NOT RELIEVE THE CUSTOMER'S OBLIGATION TO PAY THE INCREASED COST. *****					
METERS AND HARDWARE					
30	299	EA	5/8X3/4 FLOWIQ 2200 MTR COMP	319.1100	95,413.89
40	6	PKG	3/4" METER GASKET 1/8" 100/PK	9.8500	59.10
50	299	EA	3/4" METER INSTALL CHARGE	100.0000	29,900.00
70	17	EA	1" FLOWIQ 2200 METER SS FLG	388.0000	6,596.00
80	1	PKG	10" LL	12.9600	12.96
90	1	EA	1" METER GASKET 1/8" 100/PK	22.6200	22.62
100	17	EA	1"X2-5/8 MTR CPLG NL	100.0000	1,700.00
120	13	EA	1" METER INSTALL CHARGE		
130	26	EA	1-1/2 FLOWIQ 3200 METER SS FLG	1,132.6400	14,724.32
160	13	EA	13" LL	13.9500	362.70
		EA	1-1/2" METER BOLT & GASKET SET	225.0000	2,925.00
180	2	EA	1-1/2" METER INSTALL CHARGE		
190	4	EA	2" FLOWIQ 3200 METER SS FLG	1,256.3500	2,512.70
220	2	EA	17" LL	17.9500	71.80
230	1	EA	2" METER BOLT & GASKET SET	325.0000	650.00
		EA	2" METER INSTALL CHARGE	2,482.0500	2,482.05
240	2	EA	4" FLOWIQ 3200 METER SS FLG		
250	2	EA	14" LL	14.0400	28.08
		EA	4" FLG BOLT KIT HDG A307B	3.6600	7.32
		EA	4" FLG GSKT 1/8" FF RR		

ALL STOCK DELIVERIES ARE SUBJECT TO SHIPPING CHARGES

All PVC and HDPE material is quoted for shipment within 7 days of quote/bid date. All other material is quoted for shipment within 30 days of quote/bid date.
After 7 days for PVC and HDPE or 30 days for all other material, ALL quoted prices are subject to review based on current market conditions.

CUSTOMER NO	JOB NAME	QUOTE NO	QUOTE DATE	PAGE
220247	TOWN OF JEROME	6743874	10/24/25	2

LINE	QTY	UOM	DESCRIPTION	UNIT PRICE	TOTAL PRICE
260	1	EA	4" METER INSTALL CHARGE	400.0000	400.00
			Package Sub-total:		157,868.54
300	1	EA	AMI SYSTEM HARDWARE READY CONVERTER US ADVANCED 669640020-	2,250.0000	2,250.00
			*INCLUDES TWO CONVERTERS, CAR ANTENNA PLUS CHARGERS		
340	1	EA	KAMSTRUP AMI RF COLLECTOR SET	15,000.0000	15,000.00
350	1	EA	COLLECTOR INSTALL CHARGE	6,000.0000	6,000.00
360	120	EA	EXTERNAL ANTENNA F/PIT MOUNT 24.6' CABLE 66-97-915	54.9500	6,594.00
			Package Sub-total:		29,844.00
			AMI SYSTEM SOFTWARE		
430	1	EA	FORTILINE MTR PRJCT MANAGEMENT INCLUDES TRAINING AND BILLING INTERFACE	6,500.0000	6,500.00
450	1	EA	DO IT YOURSELF <1500 KAMSTRUP PROJECT MANAGEMENT 692YS00000	10,995.0000	10,995.00
470	1	EA	READY AMI MANAGER SOFTWARE	2,450.0000	2,450.00
480	1	EA	251-800 METERING POINTS LEAK UP AND RUNNING	1,600.0000	1,600.00
500	1	EA	AMI HOSTING UP TO 800 PTS	6,450.0000	6,450.00
510	1	EA	LEAK DETECTOR SOFTWARE 250-800	3,350.0000	3,350.00
			Package Sub-total:		31,345.00
			UTILITY PROVIDES ASSET FOR COLLECTOR MOUNTING AND SIM CARD OR ETHERNET CONNECTION FOR BACKHAUL.		
			PLASTIC LIDS RECOMMENDED FOR BEST PERFORMANCE. EXTERNAL ANTENNAE (ADDITIONAL COST) MAY ALSO BE UTILIZED.		
			LARGER METERS MAY REQUIRE EXTRA PARTS AT ADDITIONAL EXPENSE TO ADJUST LAY LENGTH TO MATCH NEW METERS.		

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CUSTOMER NO	QUOTING BRANCH	QUOTE NO	QUOTE DATE	PAGE
220247	FORTILINE PEORIA	6748672	11/03/25	1

CUSTOMER	PROJECT INFORMATION
ALL BIDDERS PEORIA 8051 W. OLIVE AVE. PEORIA, AZ 85345	TOWN OF JEROME

LINE	QTY	UOM	DESCRIPTION	UNIT PRICE	TOTAL PRICE
			***** IF, AFTER THE DATE OF THIS QUOTE, ANY NEW OR INCREASED TARIFFS, DUTIES OR OTHER GOVERNMENT-IMPOSED COSTS ON MATERIALS USED IN THE WORK BECOMES EFFECTIVE, THE CONTRACT PRICE SHALL BE ADJUSTED TO REFLECT THE ACTUAL INCREASED COST TO FORTILINE. FORTILINE SHALL PROMPTLY NOTIFY THE CUSTOMER OF ANY SUCH COST IMPACT. FAILURE OF FORTILINE AND THE CUSTOMER TO AGREE ON ANY PRICE ADJUSTMENT SHALL NOT RELIEVE THE CUSTOMER'S OBLIGATION TO PAY THE INCREASED COST. *****		
90	1	EA	H2 ANALYTICS CUSTOMER PORTAL PRICING - TOWN OF JEROME UP TO 350 METERS ONE TIME FEE CUSTOMER PORTAL	5,000.0000	5,000.00
160	1	EA	PRICE INCLUDES HOURLY DATA ANALYTICS, CUSTOMER PORTAL, SINGLE SIGN ON (SSO) AND STD IMPLEMENTATION CONSULTING ANNUAL RECURRING FEES ANNUAL HOSTING/SUPPORT FEE	3,500.0000	3,500.00
220	1	EA	MONTHLY RECURRING FEES MONTHLY VOIP FEES - PER PHONE SMS MESSAGE FIRST 2000 PER MONTH	.1800	.18
230	1	EA	NEXT 2000 PER MONTH	.1500	.15
240	1	EA	ADDITIONAL PER MONTH	.1200	.12

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After 7 days for PVC and HDPE or 30 days for all other material, ALL quoted prices are subject to review based on current market conditions.

C | Vendor Technical Documents

Data sheet

flowIQ® 2200

- » RF
- » Encoded

- Multiple radio options available
- Ultrasonic measurement
- Sustainable measurement accuracy
- Temperature measurement
- IP68 Vacuum sealed construction
- Lead free and certified to NSF/ANSI 61
- Flow measurement in display
- Acoustic leak detection in service and distribution lines



Contents

Technical data	4
Material	5
Meter sizes	5
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Meter modes	7
Display and info codes	8
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Integrated communication	10
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Pressure loss	11
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Configuration - flowIQ® 2200	13
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Dimensions	17
Accessories	17

Electronic ultrasonic cold-water meter for measurement of cold-water consumption in households, multi-unit buildings and industry

Sustainable accuracy

Ultrasonic flow measurement guarantees sustainable accuracy and longevity. Ultrasonic flow measurement is based on the transit time method, and all measurements, references, readings, calculations and data communication are controlled by an advanced, specially designed electronic circuit. Thus, the meter includes no moving parts, which makes flowIQ® 2200 less sensitive to wear and tear and impurities in the water.

Construction

The meter is hermetically closed and vacuum-sealed to prevent humidity from reaching the electronics and avoid condensation between the glass and display. The meter is IP68 (submersible) type tested and suitable for installation in meter pits.

Installation

flowIQ® 2200 is easy to install in all operating environments, horizontally as well as vertically, independent of piping and installation conditions. Consumption data can be read visually from the display, using an optical eye, and remotely read by various integrated communication protocols.

Specific features

flowIQ® 2200 measures the water and environment temperatures and it includes acoustic leak detection, securing that water loss is discovered quickly.

The unique combination of all the flowIQ® 2200 features reduce current operating costs to measure water usage and minimizes unexpected expenses in connection with possible leakage.

Environmentally friendly

The meter has been approved according to Drinking Water Standards and is certified to NSF/ANSI 61. The meter housing and measuring part are made of the high-performance thermoplastic material polyphenylene sulfide (PPS) with 40% fiberglass, which is free from lead and other heavy metals. The environmental report, Carbon Footprint, documents the meter's high reusability and low environmental impact, including recycling of materials.

Hygiene

To protect the health of the consumers Kamstrup has a hygienic manufacturing process of the water meters.

Kamstrup also has a highly automated manufacturing process and only uses materials approved for drinking water. Furthermore, the products get disinfected before dispatch. The hygiene is being controlled by external accredited laboratories and by frequent audits.

General description

flowIQ® 2200 is a hermetically sealed water meter intended for measurement of cold and *reclaimed water consumption in residential and multi-unit buildings.

flowIQ® 2200 employs the ultrasonic measurement principle, based on Kamstrup's experience since 1991, with the initial development and production of static ultrasonic meters.

flowIQ® 2200 is available in an Encoded Output version with 2 x A-cell battery supply and a RF version with 1 x D-cell battery supply.

One of flowIQ® 2200's many advantages is the fact that it has no wearing parts, which ensures a high and stable accuracy throughout its lifetime. flowIQ® 2200 complies with all the AWWA C715-18 guideline for Ultrasonic Water Meters.

flowIQ® 2200 measures the water consumption electronically, as a volume, using a pair of ultrasonic signals. Through two ultrasonic transducers, an ultrasonic signal is sent with and against the flow direction. A transducer serves both as a 'speaker' when transmitting and as a 'microphone' when a signal is received. The ultrasonic signal traveling with the flow will be the first to reach the opposite transducer, while the signal running against the flow will be received a little later.

The time difference between the two signals can be converted into flow velocity, and thereby also into a volume. The measuring principle is a proven, long-term stable and accurate measuring principle.

In addition to volume reading, an indication of current flow and several other information codes are displayed. All registers are saved daily in the meter data logger (EEPROM) and are kept for 460 days. Furthermore, monthly data for the latest 36 months (3 years), hourly data for the latest 100 days (about 3 and a half months) and 50 info code events are saved.

flowIQ® 2200 is powered by an internal lithium battery which can provide up to 20 years operating life.

flowIQ® 2200 is available with a choice of integrated data communication options:

- 912.5, 915 or 918.5 MHz - RF
- 450-470 MHz - RF
- Encoded Output

The meter is fitted with an optical eye which makes it possible to read saved consumption data and info codes, stored in the meter's data logger. Using an optical reading head, it is also possible to change the meter configuration, e.g. data packages.

flowIQ® 2200 can and must only be opened by Kamstrup A/S. If the meter has been opened and the sealing has been broken, the meter is no longer valid for billing purposes and the warranty is void.

* For information concerning reclaimed water we refer to document no.: FILE100003532

Technical data

Electrical data

Battery (flowIQ® 2200 RF)

1 x D-Cell battery, 3.6V, 19Ah. The battery warranty does not apply at meter temperatures above $t_{BAT} > 95^{\circ}\text{F} / 35^{\circ}\text{C}$

Battery (flowIQ® 2200 E0)

2 x A-Cell battery, 3.6V, 3.6Ah. The battery warranty does not apply at meter temperatures above $t_{BAT} > 95^{\circ}\text{F} / 35^{\circ}\text{C}$

Mechanical data

Protection class

IP68-rated (waterproof/submersible)

Mechanical environment

Class M1 (Measuring Instruments Directive classification)

Ambient/meter temperature

- flowIQ® 2200, composite

35... 130 °F / 1.5... 55 °C

- flowIQ® 2200, metal

35... 130 °F / 1.5... 55 °C

Water temperature

- flowIQ® 2200, composite

33... 120 °F / 0.5... 50 °C

- flowIQ® 2200, metal

33... 120 °F / 0.5... 50 °C

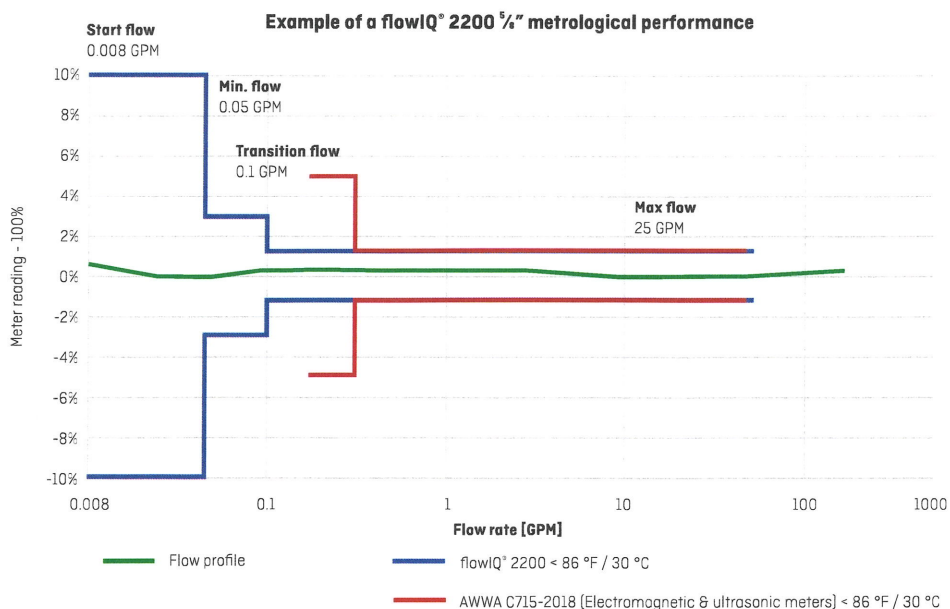
Storage temp. empty sensor

-10... 140 °F / -20... 60 °C

Maximum operating pressure

250 PSI (17 bar)

Accuracy



The above flow profile is an example of a flowIQ® 2200 5/8" metrological performance and does not represent a generic profile for all Kamstrup water meters. Each meter will have an unique flow profile however all within both Kamstrup and AWWA C715-2018 limitations.

Note: At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow.

Approved meter data

Certified to NSF/ANSI 61

Complies to part 15 of the FCC rules, ISED, IFT and with AWWA C715-18

Material

Wetted parts (composite model)

Meter housing and flow part Polyphenylene sulfide (PPS) with fiberglass [40 %] reinforcement, PSU, extenders made from PA12
 Reflectors Stainless steel 316

Wetted parts (2-part body)

Flow part, threaded Stainless Steel 316L
 O-ring/gasket EPDM
 Measuring tube PPS with fiberglass
 Reflectors Stainless steel

External meter parts

Top ring (sealing) Polycarbonate (gray)

Meter sizes

flowIQ® 2200 is available in the sizes shown in table below:

XX = Communication module Y = Battery supply ZZ = Country code

Type number	Meter size	Start flow ¹⁾ [S]	Min. flow ¹⁾	Transition flow	Max flow	Sat. flow rate	Pressure loss SMOC	Connection on meter	Lay length	Strainer	Temp. measurement of water
	Inches	[GPM]/ [L/h]	[GPM]/ [L/h]	[GPM]/ [L/h]	[GPM]/ [m³/h]	[GPM]/ [m³/h]	[PSI]/ [bar]	NPSM thread	[Inches]/ [mm]		
02-K-XX-Y-1-8A-8ZZ	½" x ½"	0.008/ 2	0.05/ 11.4	0.1/ 22.7	25/ 5.68	35/ 7.95	6.2/ 0.43	¾"	7½"/ 190	Yes	Yes
02-K-XX-Y-1-8B-8ZZ	½" x ¾"	0.008/ 2	0.05/ 11.4	0.1/ 22.7	25/ 5.68	35/ 7.95	7.7/ 0.53	1"	7½"/ 190	Yes	Yes
02-K-XX-Y-1-8R-8ZZ	½" x ¾"	0.008/ 2	0.05/ 11.4	0.1/ 22.7	25/ 5.68	35/ 7.95	7.7/ 0.53	1"	5.1"/ 130	Yes	Yes
02-K-XX-Y-1-8C-8ZZ	¾"	0.011/ 2.5	0.05/ 11.4	0.1/ 22.7	32/ 7.27	45/ 10.22	9.0/ 0.62	1"	7½" or 9"/ 229	Yes	Yes
02-L-XX-Y-1-8B-8ZZ	½" x ¾"	0.013/ 3	0.10/ 22.8	0.15/ 34.1	25/ 5.68	35/ 7.95	3.8/ 0.26	1"	7½"/ 190	No	Yes
02-L-XX-Y-1-8N-8ZZ	¾"	0.013/ 3	0.10/ 22.8	0.15/ 34.1	35/ 7.95	49/ 11.13	3.9/ 0.27	1"	7½"/ 190	No	Yes
02-L-XX-Y-1-8L-8ZZ	¾"	0.013/ 3	0.10/ 22.8	0.15/ 34.1	35/ 7.95	49/ 11.13	3.9/ 0.27	1"	9"/ 229	No	Yes
02-L-XX-Y-1-8D-8ZZ	1"	0.022/ 5	0.25/ 56.8	0.4/ 90.8	55/ 12.49	77/ 17.49	3.1/ 0.21	1½"	10½"/ 273	No	Yes

Note! 02-K-02-D-1-8C-8UB can be ordered with a 1½" extension and washer (installed by the customer) to fit 7½" or 9" lay lengths

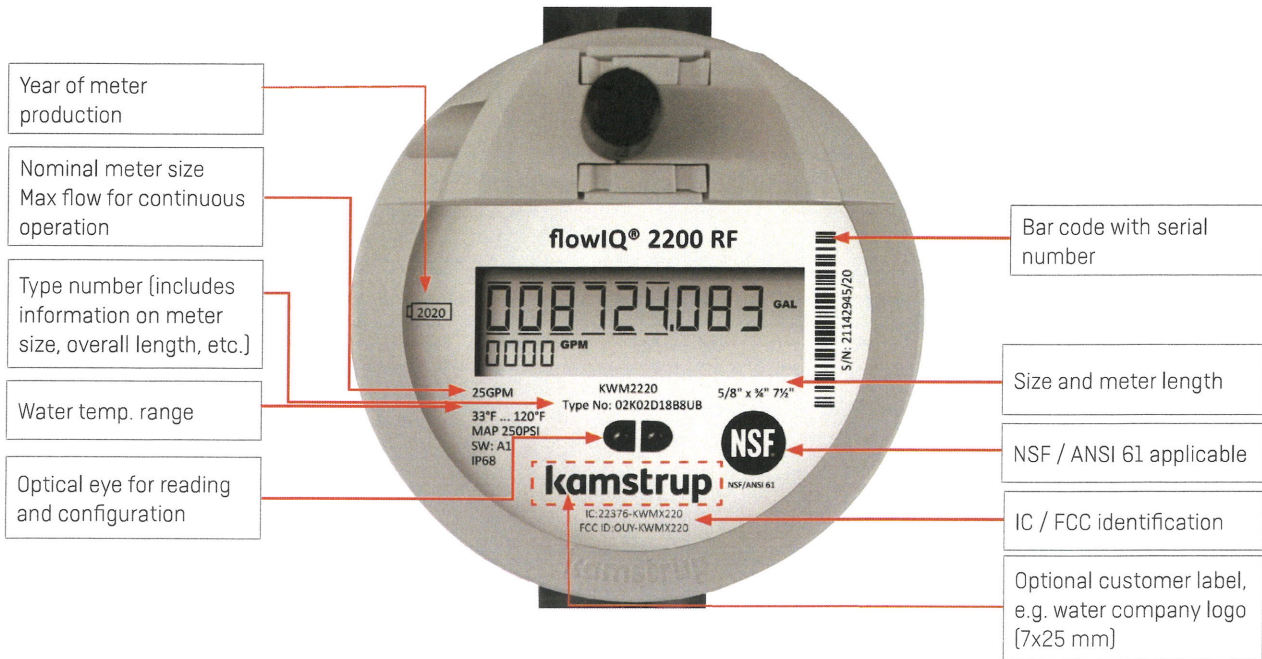
Note! Flow specifications only apply at temperatures below 86 °F / 30 °C

¹⁾ At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow

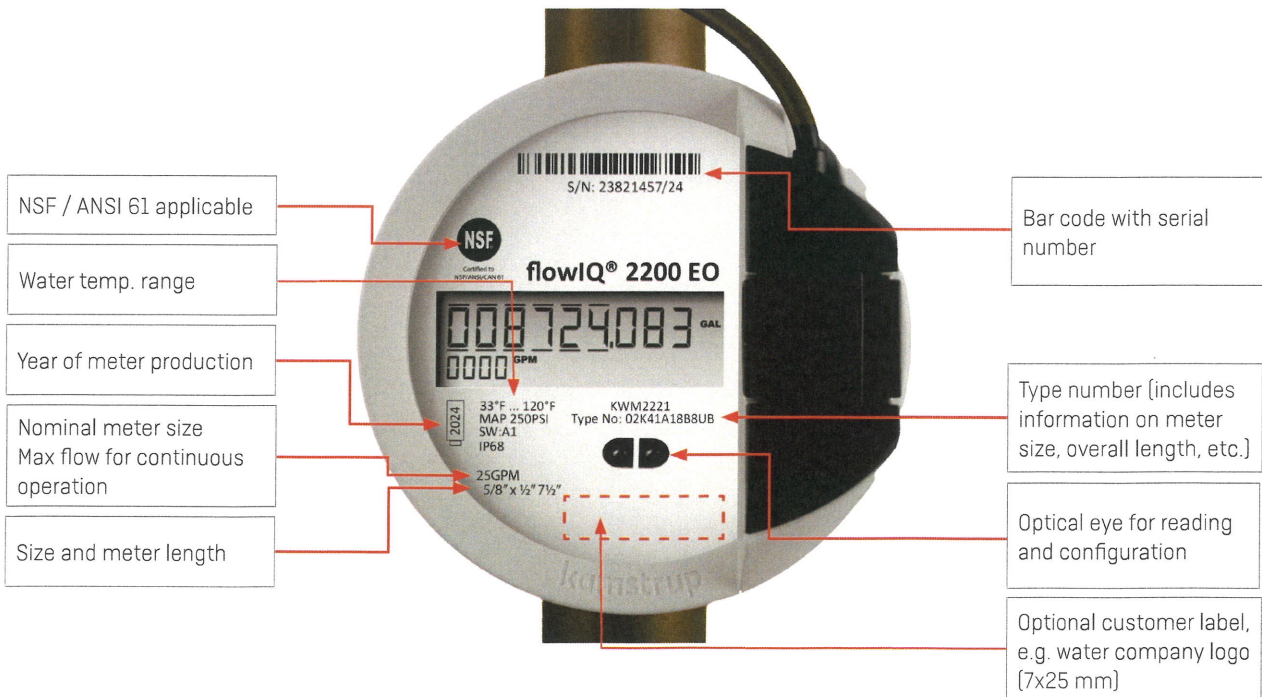
Meter face details

Meter information in permanent laser engraved text

RF label



Encoded top label



Core features

Water meters placed throughout the network make it possible to gather information that can be of vital importance for an effective water supply, asset management and improved customer service.

Acoustic leakage detection

flowIQ® 2200 water meter introduces integrated acoustic leak detection that allows you to monitor your service connections for possible leaks. Like a fine-meshed network of noise-loggers, all your meters monitor the noise in the distribution lines and service connections to detect possible leaks – 24/7.

Temperature monitoring

flowIQ® 2200 measures water and ambient temperatures respectively. Information on temperatures above or below the configured temperature in the meter will warn the utility of potential frost damage or quality issues. These measurements can be used to monitor the installation and will indicate the water's quality.

Current flow display

Besides the consumed volume, flowIQ® 2200 also shows the current flow in the display. The flow display has been designed with user experience in mind, where it can be advantageous, for example during installation, to be able to see the current consumption. In this context, it is important to stress that the metrological approval of the water meter is related to the volume reading only. Due to the meter's update time, the flow display, in case of rapidly increasing/decreasing flow, may turn out to be slower than the real flow and not a one-to-one correlation between the flow display and the volume growth. In general, one would expect the flow display to stabilize after about half a minute of constant flow and thereafter to be consistent with volume growth.

Consumption above max flow

The meter logs information on consumption above max flow. This information can be used to indicate if the meter size for a given installation is correct.

Consumption histogram

The meter tracks consumptions in different flow intervals for further analysis of the consumption patterns for the specific installation.

Meter modes

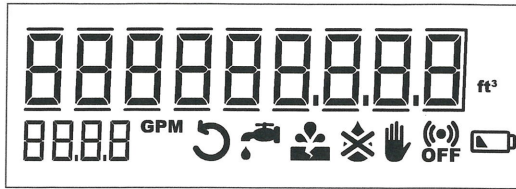
flowIQ® 2200 can operate in two modes, Normal and Verification mode.

Verification mode is only used by authorized laboratories during verification.

flowIQ® 2200 RF	Normal mode	Verification mode
Flow measurement and flow display update	1 s	0.125 s
Volume integration and volume display update	8 s	1 s

flowIQ® 2200 E0	Normal mode	Verification mode
Flow measurement and flow display update	2 s	0.125 s
Volume integration and volume display update	16 s	1 s

Display and info codes



The large display with totalized volume, flow rate and intuitive info codes on flowIQ® 2200 makes it easy for end users to understand their own consumption data.

flowIQ® 2200 includes a large number of intelligent info codes and alarms. An info code indicates a special condition in the meter. If the info code is available in the display, the related symbol is on when it has been activated. If the 'condition' is not active, the sign is OFF. The info codes provide you with the exact knowledge you need to target your efforts within operations optimization, customer information, water loss and tampering. The info codes in the display have the following meaning and function:

Info code	Meaning
	The water in the meter has not been stagnant for one continuous hour during the last 24 hours. This can be a sign of a leaky faucet or toilet cistern or indicate a leakage after the meter.
	The water consumption has been consistently high for half an hour, which indicates a pipe burst.
	Attempt of fraud. The meter is no longer valid for billing.
	The meter is dry. In this case nothing will be measured.
	The water flows through the meter in the wrong direction.
	RADIO OFF flashes. The meter is still in transport mode with the built-in radio transmitter turned off. The transmitter turns on automatically when water runs through the meter for the first time.*
	RADIO OFF lights permanently. The radio is switched off permanently. Can be activated via METERTOOL.*
	The symbol appears when the expected capacity left is 6 months or less.

	Switch off automatically when the condition that activated them no longer exists.
	Disappears when the water has been stagnant for one hour.
	Disappears when the consumption falls to normal level.
	Disappears when the water no longer flows in the wrong direction.
	Disappears when the meter is filled with water.

*RADIO OFF is not available for Encoded Output meters

Data registers

The water meter has a permanent memory, in which the values of various data loggers are saved. The loggers can be read via the meter's optical eye and from communications protocols

The following registers are logged:

Description	Yearly logger	Monthly logger	Daily logger	Hourly logger
Logger depth	20 years	36 months	460 days	2400 hours
Operating hours	✓	✓	✓	✓
Info codes incl. hour counter	✓	✓	✓	✓
Volume	✓	✓	✓	✓
Volume reverse	✓	✓	✓	✓
Acoustic Noise Value Day			✓	
Flow max incl. date	✓	✓		
Flow min. incl. date	✓	✓		
Flow max day incl. Timestamp			✓	
Flow min. day incl. Timestamp			✓	
Water temp. max	✓	✓	✓	
Water temp. min.	✓	✓	✓	
Water temp. avg.	✓	✓	✓	
Ambient temp. max	✓	✓	✓	
Ambient temp. min.	✓	✓	✓	
Ambient temp. avg.	✓	✓	✓	

Every time the information code changes, date and info codes are logged. Thus, it is possible to data read the latest 50 changes of the information code as well as the date the change was made.

Integrated communication

The meter supports a variety of different communication options depending on meter type. All radio supported meters can be used with Kamstrup's external antenna. Transmission properties and data packages are defined in the configuration number YY-ZZZ. These can be changed with METERTOOL, MeterToolX or READY App through the optical IR interface or with a READY converter.*

**Depending on communication protocol*

RF

Kamstrup RF is based on Wireless M-Bus which is a mature and proven technology for remote reading of smart meters. Wireless M-Bus provides a robust, simple and secure reading of meters and requires a low initial investment, but is flexible enough to be expanded whenever desired. Wireless M-Bus is based on an European standard (EN 13757-4) applicable to devices for reading consumption of water, electricity or energy. The data encryption consists of a 128-bit AES counter mode encryption. Both AMR 912.5, 915 and 918.5 MHz and AMI 450-470 MHz are available.

For additional information about the Kamstrup RF communication module, please refer to the module data sheet, document no.: FILE100003480.

Encoded Output

The Sensus Encoded Output and TouchRead are implemented based on Sensus specification UI-1203 and UI1204. Encoded Output is compatible with several 3rd party RF network systems. Kamstrup Encoded Output supports Sensus Encoded Output systems and Sensus TouchRead systems. In addition, Neptune ProRead, Neptune E-coder systems and others are supported.

For additional information about the Kamstrup Encoded Output communication module, please refer to the Encoded Output module data sheet, document no.: FILE100003729.

State of the art meter reading system (REaDy)

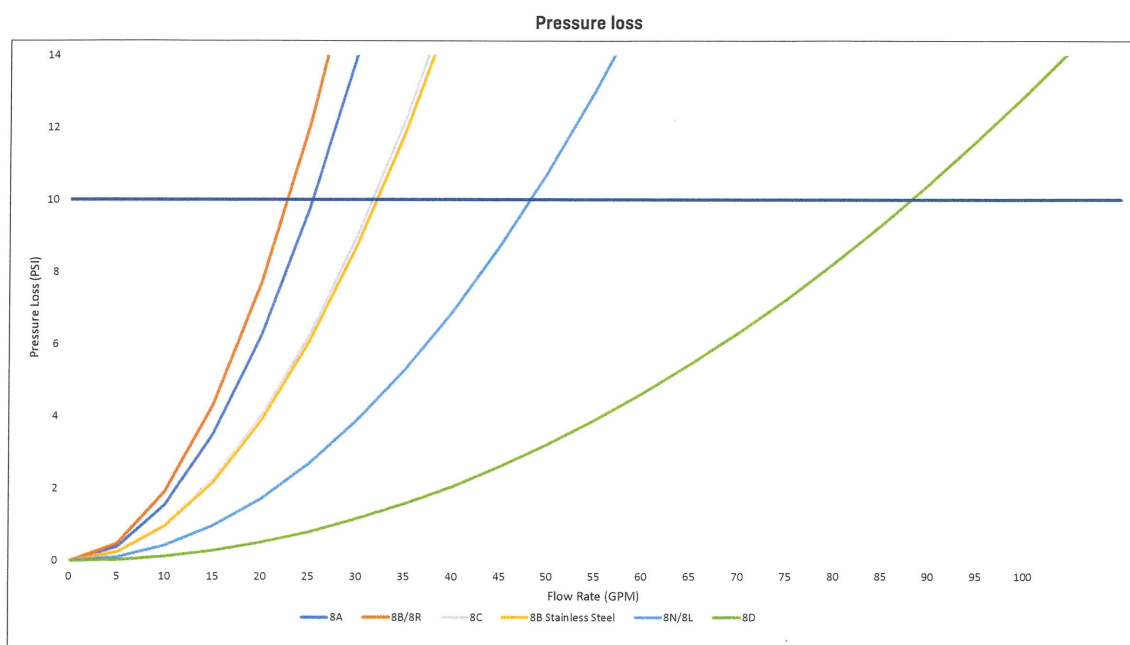
Standardized and open communication

902-928 MHz band RF is an open standard, following EN13757-4:2010, which means that while the flowIQ® 2200 can be configured with or without encryption of the transmitted signal, encryption is required in the United States.

Encryption protects personal data against unauthorized monitoring. Furthermore, the encryption file provides easy access to import meter data for reading programs.

Pressure loss

According to AWWA C715-18 Type I guideline the maximum pressure loss must not exceed 10 PSI (0.69 bar) at SMOC. The following graph shows pressure loss with respect to flow rate:



See Technical description for Water Meters North America: Document no.: FILE100001331, for more information about pressure loss.

Ordering details

Start your order by stating the type number of the selected model of flowIQ® 2200.

The type number includes information on meter type, meter version, size, lay length, service connection and time zone.

Subsequently the meter configuration, which determines customer-specific requirements such as number of digits in display etc., is selected. The configuration is completed during programming of the final meter.

Accessories are enclosed separately to be mounted by the installer.

Meter type - flowIQ® 2200

Type	□□	□	□□	□	□	□□	□	□□
Meter generation								
Second generation	02							
Mechanical design								
Composite, PPS		K						
Stainless steel		L						
Communication								
RF			02					
Encoded Output			41					
Power supply								
D-cell				D				
2 x A-cell				A				
Dynamic range								
AWWA C715-18					1			
Meter size								
5/8" x 1/2" [25GPM]; 3/4" NPSM; 7 1/2"							8A	
5/8" x 3/4" [25GPM]; 1" NPSM; 7 1/2"							8B	
5/8" x 3/4" [25 GPM]; 1" NPSM; 5.1"							8R	
3/4" [32GPM]; 1" NPSM; 7 1/2" or 9"; includes 1 1/2" extension							8C	
3/4" [35GPM]; 1" NPSM; 7 1/2"							8N	
3/4" [35GPM]; 1" NPSM; 9"							8L	
1" [55GPM]; 1 1/4" NPSM; 10 3/4"							8D	
Meter type								
Cold water								8
Reclaimed water ¹⁾								9
Country code								
North America, FCC and NSF approved								UB
Canada, ISED and NSF approved								CA
Mexico, IFT and NSF approved								MX

¹⁾Only available for RF communication

The features included in the type number cannot be changed once the meter has been produced.

Configuration - flowIQ® 2200

Config	DDD □□□	JJ □□	LLL □□□	MMMM □□□□	N □	P □	S □	U □	RR □□	CCC □□□	V □	T □	YY □□	ZZZ □□□
Display views														
Standard	810													
GMT offset (time zone)														
USA Eastern (GMT-5)		28												
USA Central (GMT-6)		24												
USA Mountain (GMT-7)		20												
USA Pacific (GMT-8)		16												
Target date (handled as order data)														
Max values averaged over time (1..120 min.)														
2 minutes			002											
Customer label (2060-) Alphanumeric														
Customer label blank (default)				5000										
Kamstrup serial number				0010										
Incremented number - 8 digits				8004										
Customer specific labels				MMMM										
Leakage message limit														
OFF					9									
Flow continuously > 0.25% of max flow					2									
Flow continuously > 0.5% of max flow					3									
Flow continuously > 1.0% of max flow					4									
Flow continuously > 2.0% of max flow					5									
Pipe burst limit														
OFF					0									
Flow > 5% of max flow for 30 minutes					1									
Flow > 10% of max flow for 30 minutes					2									
Flow > 20% of max flow for 30 minutes					3									
Ambient Temperature low limit														
OFF					0									
Ambient temperature < 2 °C / 36 °F					2									
Ambient temperature < 3 °C / 37 °F					3									
Ambient temperature < 6 °C / 43 °F					6									
Ambient Temperature high limit														
OFF					0									
Ambient temperature > 35 °C / 95 °F					3									
Ambient temperature > 45 °C / 113 °F					6									
Data logger profile														
Standard RF									04					
Standard Encoded Output									15					
To be continued on next page...														

Configuration - flowIQ® 2200

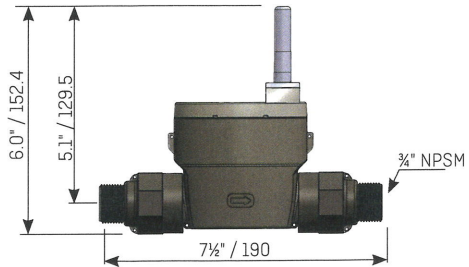
Config	DDD	JJ	LLL	MMMM	N	P	S	U	RR	CCC	V	T	YY	ZZZ
...	□□□	□□	□□□	□□□□	□	□	□	□	□□	□□□	□	□	□□	□□□
...continued from previous page														
Display resolution (alphanumeric)														
0000000.00 USgal - 0.01 GPM - Billing in 1,000s (recommended for residential meters)										220				
000000000 ft³ - 0000 GPM - Billing in 1,000s (recommended for district meters)										154				
For additional options please refer to FILE100002712														
Temperature units of measure														
Fahrenheit											1			
Celsius											0			
Encryption level														
Encryption with separately forwarded key												3		
No encryption (applicable for Encoded meters)												0		
Communication														
For communication protocols please refer to the section "Integrated Communication"														

	DDD	JJ	LLL	MMMM	N	P	S	U	RR	CCC	V	T	YY	ZZZ
Unless otherwise stated in the order, Kamstrup supplies the following:	810	□□	002	5000	4	3	3	3	04	220	1	3	YY	ZZZ

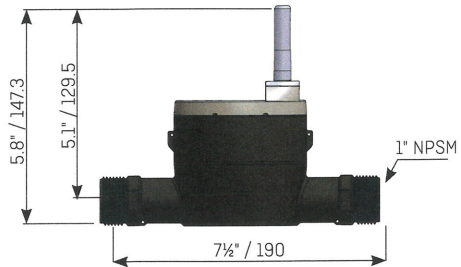
Note: JJ (time zone) and target date are not predefined and has to be chosen in the ordering system.

Dimensional sketches – flowIQ® 2200

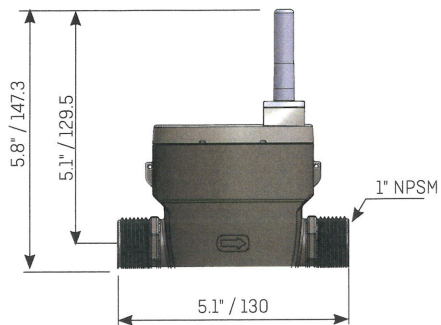
Type: 8A – Size: 25 GPM $\frac{5}{8}$ " x $\frac{1}{2}$ " x $7\frac{1}{2}$ "



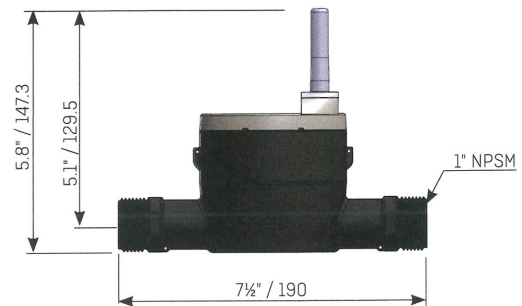
Type: 8B – Size: 25 GPM $\frac{5}{8}$ " x $\frac{3}{4}$ " x $7\frac{1}{2}$ "



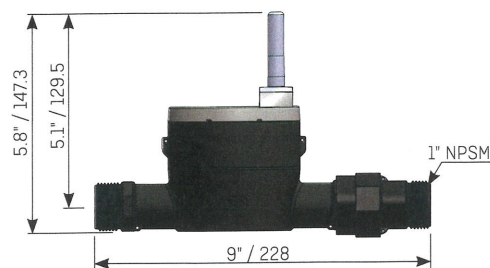
Type: 8R – Size: 25 GPM $\frac{5}{8}$ " x $\frac{3}{4}$ " x 5.1"



Type: 8C – Size: 32 GPM $\frac{3}{4}$ " x $\frac{3}{4}$ " x $7\frac{1}{2}$ "



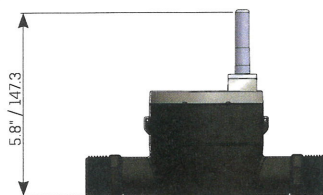
Type: 8C+ – Size: 32 GPM $\frac{3}{4}$ " x $\frac{3}{4}$ " x 9"



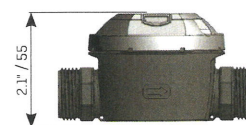
Encoded Output has the exact same dimensions as RF – apart from the meter cup height.

Examples:

Type: 8B – Size: 25 GPM $\frac{5}{8}$ " x $\frac{3}{4}$ " x $7\frac{1}{2}$ "

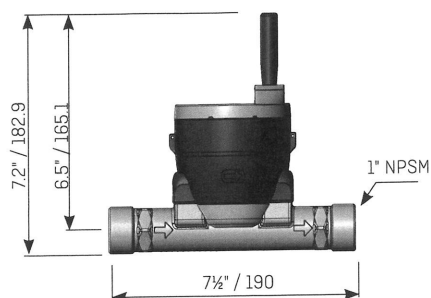


Type: 8R – Size: 25 GPM $\frac{5}{8}$ " x $\frac{3}{4}$ " x 5.1"

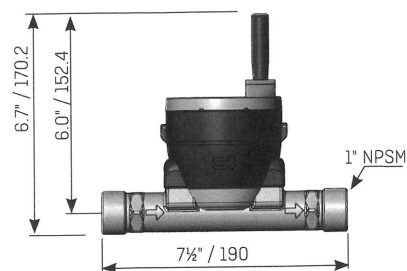


Dimensional sketches – flowIQ® 2200

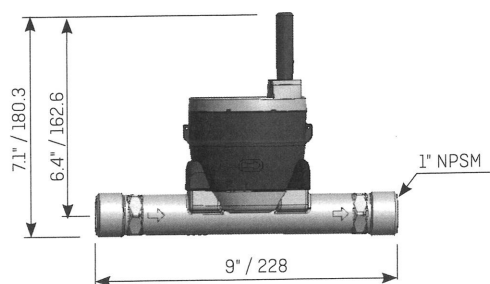
Type: 8B – Size: 25 GPM $\frac{5}{8}$ " x $\frac{3}{4}$ " x $7\frac{1}{2}$ "



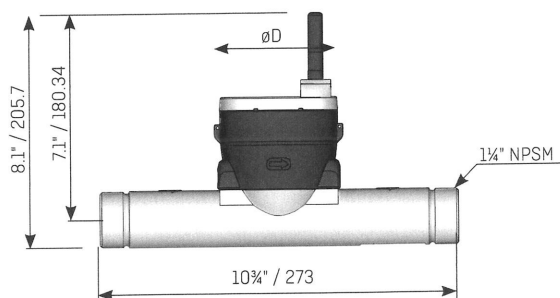
Type: 8N – Size: 35 GPM $\frac{3}{4}$ " x 1" x $7\frac{1}{2}$ "



Type: 8L – Size: 35 GPM $\frac{3}{4}$ " x 1" x 9"



Type: 8D – Size: 55 GPM 1" x $1\frac{1}{4}$ " x $10\frac{3}{4}$ "



NOTE! Same threads for in- and outlet. / Dimensions: Inches/mm

Dimensions

flowIQ® 2200 RF

Mechanical design	Meter type	Meter size GPM	NPSM thread	L	H	øD	Weight approx. [Lbs / Kg]
				[Inches / mm]			
Composite	8A	25	¾"	7½" / 190	6.0" / 152.4	3.6" / 91.4	1.08 / 0.49
Composite	8B	25	1"	7½" / 190	5.8" / 147.3	3.6" / 91.4	1.01 / 0.46
Composite	8R	25	1"	5.1" / 130	5.8" / 147.3	3.6" / 91.4	1.01 / 0.46
Composite	8C	32	1"	7½" / 190	5.8" / 147.3	3.6" / 91.4	1.01 / 0.46
Composite	8C+	32	1"	9" / 228	5.8" / 147.3	3.6" / 91.4	1.10 / 0.50
Stainless steel	8B	25	1"	7½" / 190	7.2" / 182.9	3.6" / 91.4	1.01 / 0.46
Stainless steel	8N	35	1"	7½" / 190	6.7" / 170.2	3.6" / 91.4	2.2 / 1.0
Stainless steel	8L	35	1"	9" / 228	7.1" / 180.3	3.6" / 91.4	2.5 / 1.13
Stainless steel	8D	55	1¼"	10¾" / 273	8.1" / 205.7	3.6" / 91.4	4.1 / 1.86

flowIQ® 2200 EO

Mechanical design	Meter type	Meter size GPM	NPSM thread	L	H	øD	Weight approx. [Lbs / Kg]
				[Inches / mm]			
Composite	8A	25	¾"	7½" / 190	2.1" / 55	3.6" / 91.4	0.90 / 0.41
Composite	8B	25	1"	7½" / 190	2.1" / 55	3.6" / 91.4	0.86 / 0.39
Composite	8R	25	1"	5.1" / 130	2.1" / 55	3.6" / 91.4	0.86 / 0.39
Composite	8C	32	1"	7½" / 190	2.1" / 55	3.6" / 91.4	1.01 / 0.46
Composite	8C+	32	1"	9" / 228	2.1" / 55	3.6" / 91.4	0.93 / 0.42
Stainless steel	8B	25	1"	7½" / 190	3.9" / 101	3.6" / 91.4	1.87 / 0.85
Stainless steel	8N	35	1"	7½" / 190	3.9" / 101	3.6" / 91.4	1.87 / 0.85
Stainless steel	8L	35	1"	9" / 228	3.9" / 101	3.6" / 91.4	2.09 / 0.95
Stainless steel	8D	55	1¼"	10¾" / 273	4.2" / 109	3.6" / 91.4	2.82 / 1.28

Accessories

See accessories for water meters on Kamstrup.com, document no.: FILE100000644.

Accessories are ordered separately in CPQ (Kamstrup ordering system) and will be delivered as single parts in the packaging.

Data sheet

flowIQ® 3200

- » RF
- » Encoded

- Ultrasonic measurement
- Sustainable measurement accuracy
- Flow measurement in display
- Multiple radio options available
- IP68 Vacuum sealed construction
- Lead free and certified to NSF/ANSI 61
- Fire Service approved



Contents

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Electronic ultrasonic cold water meter for measurement of cold water consumption in households, multi-unit buildings and industry

Sustainable accuracy

Ultrasonic flow measurement guarantees sustainable accuracy and longevity. Ultrasonic flow measurement is based on the transit time method, and all measurements, references, readings, calculations and data communication are controlled by an advanced, specially designed electronic circuit. Thus, the meter includes no moving parts, which makes flowIQ® 3200 less sensitive to wear and tear and impurities in the water.

Construction

The meter is hermetically closed and vacuum-sealed to prevent humidity from reaching the electronics and avoid condensation between the glass and display. The meter is IP68 (submersible) type tested and suitable for installation in meter pits.

Installation

flowIQ® 3200 is easy to install in all operating environments, horizontally as well as vertically, independent of piping and installation conditions. Consumption data can be read visually from the display, using an optical eye, and remotely read, by various integrated communication protocols.

Specific features

flowIQ® 3200 measures the water and environment temperatures and it includes leak detection, securing that water loss is discovered quickly.

The unique combination of all the flowIQ® 3200 features reduces current operating costs to measure water usage and minimizes unexpected expenses in connection with possible leakage.

Environmentally friendly

The meter has been approved according to Drinking Water Standards and is certified to NSF/ANSI 61. The meter housing and measuring part are made of the high performance thermoplastic material polyphenylene sulfide (PPS) with 40% fiberglass, which is free from lead and other heavy metals. The environmental report, Carbon Footprint, documents the meter's high reusability and low environmental impact, including recycling of materials.

Hygiene

To protect the health of the consumers Kamstrup has a hygienic manufacturing process of the water meters.

Kamstrup also has a highly automated manufacturing process and only uses materials approved for drinking water. Furthermore the products gets disinfected before dispatch. The hygiene is being controlled by external accredited laboratories and by frequent audits.

General description

flowIQ® 3200 is a hermetically sealed water meter intended for measurement of cold and *reclaimed water consumption in residential and multi-unit buildings and commercial applications.

flowIQ® 3200 employs the ultrasonic measurement principle, based on Kamstrup's experience since 1991, with the initial development and production of static ultrasonic meters.

flowIQ® 3200 is available in an Encoded Output version with 2 x A-cell battery supply and a RF version with 1 x D-cell battery supply.

One of flowIQ® 3200's many advantages is the fact that it has no wearing parts, which ensures a high and stable accuracy throughout its lifetime. flowIQ® 3200 complies with all the AWWA C715-18 and CN1044 fire service guideline for Ultrasonic Water Meters.

In the flowIQ® 3200 series a composite housing is mounted on a stainless steel meter body. Thus, the electronics are fully protected against internal or external penetration of water.

flowIQ® 3200 is suitable for measurement in multi-unit apartments and light commercial premises. The meter is suitable for mounting in pump stations or wellheads, as it will also function in fully submerged conditions.

flowIQ® 3200 measures the water consumption electronically, as a volume, using a pair of ultrasonic signals. Through two ultrasonic transducers, an ultrasonic signal is sent with and against the flow direction. A transducer serves both as a 'speaker' when transmitting and as a 'microphone' when a signal is received. The ultrasonic signal traveling with the flow will be the first to reach the opposite transducer, while the signal running against the flow will be received a little later. The time difference between the two signals can be converted into flow velocity, and thereby also into a volume. The measuring principle is a proven, long-term stable and accurate measuring principle.

In addition to volume reading, an indication of current flow and a number of other information codes are displayed. All registers are saved daily in the meter data logger (EEPROM) and are kept for 460 days. Furthermore, monthly data for the latest 36 months, hourly data for the latest 100 days and 50 info code events are saved.

flowIQ® 3200 is powered by an internal lithium battery which can provide up to 20 years operating life.

flowIQ® 3200 is available with a choice of integrated data communication options:

- 912.5, 915 or 918.5 MHz – RF
- 450-470 MHz - RF
- Encoded Output

The meter is fitted with an optical eye which makes it possible to read saved consumption data and info codes, stored in the meter's data logger. Using an optical reading head, it is also possible to change the meter configuration e.g. data packages. flowIQ® 3200 can and must only be opened by Kamstrup A/S. If the meter has been opened and the sealing has thus been broken, the meter is no longer valid for billing purposes and the warranty is void.

* For information concerning reclaimed water we refer to document no.: FILE100003532

Technical data

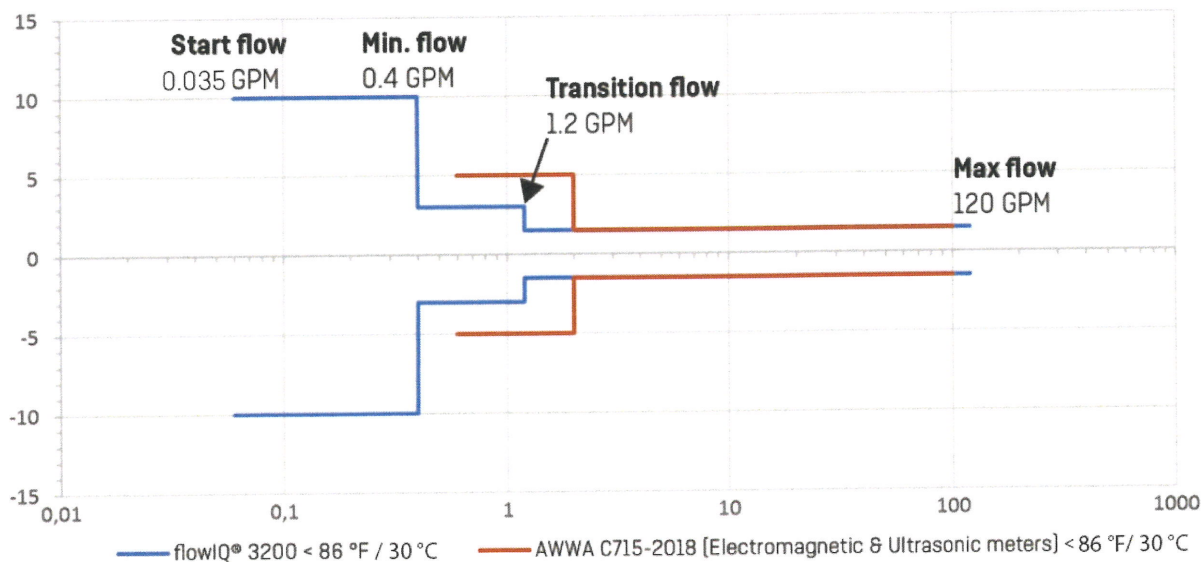
Electrical data

Battery (flowIQ® 3200 RF)	D-cell battery, 3.6V, 19Ah. The battery warranty does not apply at meter temperatures above $t_{BAT} > 95\text{ °F} / 35\text{ °C}$
Battery (flowIQ® 3200 E0)	2 x A-Cell battery, 3.6V, 3.6Ah. The battery warranty does not apply at meter temperatures above $t_{BAT} > 95\text{ °F} / 35\text{ °C}$

Mechanical data

Protection class	IP68-rated (waterproof/submersible)
Mechanical environment	Class M1 (Measuring Instruments Directive classification)
Maximum operating pressure	Oval flange mounted, 300 PSI / (20.7 bar) Round flange mounted, 275 PSI (19 bar)
Ambient/meter temperature	35...130 °F / 0.5...55 °C
Water temperature	33...120 °F / 0.5...50 °C
Storage temp. empty sensor	-10...140 °F / -20...60 °C

Accuracy



Note: At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow

Approved meter data

Certified to NSF/ANSI 61.
Complies to part 15 of the FCC rules, ISSED, IFT and with AWWA C715-18 and CN1044.

Material

Wetted parts

Flow part, threaded/flanged	Stainless Steel 316L
O-ring/gasket	EPDM
Measuring tube	PPS with fiberglass
Reflectors	Stainless steel

External meter parts

Meter housing	Polyphenylene sulfide (PPS) – 40% fiberglass
Cover	Glass
Spring ring	Stainless steel
Top ring (sealing)	Polycarbonate (gray)

Meter sizes

flowIQ® 3200 is available in the sizes shown in table below:

XX = Communication module Y = Battery supply ZZ = Country code

Type number	Meter size	Start flow [S]	Min. flow	Transition flow ¹⁾	Max flow	Sat. flow rate	Pressure loss SMOC	Connection on meter	Lay length	Strainer	Temp. measurement of water
	Inches	[GPM]/ [L/h]	[GPM]/ [L/h]	[GPM]/ [m³/h]	[GPM]/ [m³/h]	[GPM]/ [m³/h]	[PSI]/ [bar]		[Inches]/ [mm]		
02-L-XX-Y-1-8F-8ZZ	1½"	0.035/ 8	0.4/ 90.8	1.2/ 0.27	120/ 27.25	168/ 38.16	5.5/ 0.38	1½" ²⁾	13"/ 330	No	Yes
02-L-XX-Y-1-8H-8ZZ	2"	0.088/ 20	0.5/ 113.6	1.5/ 0.34	160/ 36.34	224/ 50.88	1.8/ 0.12	2"	17"/ 432	No	Yes
02-L-XX-Y-1-8M-8ZZ	2"	0.088/ 20	0.5/ 113.6	1.5/ 0.34	160/ 36.34	224/ 50.88	1.8/ 0.12	2"	15¼"/ 387	No	Yes
02-L-XX-Y-1-8K-8ZZ	3"	0.22/ 50	1.1/ 249.8	7.5/ 1.70	350/ 79.49	490/ 111.29	3.5/ 0.24	3"	12"/ 305	No	Yes
02-L-XX-Y-1-8P-8ZZ	4"	0.35/ 80	1.7/ 386.1	5/ 1.14	700/ 158.99	980/ 222.58	4/ 0.27	4"	14"/ 356	No	Yes

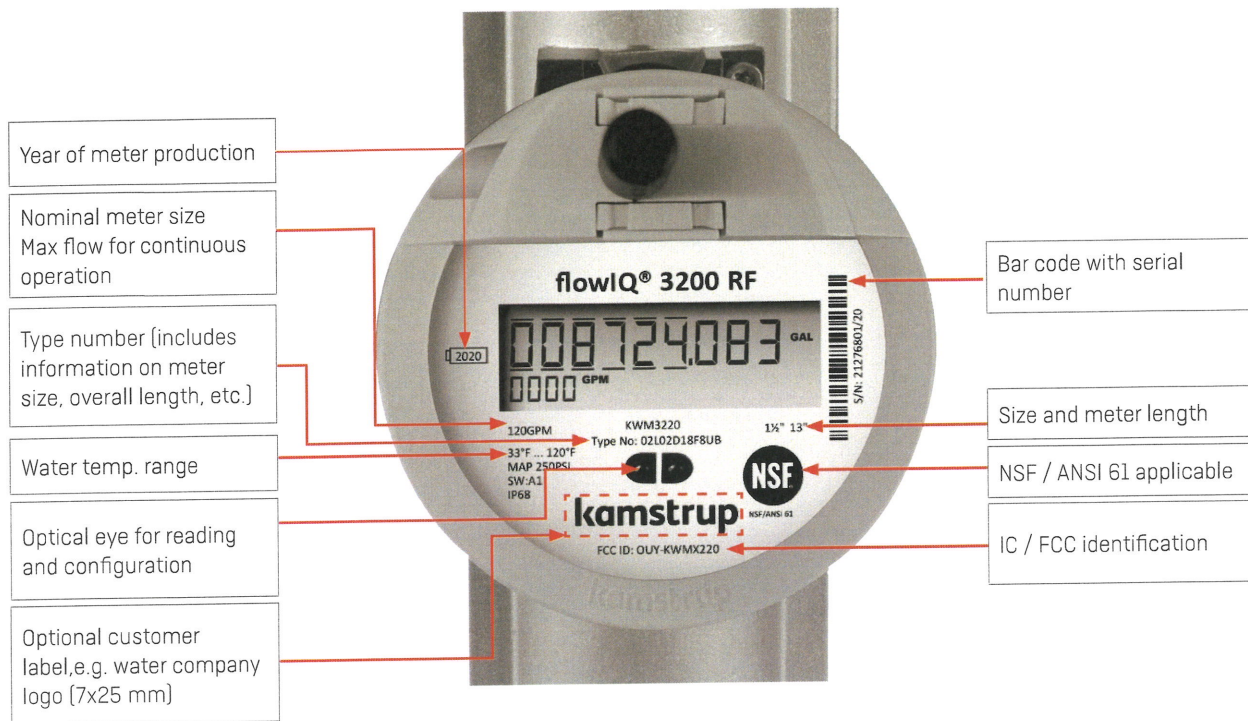
¹⁾ At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow.

²⁾ Only >1½" meters are recognized by the CN1044 approval standard for fire service meters.

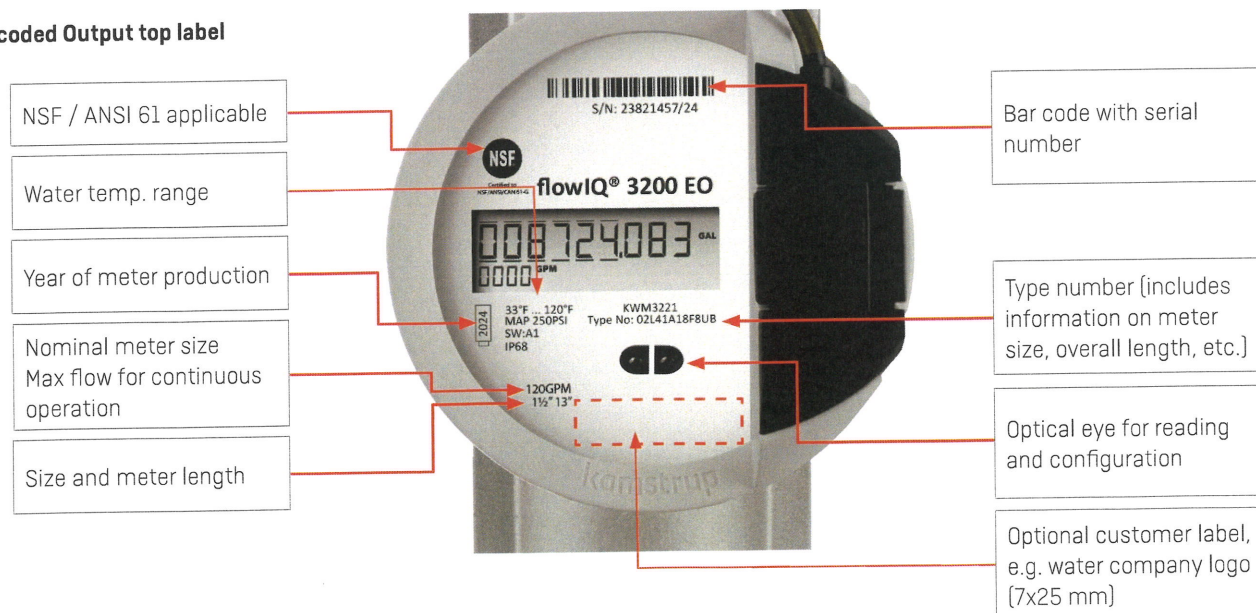
Meter face details

Meter information in permanent laser engraved text. Note: Only FM fire service meters will be stamped with the FM approval mark.

RF top label



Encoded Output top label



Core features

Water meters placed throughout the network make it possible to gather information that can be of vital importance for an effective water supply, asset management and improved customer service.

Temperature monitoring

flowIQ® 3200 measures ambient temperatures.

Information on temperatures above or below the configured temperature in the meter will warn the utility on potential frost damages or quality issues.

These measurements can be used to monitor the installation and will indicate the water's quality.

Consumption above max flow

The meter logs information on consumption above max flow. This information can be used to indicate if the meter size for a given installation is correct.

Consumption histogram

The meter tracks consumptions in different flow intervals for further analysis of the consumption patterns for the specific installation.

Acoustic Leakage Detection

For 1½" and 2", the flowIQ® 3200 water meter introduces integrated acoustic leak detection, enabling continuous monitoring of both distribution mains and service lines without the need for additional hardware or external reading infrastructure. This built in functionality expands Kamstrup's proactive leak detection solution, offering near system wide coverage that enhances operational efficiency, reduces non-revenue water, and supports long-term asset management strategies.

Current flow display

Besides the consumed volume, flowIQ® 3200 also shows the current flow in the display. The flow display has been designed with user experience in mind, where it can be advantageous, for example during installation, to be able to see the current consumption. In this context, it is important to stress that the metrological approval of the water meter is only related to the volume reading. Due to the meter's update time, the flow display, in case of rapidly increasing/decreasing flow, may turn out to be slower than the real flow and not a one-to-one correlation between the flow display and the volume growth.

In general, one would expect the flow display to stabilize after about half a minute of constant flow and thereafter to be consistent with volume growth.

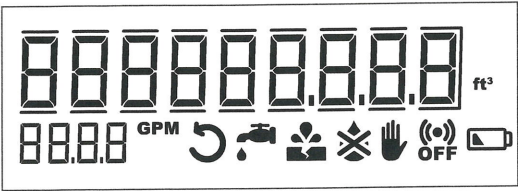
Meter modes

flowIQ® 3200 can operate in two modes, Normal and Verification mode.

Verification mode is only used by authorized laboratories during verification.

flowIQ® 3200 RF	Normal mode	Verification mode
Flow measurement and flow display update	1 s	0.125 s
Volume integration and volume display update	8 s	1 s
flowIQ® 3200 EO	Normal mode	Verification mode
Flow measurement and flow display update	2 s	0.125 s
Volume integration and volume display update	16 s	1 s






Display and info codes



The large display with totalized volume, flow rate and intuitive info codes on flowIQ® 3200 makes it easy for end users to understand their own consumption data.

flowIQ® 3200 includes a large number of intelligent info codes and alarms. An info code indicates a special condition in the meter. If the info code is available in the display, the related symbol is on when it has been activated. If the 'condition' is not active, the sign is OFF. The info codes provide you with the exact knowledge you need to target your efforts within operations optimization, customer information, water loss and tampering. The info codes in the display have the following meaning and function:

Info code	Meaning
	Water in the meter has not been stagnant for one continuous hour during the latest 24 hours. This can be a sign of a leaky faucet or toilet cistern or indicate a leakage after the meter.
	The water consumption has been consistently high for half an hour, which indicates a pipe burst.
	Attempt of fraud. The meter is no longer valid for billing.
	The meter is dry. In this case nothing will be measured.
	The water flows through the meter in the wrong direction.
	RADIO OFF flashes. The meter is still in transport mode with the built-in radio transmitter turned off. The transmitter turns on automatically on the first time water runs though the meter.*
	RADIO OFF lights permanently. The radio is switched off permanently. Can be activated via METERTOOL..*
	The symbol appears when the expected capacity left is 6 months or less.

-  Switch off automatically when the condition that activated them no longer exists.
-  Disappears when the water has been stagnant for one hour.
-  Disappears when the consumption falls to normal level.
-  Disappears when the water no longer flows in the wrong direction.
-  Disappears when the meter is filled with water.

*RADIO OFF is not available for Encoded Output meters

Data registers

The water meter has a permanent memory, in which the values of various data loggers are saved. The loggers can be read via the meter's optical eye and from communications protocols.

The following registers are logged:

Description	Yearly logger	Monthly logger	Daily logger	Hourly logger
Logger depth	20 years	36 months	460 days	2400 hours
Operating hours	✓	✓	✓	✓
Info codes incl. hour counter	✓	✓	✓	✓
Volume	✓	✓	✓	✓
Volume reverse	✓	✓	✓	✓
Flow max incl. date	✓	✓		
Flow min. incl. date	✓	✓		
Flow max day incl. timestamp			✓	
Flow min. day incl. timestamp			✓	
Water temp. max	✓	✓	✓	
Water temp. min.	✓	✓	✓	
Water temp. avg.	✓	✓	✓	
Ambient temp. max	✓	✓	✓	
Ambient temp. min.	✓	✓	✓	
Ambient temp. avg.	✓	✓	✓	

Every time the information code changes, date and info codes are logged. Thus, it is possible to data read the latest 50 changes of the information code as well as the date the change was made.

Integrated communication

The meter supports a variety of different communication options depending on meter type. All radio supported meters can be used with Kamstrup's external antenna. Transmission properties and data packages are defined in the configuration number YY-ZZZ. These can be changed with METERTOOL, MeterToolX or READy App through the optical IR interface or with a READy Converter.*

**Depending on communication protocol*

RF

Kamstrup RF is based on Wireless M-Bus which is a mature and proven technology for remote reading of smart meters. Wireless M-Bus provides a robust, simple and secure reading of meters and requires a low initial investment, but is flexible enough to be expanded whenever desired. Wireless M-Bus is based on an European standard (EN 13757-4) applicable to devices for reading consumption of water, electricity, or energy. The data encryption consists of a 128-bit AES counter mode encryption. Both AMR 912.5, 915 and 918.5 MHz and AMI 450-470 MHz are available.

For additional information about the Kamstrup RF communication module, please refer to the RF module data sheet, document no.: FILE100003480.

Encoded Output

The Sensus Encoded Output and TouchRead are implemented based on Sensus specification UI-1203 and UI1204. Encoded Output is compatible with several 3rd party RF network systems. Kamstrup encoded output supports Sensus Encoded Output systems and Sensus TouchRead systems. In addition, Neptune ProRead, Neptune E-coder systems and others are supported.

For additional information about the Kamstrup Encoded Output communication module, please refer to the Encoded Output module data sheet, document no.: FILE100003729.

State of the art meter reading system (READy)

Standardized and open communication

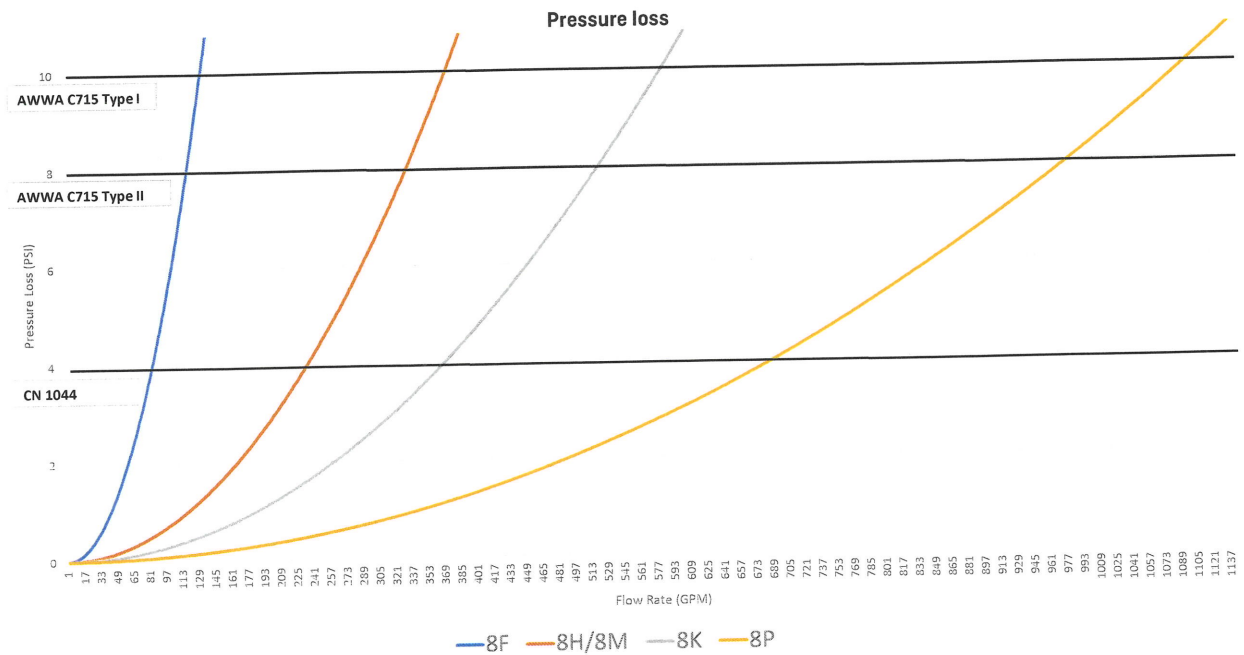
902-928 MHz band RF is an open standard, following EN13757-4:2010, which means that while the flowIQ® 3200 can be configured with or without encryption of the transmitted signal, encryption is required in the United States.

Encryption protects personal data against unauthorized monitoring. Furthermore, the encryption file provides easy access to import meter data for reading programs.

Pressure loss

According to AWWA C715-18 Type I the maximum pressure loss must not exceed 10 PSI (0.69 bar) for ½"-2"meters and 8 PSI (0.55 bar) for 3"-4" at SMOC.

According to CN1044 the maximum pressure loss must not exceed 4 PSI (0.27 bar) at SMOC for FM fire service meters. The following graph shows pressure loss with respect to flow rate:



See document no.: FILE100000199 for more information about pressure loss.

Ordering details

Start your order by stating the type number of the selected model of flowIQ® 3200. The type number includes information on meter type - meter version, size, lay length, service connection and time zone.

Subsequently the meter configuration, which determines customer-specific requirements such as number of digits in display etc., is selected. The configuration is completed during programming of the final meter.

Meter type - flowIQ® 3200

Type	□□	□	□	□	□	□□	□	□□
Meter generation								
Second generation	02							
Mechanical design								
Stainless steel		L						
Communication								
RF			02					
Encoded Output			41					
Power supply								
D-cell				D				
2 x A-cell				A				
Dynamic range								
AWWA C715-18 and CN1044					1			
Meter size								
1½" (120GPM); 1½" Flange; 13"							8F	
2" (160 GPM); 2" Flange; 17"							8H	
2" (160 GPM); 2" Flange; 15¼"							8M	
3" (350 GPM); 3" Flange; 12"							8K	
4" (700 GPM); 4" Flange; 14"							8P	
Meter type								
Cold water								8
Reclaimed water ¹⁾								9
Country code								
North America, FCC and NSF approved								UB
Canada, ISED and NSF approved								CA
FM fire service approved								FM
Mexico, IFT and NSF approved								MX

¹⁾Only available for RF communication

Fiber gaskets can be ordered with flowIQ® metal meters.

The features included in the type number cannot be changed once the meter has been produced.

Configuration - flowIQ® 3200

Config	DDD □□□	JJ □□	LLL □□□	MMMM □□□□	N □	P □	S □	U □	RR □□	CCC □□□	V □	T □	YY □□	ZZZ □□□
Display views ¹⁾														
Standard	810													
GMT offset (time zone)														
USA Eastern (GMT-5)		28												
USA Central (GMT-6)		24												
USA Mountain (GMT-7)		20												
USA Pacific (GMT-8)		16												
Target date (handled as order data)														
Max values averaged over time (1..120 min.)														
2 minutes			002											
Customer label (2060-) Alphanumeric														
Customer label blank (default)				5000										
Kamstrup serial number				0010										
Incremented number - 8 digits				8004										
Customer specific labels				MMMM										
Leakage message limit														
OFF					9									
Flow continuously > 0.1% of max flow (not recommended)					1									
Flow continuously > 0.25% of max flow					2									
Flow continuously > 0.5% of max flow					3									
Flow continuously > 1.0% of max flow					4									
Flow continuously > 2.0% of max flow					5									
Pipe burst limit														
OFF					0									
Flow > 5% of max flow for 30 minutes					1									
Flow > 10% of max flow for 30 minutes					2									
Flow > 20% of max flow for 30 minutes					3									
Ambient Temperature low limit														
OFF					0									
Ambient temperature < 2 °C / 36 °F					2									
Ambient temperature < 3 °C / 37 °F					3									
Ambient temperature < 6 °C / 43 °F					6									
Ambient Temperature high limit														
OFF					0									
Ambient temperature > 35 °C / 95 °F					3									
Ambient temperature > 45 °C / 113 °F					6									
Data logger profile														
Standard (default)									04					
Standard Encoded Output									15					
To be continued on next page...														

Configuration - flowIQ® 3200

Config	DDD	JJ	LLL	MMMM	N	P	S	U	RR	CCC	V	T	YY	ZZZ
	□□□	□□	□□□	□□□□	□	□	□	□	□□	□□□	□	□	□□	□□□
...continued from previous page														
Display resolution (alphanumeric)														
0000000.00 USgal - 0.01 GPM - Billing in 1,000s (recommended for residential meters)										223				
000000000 ft³ - 0000 GPM - Billing in 1,000s (recommended for district meters)										154				
For additional options please refer to FILE100002712														
Temperature units of measure														
Fahrenheit											1			
Celsius											0			
Encryption level														
Encryption with separately forwarded key												3		
No encryption (applicable for Encoded meters)												0		
Communication														
For communication protocols please refer to the specific module data sheets														

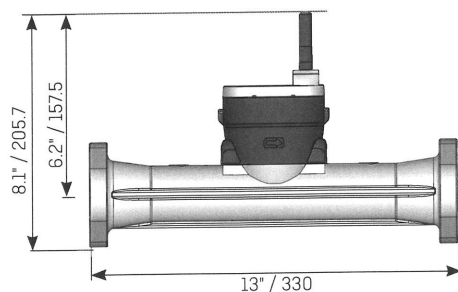
	DDD	JJ	LLL	MMMM	N	P	S	U	RR	CCC	V	T	YY	ZZZ
Unless otherwise stated in the order, Kamstrup supplies the following:	810	□□	002	5000	4	3	3	3	04	154	1	3	yy	ZZZ

Note: JJ (timezone) and target date are not predefined and has to be chosen in the ordering system.

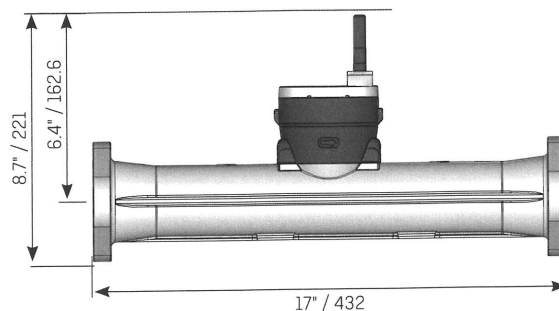
Dimensional sketches – flowIQ® 3200

NOTE! Same flanges for in- and outlet.

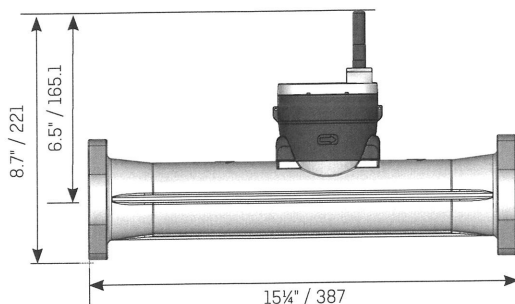
Type: 8F – Size: 120 GPM 1½" x 1½" x 13"



Type: 8H – Size: 160 GPM 2" x 2" x 17"

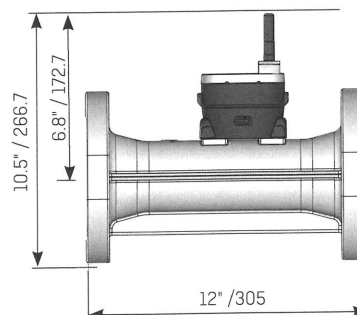


Type: 8M – Size: 160 GPM 2" x 2" x 15¼"

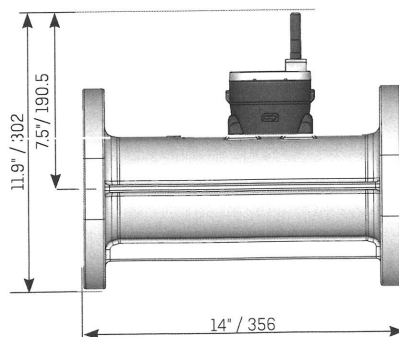


Type: 8K – Size: 350 GPM 3" x 3" x 12"

T



Type: 8P – Size: 700 GPM 4" x 4" x 14"



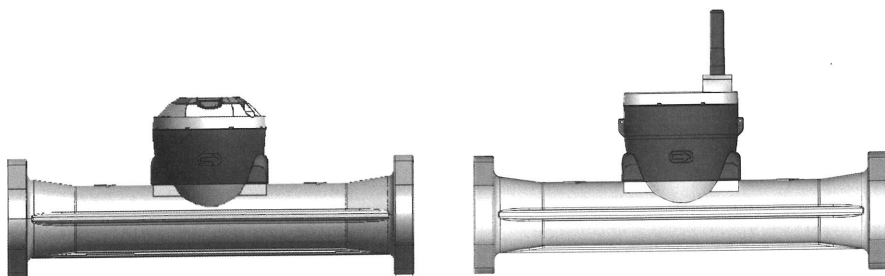
Dimensional sketches – flowIQ® 3200

Encoded Output and RF have the exact same dimensions apart from the meter cup height.

Example:

Type: 8F – Size: 120 GPM 1½" x 1½" x 13"

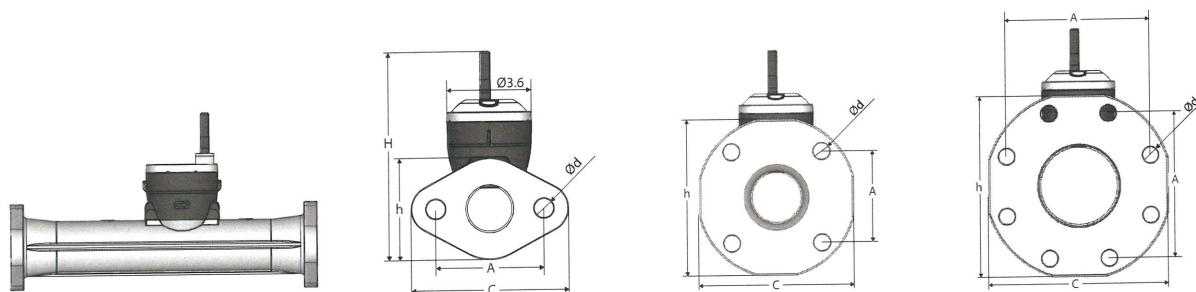
Size: 120 GPM 1½" x 1½" x 13"



Dimensions

flowIQ® 3200 RF

FlowIQ® 3200 RF									
Meter type	Meter size GPM	Connection	L	H	h	A	C	d	Weight approx. [Lbs / Kg]
			[Inch / mm]						
8F	120	1½" flange	13"/ 330	8.07"/205	3.6"/ 91.4	4.0"/ 101.6	5.7"/ 144.8	0.79"/ 20.07	13/ 5.9
8H	160	2" flange	17"/ 432	8.66"/220	4.13"/ 104.9	4.49"/ 114	6.54"/ 166.1	0.79"/ 20.07	19/ 8.6
8M	160	2" flange	15¼"/ 387	8.66"/220	4.13"/ 104.9	4.49"/ 114	6.54"/ 166.1	0.79"/ 20.07	17/ 7.7
8K	350	3" flange	12"/ 305	10.47"/265.9	7.24"/ 183.9	4.24"/ 107.7	7.24"/ 183.9	0.75"/ 19.05	31/ 14.1
8P	700	4" flange	14"/ 356	11.85"/301	8.66"/ 220	6.93"/ 176	8.66"/ 220	0.75"/ 19.05	43/ 19.5



flowIQ® 3200 EO

FlowIQ® 3200 EO									
Meter type	Meter size GPM	Connection	L	H	h	A	C	d	Weight approx. [Lbs / Kg]
			[Inch / mm]						
8F	120	1½" flange	13"/	5.39"/	3.6"/	4.0"/	5.7"/	0.79"/	9.3/
			330	137	91.4	101.6	144.8	20.07	4.2
8H	160	2" flange	17"/	5.98"/	4.13"/	4.49"/	6.54"/	0.79"/	14.2/
			432	152	104.9	114	166.1	20.07	6.5
8M	160	2" flange	15¼"/	5.98"/	4.13"/	4.49"/	6.54"/	0.79"/	16.2/
			387	152	104.9	114	166.1	20.07	7.4
8K	350	3" flange	12"/	7.7"/	7.24"/	4.24"/	7.24"/	0.75"/	34.1/
			305	198	183.9	107.7	183.9	19.05	15.5
8P	700	4" flange	14"/	9.17"/	8.66"/	6.93"/	8.66"/	0.75"/	44.5/
			356	233	220	176	220	19.05	20.2

Data sheet

flowIQ® 4200

- » RF
- » Encoded Output

- Ultrasonic measurement
- Sustainable measurement accuracy
- Flow measurement in display
- Multiple radio options available
- Fire service approved
- IP68 Vacuum sealed construction
- Lead free and certified to NSF/ANSI 61
- Replaceable battery
- Coated split flanges in cast iron



Contents

Technical data	4
Material	5
Meter sizes	5
Meter face details	6
Core features	7
Meter modes	7
Replaceable battery	7
Display and info codes	8
Data registers	9
Integrated communication	10
State of the art meter reading system (READy)	11
Pressure loss	11
Ordering details	12
Configuration	13
Dimensional sketches	14
Accessories	15

Electronic ultrasonic cold water meter for measurement of cold water consumption in multi-unit buildings, commercial applications and industry

Sustainable accuracy

Ultrasonic flow measurement guarantees sustainable accuracy and longevity. Ultrasonic flow measurement is based on the transit time method, and all measurements, references, readings, calculations and data communication are controlled by an advanced, specially designed electronic circuit. Thus, the meter includes no moving parts, which makes flowIQ® 4200 less sensitive to wear and tear and impurities in the water.

Construction

The meter is hermetically closed and vacuum-sealed to prevent humidity from reaching the electronics and avoid condensation between the glass and display. The meter is IP68 (submersible) and is suitable for installation in meter pits.

Installation

flowIQ® 4200 is easy to install horizontally as well as vertically, independent of piping and installation conditions.

Consumption data can be read visually from the display, using an optical IR interface head, or remotely read, by various integrated communication protocols.

Specific features

flowIQ® 4200 measures the environmental temperatures.

The battery package is replaceable without decommissioning the meter, allowing for easy and convenient asset management.

flowIQ® 4200 utilizes split flanges allowing for flexible installation options.

Environmentally friendly

The meter has been approved according to Drinking Water Standards and is certified to NSF/ANSI 61. The meter housing is made of stainless steel which is free from lead and other heavy metals. The environmental report, Carbon Footprint, documents the meter's high reusability and low environmental impact, including recycling of materials.

Hygiene

To protect the health of the consumers Kamstrup has a hygienic manufacturing process of the water meters.

Kamstrup also has a highly automated manufacturing process and only uses materials approved for drinking water. The hygiene is being controlled by external accredited laboratories and by frequent audits.

General description

flowIQ® 4200 is a hermetically sealed water meter intended for measurement of cold water consumption in multi-unit buildings, commercial applications and industry.

flowIQ® 4200 employs the ultrasonic measurement principle, based on Kamstrup's experience since 1991, with the initial development and production of static ultrasonic meters.

One of flowIQ® 4200's many advantages is the fact that it has no wearing parts, which ensures a high and stable accuracy throughout its lifetime. flowIQ® 4200 complies with all the AWWA C715-18 and CN1044 fire service guideline for Ultrasonic Water Meters.

In the flowIQ® 4200 series a composite housing is mounted on a stainless steel meter body with coated split flanges in cast iron. The electronics are fully protected against internal and external penetration of water.

The meter is suitable for mounting in pump stations or wellheads, as it will also function in fully submerged conditions.

flowIQ® 4200 measures the water consumption electronically as a volume, using two pairs of ultrasonic signals. Through four ultrasonic transducers, an ultrasonic signal is sent with and against the flow direction. A transducer serves both as a 'speaker' when transmitting and as a 'microphone' when a signal is received. The ultrasonic signal traveling with the flow will be the first to reach the opposite transducer, while the signal running against the flow will be delayed. The time difference between the two signals can be converted into flow velocity, and thereby also into a volume. The measuring principle is a proven, long-term stable and accurate measuring principle.

In addition to volume reading, an indication of current flow and a number of other information codes are displayed. All registers are saved daily in the meter data logger (EEPROM) and are kept for 460 days. Furthermore, monthly data for the latest 36 months, hourly data for the latest 100 days and 50 info code events are saved.

flowIQ® 4200 is powered by a double D-cell internal lithium battery which can provide up to 20 years operating life depending on usage and configuration.

flowIQ® 4200 is available with a choice of two integrated data communication options:

- 912.5, 915 or 918.5 MHz – RF
- 450-470 MHz – RF
- Encoded Output

The meter is fitted with an optical eye which makes it possible to read saved consumption data and info codes, stored in the meter's data logger. Using an optical reading head, it is also possible to change the meter configuration, e.g. data packages.

flowIQ® 4200 can and must only be opened by Kamstrup A/S – or by Kamstrup instructed personnel in regard to battery replacement.

Technical data

Electrical data

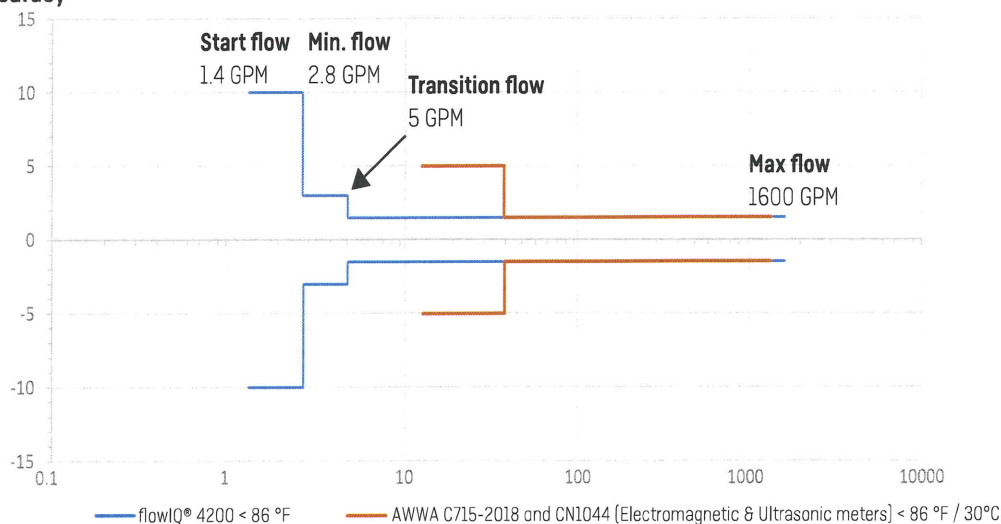
Battery 2 x D-cell batteries, 3.6V. The battery warranty does not apply at meter temperatures above $t_{BAT} > 95\text{ °F} / 35\text{ °C}$

Mechanical data

Protection class IP68-rated (waterproof/submersible)
 Mechanical environment Class 1 (Measuring Instruments Directive classification)
 Maximum operating pressure Round flange mounted, 275 PSI
 Ambient/meter temperature 35... 130 °F / 0.5... 55 °C
 Water temperature 33... 120 °F / 0.5... 50 °C
 Storage temp. empty sensor -10... 140 °F / -20... 60 °C
 Upstream/Downstream U0/D0
 Pipe Length Req. U0/D0

KWM4220 6" 1600 GPM

Accuracy



Note: At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow.

Approved meter data

Certified to NSF/ANSI 61
 Complies to part 15 of the FCC rules, ISED, AWWA C715-18 and with CN1044

Material

Wetted parts

Flow part, flanged	Stainless Steel 316L
O-ring/gasket	EPDM
Transducer pocket	PPS with fiberglass

Non-wetted parts

Split flanges	Cast iron, EN-GJS-500-7C-black-FBE coating
---------------	--

External meter parts

Meter housing	Polyphenylene sulfide (PPS) – 40 % fiberglass
Cover	Glass
Top ring (sealing)	Polycarbonate (gray)

Meter sizes

flowIQ® 4200 is available in sizes shown in the table below:

XX = Communication module ZZ = Country code

Type number	Meter size	Start flow [S]	Min. flow	Transition flow ¹⁾	Max flow	Sat. flow rate	Pressure loss SMOC ³⁾	Connection on meter	Lay length	Split flanges weight	Total weight
	Inches	[GPM]/ [L/h]	[GPM]/ [L/h]	[GPM]/ [m³/h]	[GPM]/ [m³/h]	[GPM]/ [m³/h]	[PSI]/ [bar]		[Inches]/ [mm]	[lbs]/ [Kg]	[lbs]/ [Kg]
02-E-XX-G-1-FR-8ZZ ²⁾	6"	1.4/ 318	2.8/ 635	5/ 1.136	1600/ 317.97	1960/ 445.16	2.66/ 0.183	6"	11.8"/ 299.7	31/ 14.1	60/ 27.2
02-E-XX-G-1-GA-8ZZ ²⁾	8"	1.7/ 386	4/ 908	7/ 1.590	2800/ 635.95	3920/ 890.33	3.9/ 0.886	8"	13.8"/ 350.5	42/ 19.1	86/ 39.0
02-E-XX-G-1-GJ-8ZZ	10"	2/ 454	5/ 1136	8/ 1.817	4500/ 1022.06	6300/ 1430.89	4.2/ 0.954	10"	17.7"/ 450	64/ 29.0	134/ 60.8
02-E-XX-G-1-GS-8ZZ	12"	2.3/ 522	6/ 1363	10/ 2.271	5500/ 1249.19	7700/ 1748.86	2.8/ 0.636	12"	19.7"/ 500	84/ 38.1	185/ 83.9

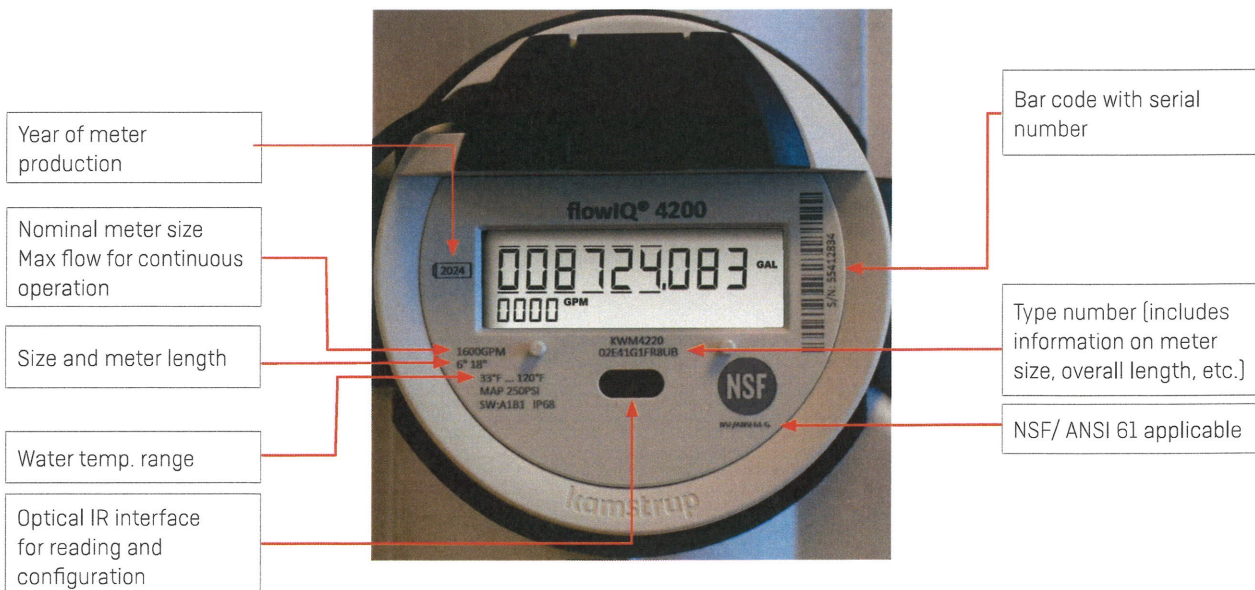
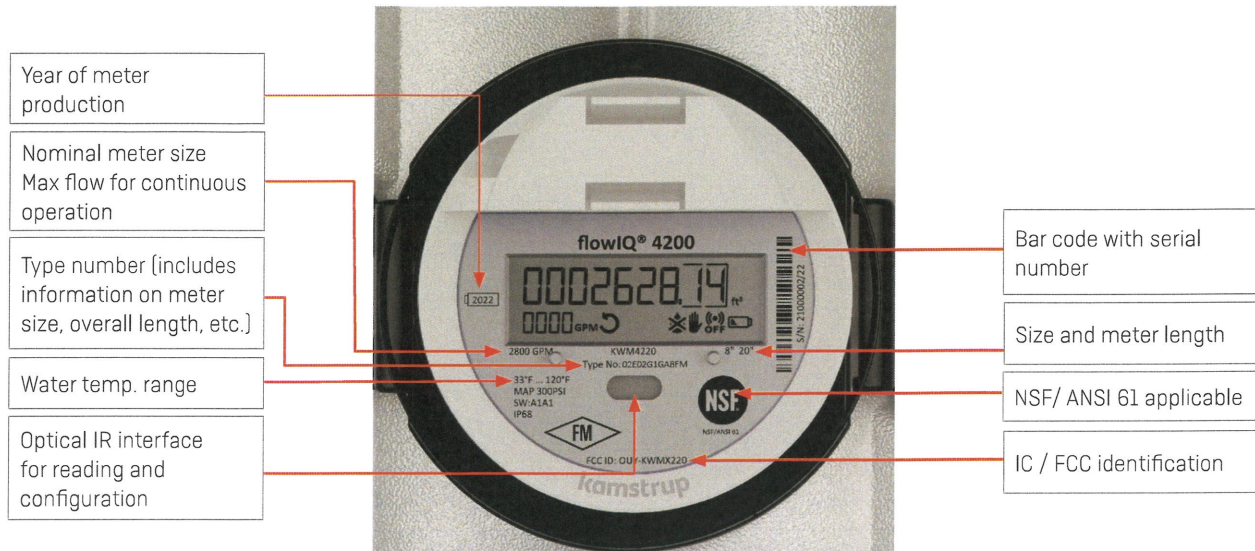
¹⁾ At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow.

²⁾ Spool piece is available for this meter size. Lay length 6" with spool piece = 18"/457mm; lay length 8" with spool piece = 20"/508mm.

³⁾ SMOC = Safety Maximum Operating Capacity (pressure).

Meter face details

Meter information in permanent laser engraved text.



Core features

Water meters placed throughout the network make it possible to gather information that can be of vital importance for an effective water supply, asset management and improved customer service.

Temperature monitoring

flowIQ® 4200 measures ambient temperatures.

Information on temperatures above or below the configured temperature in the meter will warn the utility on potential frost damages or quality issues.

The measurements can be used to monitor the installation and to give an indication of the quality of the water.

Consumption above max flow

The meter logs information on consumption above max flow. This information can be used to indicate if the meter size for a given installation is correct.

Consumption histogram

The meter tracks consumptions in different flow intervals for further analysis of the consumption patterns for the specific installation.

No consumption

If no consumption has been measured for a long period of time the meter will inform the utility, as this indicates a potential problem with the installation.

Current flow display

Besides the consumed volume, flowIQ® 4200 also shows the current flow in the display. The flow display has been designed with user experience in mind, where it can be advantageous, for example during installation, to be able to see the current consumption. In this context, it is important to stress that the metrological approval of the water meter is only related to the volume reading. Due to the meter's update time, the flow display, in case of rapidly increasing/decreasing flow, may turn out to be slower than the real flow and not a one-to-one correlation between the flow display and the volume growth.

In general, one would expect the flow display to stabilize after about half a minute of constant flow and thereafter to be consistent with volume growth.

Meter modes

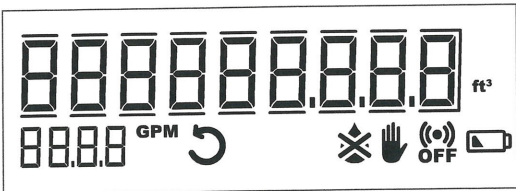
KWM4220:	Normal mode	Verification mode
Flow measurement and flow display update	1 s	0.125 s
Volume integration and volume display update	8 s	1 s

Replaceable battery

flowIQ® 4200 has two built-in D-cell lithium batteries that supply the meter. When replacing the battery, Kamstrup's Battery replacement kit no: 66-99-821 must be utilized with the relevant replacement guide.

The battery replacement kit can ONLY be ordered through Kamstrup's product service. Otherwise the warranty is void. Kamstrup's product service will also help you with the training tutorial.

Display and info codes



The large display of flowIQ® 4200 shows the totalized volume, flow rate and info.

An info code indicates a special condition in the meter. If the info code is available in the display, the related symbol is on when it has been activated. If the 'condition' is not active, the sign is off.

Info code	Condition
	Attempt of fraud. The meter is no longer valid for billing.
	The meter is dry. In this case nothing will be measured.
	The water flows through the meter in the wrong direction.
	*RADIO OFF flashes. The meter is still in transport mode with the built-in radio transmitter turned off. The transmitter turns on automatically on the first time water runs though the meter.
	*RADIO OFF lights permanently. The radio is switched off permanently. Can be activated via METERTOOL.
	The symbol appears when the expected capacity left is 6 months or less.

- Switch off automatically when the condition that activated them no longer exists.
- Disappears when the water no longer flows in the wrong direction.
- Disappears when the meter is filled with water.

*RADIO OFF is not available for Encoded Output meters

Data registers

The water meter has a permanent memory, in which the values of various data loggers are saved.

The loggers can be read via the meter's optical IR interface.

The following registers are logged:

Description	Yearly logger	Monthly logger	Daily logger	Hourly logger
Logger depth	20 years	36 months	460 days	2400 hours
Operating hours	✓	✓	✓	✓
Info codes incl. hour counter	✓	✓	✓	✓
Volume	✓	✓	✓	✓
Volume reverse	✓	✓	✓	✓
Flow max year incl. Date	✓			
Flow min. year incl. Date	✓			
Flow max month incl. Date		✓		
Flow min. month incl. Date		✓		
Flow max day incl. Timestamp			✓	
Flow min. day incl. Timestamp			✓	
Ambient temp. Max Year	✓			
Ambient temp. Min. Year	✓			
Ambient temp. Avg. Year	✓			
Ambient temp. Max Month		✓		
Ambient temp. Min. Month		✓		
Ambient temp. Avg. Month		✓		
Ambient temp. Max Day			✓	
Ambient temp. Min. Day			✓	
Ambient temp. Avg. Day			✓	

Every time the information code changes, date and info codes are logged. Thus, it is possible to data read the latest 50 changes of the information code as well as the date the change was made.

Integrated communication

The meter supports a variety of different communication options depending on meter type. All radio supported meters can be used with Kamstrup's external antenna. Transmission properties and data packages are defined in the configuration number YY-ZZZ. These can be changed with METERTOOL, MeterToolX or READyApp through the optical IR interface or with a READy Converter.*

**Depending on communication protocol.*

RF

Kamstrup RF is based on Wireless M-Bus which is a mature and proven technology for remote reading of smart meters. Wireless M-Bus provides a robust, simple and secure reading of meters and requires a low initial investment, but is flexible enough to be expanded whenever desired. Wireless M-Bus is based on an European standard (EN 13757-4) applicable to devices for reading consumption of water, electricity, or energy. The data encryption consists of a 128-bit AES counter mode encryption. Both AMR 912.5, 915 and 918.5 MHz and AMI 450-470 MHz are available.

For additional information about the Kamstrup RF communication module, please refer to FILE100003480.

Encoded Output

The Sensus Encoded Output and TouchRead are implemented based on Sensus specification UI-1203 and UI1204. Encoded Output is compatible with several 3rd party RF network systems. Kamstrup Encoded Output supports Sensus Encoded Output systems and Sensus TouchRead systems. In addition, Neptune ProRead, Neptune E-coder systems and others are supported.

For additional information about the Encoded Output communication module, please refer to FILE100003729.

State of the art meter reading system (READY)

Standardized and open communication

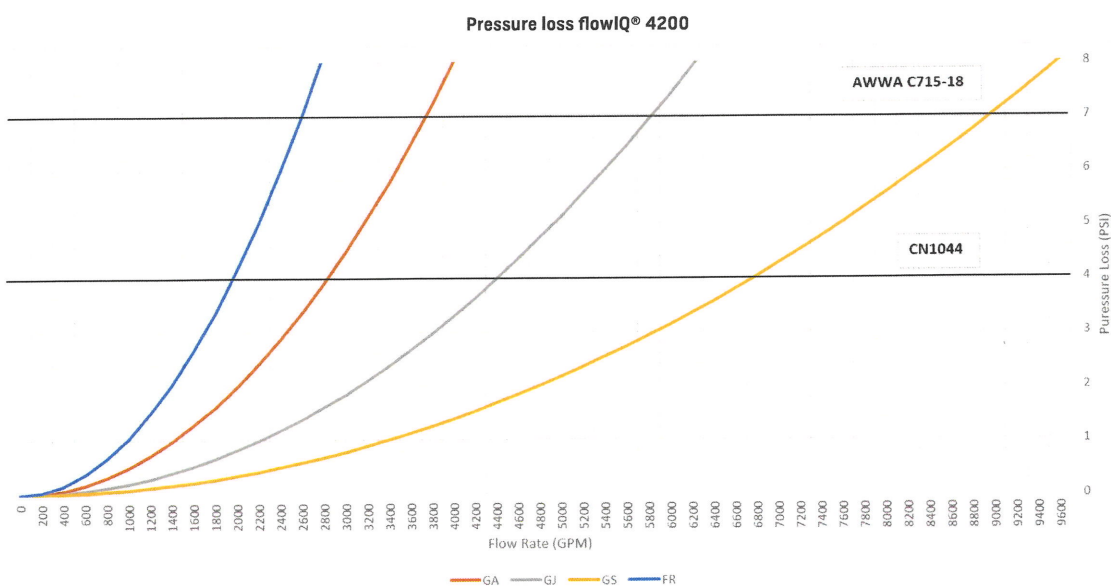
902-928 MHz band RF is an open standard, following EN13757-4:2010, which means that while the flowIQ® 4200 can be configured with or without encryption of the transmitted signal, encryption is required in the United States.

Encryption protects personal data against unauthorized monitoring. Furthermore, the encryption file provides easy access to import meter data for reading programs.

Pressure loss

According to AWWA C715-18 guideline Type II] the maximum pressure loss must not exceed 7 PSI (0.48 bar) at SMOC for water meters. According to CN1044 the maximum pressure loss must not exceed 4 PSI (0.27 bar) at SMOC for Fire Service water meters.

The following graph shows pressure loss with respect to flow rate:



The pressure loss graph is indicative, please see document no.: FILE100000198 for more information about pressure loss.

Ordering details

An order is initiated by stating the type number of the selected model of flowIQ® 4200. The type number includes information on meter type - meter version, size, lay length, service connection and time zone.

Subsequently the meter configuration, which determines customer-specific requirements such as number of digits in display etc., is selected. The configuration is completed during programming of the final meter.

Accessories are enclosed separately to be mounted by the installer.

Meter type - flowIQ® 4200

Type	□□	□	□□	□	□	□□	□	□□
Meter generation								
Second generation	02							
Mechanical design								
Stainless steel with iron split flanges		E						
Communication								
RF			02					
Encoded Output			41					
Power supply								
Double D-cell				G				
Dynamic range								
AWWA C715-18					1			
Meter size								
6" x 11.8" (1600 GPM)						FR		
8" x 13.8" (2800 GPM)						GA		
10" x 17.7" (4500 GPM)						GJ		
12" x 19.7" (5500 GPM)						GS		
Meter type								
Cold water							8	
Country code								
North America, FCC and NSF approved								UB
Canada, ISED and NSF approved								CA
FM fire service approved								FM

The features included in the type number cannot be changed once the meter has been produced.

Configuration

Config	DDD	JJ	LLL	MMMM	N	P	S	U	RR	CCC	V	T	YY	ZZZ
	□□□	□□	□□□	□□□□	□	□	□	□	□□	□□□	□	□	□□	□□□
Display views ¹⁾														
Standard	810													
GMT offset Time zone														
USA Eastern (GMT-5)		28												
USA Central (GMT-6)		24												
USA Mountain (GMT-7)		20												
USA Pacific (GMT-8)		16												
Target date (handled as order data)														
Max values averaged over time (1..120 min.)														
2 minutes			002											
Customer label														
Customer label blank				5000										
Leakage message limit														
OFF					9									
Pipe burst limit														
OFF					0									
Ambient Temperature low limit														
OFF							0							
Ambient temperature < 2 °C / 36 °F							2							
Ambient temperature < 3 °C / 37 °F							3							
Ambient temperature < 6 °C / 43 °F							6							
Ambient Temperature high limit														
OFF								0						
Ambient temperature > 35 °C / 95 °F								3						
Ambient temperature > 45 °C / 113 °F								6						
Data logger profile														
Standard (default)									04					
Standard Encoded Output									15					
To be continued on next page...														

Configuration

	DDD	JJ	LLL	MMMM	N	P	S	U	RR	CCC	V	T	YY	ZZZ
Config	□□□	□□	□□□	□□□□	□	□	□	□	□□	□□□	□	□	□□	□□□
...continued from previous page														
Display resolution (alphanumeric)														
000000000 ft³ - 0000 GPM - Billing in 1,000s										154				
0000000000 Us gal - 0000 GPM - Billing in 10s (recommended for district meters)										224				
For additional options please refer to FILE100002712														
Temperature units of measure														
Fahrenheit										1				
Celsius										0				
Encryption level														
Encryption with separately forwarded key											3			
No encryption (applicable for Encoded meters)											0			
Communication														
For communication protocols please refer to the specific module data sheets														

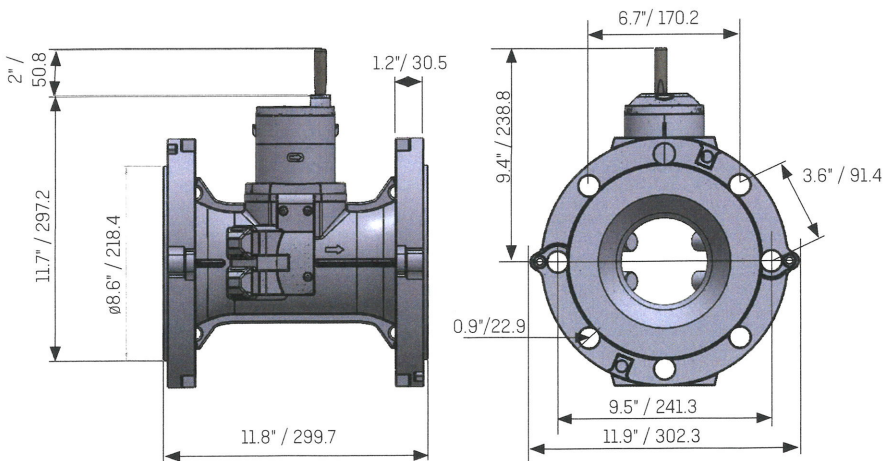
	DDD	JJ	LLL	MMMM	N	P	S	U	RR	CCC	V	T	YY	ZZZ
Unless otherwise stated in the order, Kamstrup supplies the following:	810	□□	002	5000	0	0	3	3	04	224	1	3	YY	ZZZ

Note: JJ (timezone) and target date are not predefined and has to be chosen in the ordering system.

Dimensional sketches

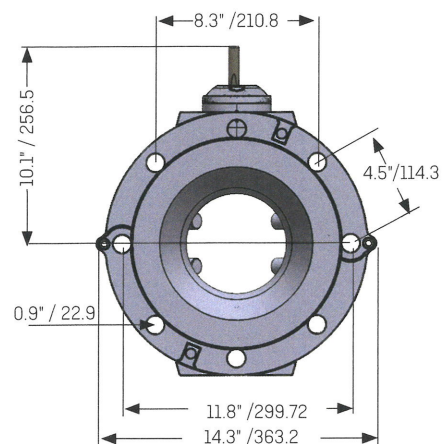
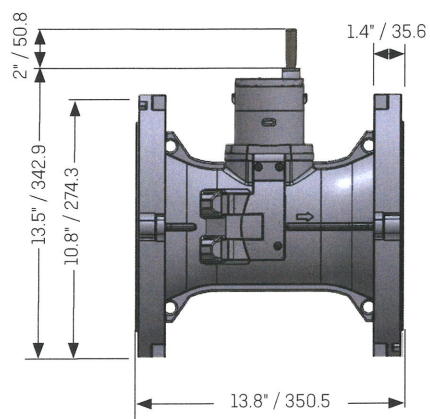
Type: FR Size: 1600 GPM 6" x 11.8"

NOTE! Same flanges for in- and outlet. / Dimensions: Inches/mm

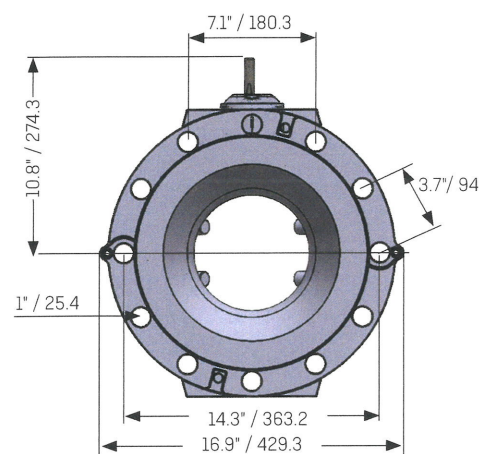
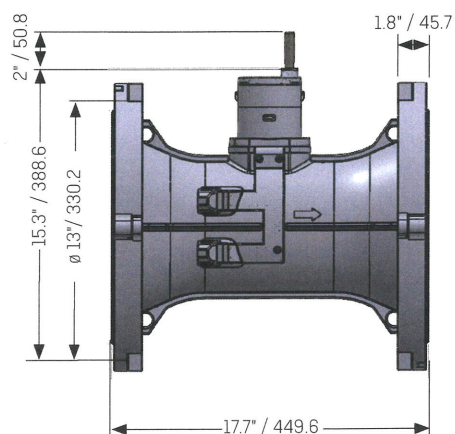


Dimensional sketches

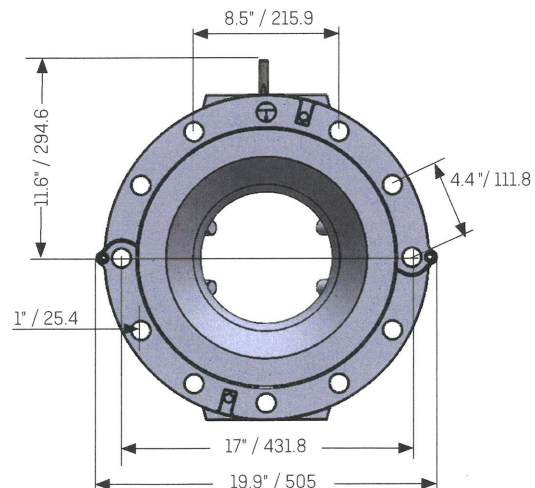
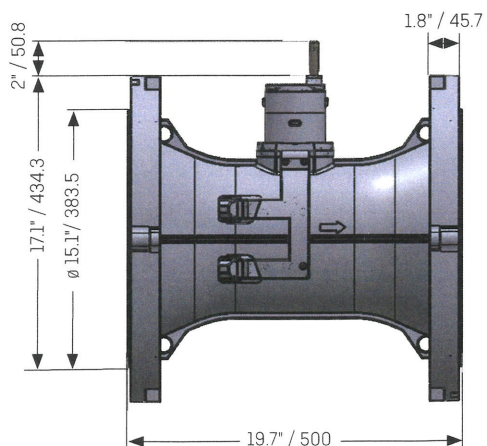
Type: GA Size: 2800 GPM 8" x 13.8"



Type: GJ Size: 4500 GPM 10" x 17.7"



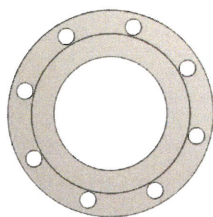
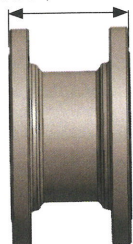
Type: GS Size: 5500 GPM 12" x 19.7"



Dimensional sketches

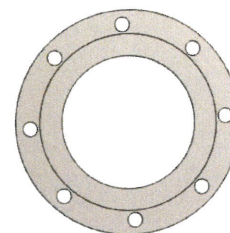
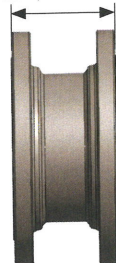
Spool piece for 6" (FR)

6.08" / 154.4 mm



Spool piece for 8" (GA)

6.12" / 155.4 mm



Accessories

See Accessories for Water Meters on kamstrup.com.

Accessories are ordered separately in CPQ (Kamstrup ordering system) and will be delivered as single parts in the packaging.

Kamstrup Water Metering, LLC

2855 Forsyth Commerce Way, Building 200

Cumming, GA 30040, USA

T: +1 (404) 835-6716

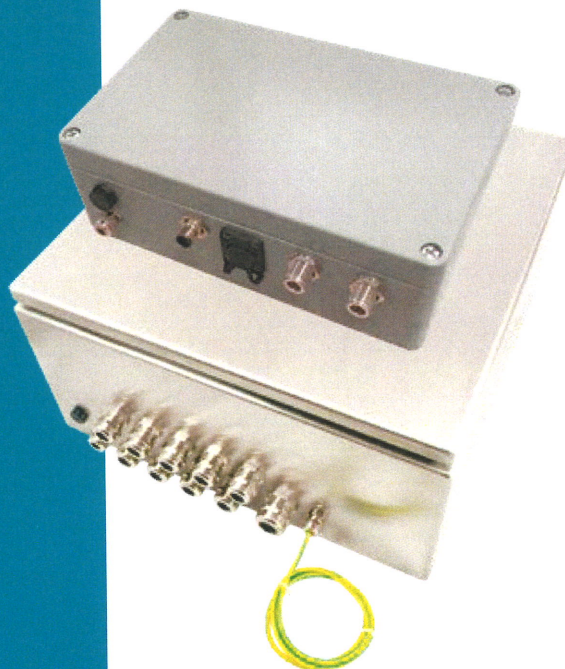
info-us@kamstrup.com

kamstrup.com

Data sheet

Kamstrup READy Collector

- Data collector for smart meter reading
- Rugged design
- 2-way intelligent network
- High level of security, individual encryption keys
- Optional Cellular connection
- Intelligent power management
- Instant event notification
- Plug-and-play installation



Contents

A READy Suite component	3
Features	3
Technical data	4
Ordering data	6
Approvals and Markings	7

A READy Suite component

The Kamstrup READy Collector is a central easy to use two way network component in your AMI network. The data is collected from the meters, stored until the planned transmission and displayed in READy Manager the Meter Data Management software. The data can be collected in a number of differing time frames up to hourly readings, and If an event occurs, this data will be transmitted immediately, independent of your data scheme.

The Kamstrup READy Collector is a rugged design that is to be used in the harshest of conditions, such as at the top of towers or elevated storage tanks, where service can be difficult. Temperature extremes and lightning protection has been thoughtfully included in the engineering of the collector unit. Other important features of the system is that no coax is necessary between the Collector unit and bottom unit, just standard off the shelf wiring components. The bottom unit has been built with industrialized components incorporating multiple surge protection systems, and power supply for use in the most challenging conditions.

Features

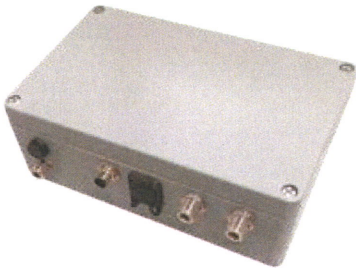
- Easiest to learn and understand system available
- No IT experience necessary
- Built in redundancy
- Fault tolerant system
- Two-way communication
- High-level security all the way
- Intelligent power management
- Instant event notification

Technical data

The Kamstrup READy Collector can be ordered as prepared for one and up to four READy Collector top units.
The system consists of a READy Collector Base unit supplying power and network for the READy Collector Top unit.
Both a READy Collector Top and a READy Collector Base are required.

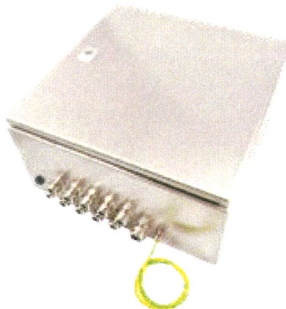
Kamstrup READy Collector Top

Dimensions (without connections)	10.2 x 6.3 x 3.6 inches 260 x 160 x 91 mm
Weight	6.23 lb 2.85 kg
Operating temperature	-22 to 149 °F (-30 to 65 °C)
Storage temperature	-40 to 185 °F (-40 to 85 °C)
Enclosure rating	NEMA 4, IP66
Power input	24 VDC
Frequency	450 - 470 MHz FCC license required
Capacity	Up to 25.000 Kamstrup Water meters
Supported meters	flowIQ® 2250 and 3250



Kamstrup READy Collector Base

Dimensions (without connections)	15.5 x 12.3 x 7.1 inches 394 x 313 x 181 mm
Weight	Dependant on configuration
Operating temperature	-22 to 149 °F (-30 to 65 °C)
Storage temperature	-40 to 185 °F (-40 to 85 °C)
Enclosure rating	NEMA 4, (IP66)
Power input	110-265 VAC 50/60 Hz
Power output	24 VDC/10 A



AMI-antenna

Length	58 inches
Frequency	440 - 470 MHz
Gain	3 dB



Antenna cables

6.5 feet (2 m)
16.4 feet (5 m)



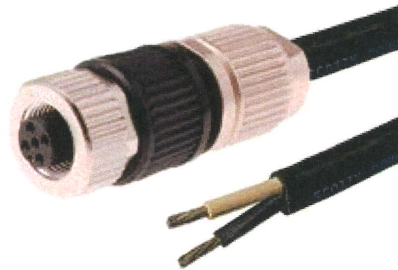
Technical data

Power cable to READY Collector Top

Length between READY Collector Top and Base:

- 6.5 feet (2 m)
- 50 feet (15 m)
- 80 feet (24.5 m)
- 150 feet (45.7 m)
- 200 feet (61 m)
- 240 feet (73 m)

Note: Must match length with the Ethernet cable.

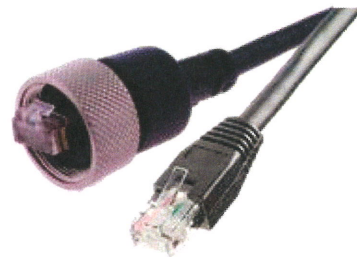


Ethernet cable to READY Collector Top

Length between READY Collector Top and Base:

- 6.5 feet (2 m)
- 50 feet (15 m)
- 80 feet (24.5 m)
- 150 feet (45.7 m)
- 200 feet (61 m)
- 240 feet (73 m)

Note: Must match length with the Power cable.



Sierra Wireless modem

For the READY Collector Base



GSM antenna

Used for the Sierra Wireless modem

Comes with a 16'4" cable



Ordering data

To order the READY Collector Base with all equipment use order number: **READYCollector**.

Order the Ready Collector Top on: **6696100000**

For individual ordering, use the following order numbers:

READY Collector Top

READY Collector Top	6696100000
---------------------	------------

READY Collector Base

READY Collector Base without modem	6696200000
------------------------------------	------------

READY Collector Base with modem	6696210000
---------------------------------	------------

Note: Antenna for modem not included, see accessories

Accessories

AMI Antenna

Note: The system requires two antennas for each READY Collector Top	6697450
--	---------

Antenna cables for READY Collector top

Cable between READY Collector Top and AMI antennas

6.5 feet (2 m)	5000 398
----------------	----------

16.4 feet (5 m)	5000 388
-----------------	----------

Note: The system requires a pair of two equally lengths

Ethernet cable to READY Collector

Length between READY Collector Top and Base

6.5 feet (2 m)	5000 476
----------------	----------

50 feet (15 m)	5000 478
----------------	----------

80 feet (24.5 m)	5000 480
------------------	----------

150 feet (45.7 m)	5000 482
-------------------	----------

200 feet (61 m)	5000 484
-----------------	----------

240 feet (73 m)	5000 486
-----------------	----------

Note: Must match length with the power cable

Power cable to READY Collector

Length between READY Collector Top and Base

6.5 feet (2 m)	5000 477
----------------	----------

50 feet (15 m)	5000 479
----------------	----------

80 feet (24.5 m)	5000 481
------------------	----------

150 feet (45.7 m)	5000 483
-------------------	----------

200 feet (61 m)	5000 485
-----------------	----------

240 feet (73 m)	5000 487
-----------------	----------

Note: Must match length with the Ethernet cable

Installation parts

Bracket kit for READY Collector Top	5915 519
-------------------------------------	----------

Antenna beam 39" (1 m)	5000 474
------------------------	----------

Bracket for Antenna beam	5000 475
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Modem

SIERRA Wireless Modem RV50X	1308101
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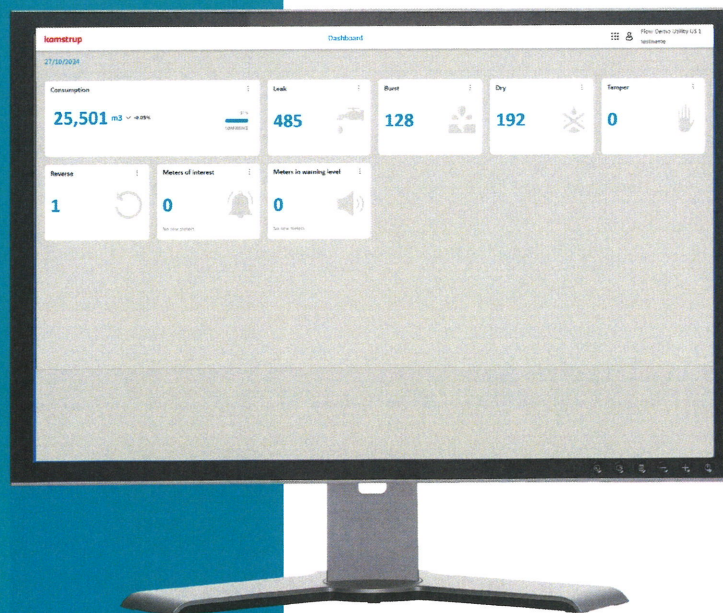
Antenna for SIERRA Wireless Modem RV50X	1653105
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Data sheet

• **READY Manager and App**

Intuitive, scalable, cloud- and app-based single platform solution for reading and managing data from intelligent water meters

- Powerful and flexible data integration and API support
- App with built-in meter installation tool
- Effective alarm management
- Near real-time notifications



REaDy Manager: Easy to use and with a multitude of functionalities

REaDy Manager is Kamstrup's software solution for managing meter and radio data, network collectors, and intelligent alarm management and notifications as well as data reporting and integrations. The solution is highly intuitive and job execution centric, allowing the user to easily view and manage system occurrences from a top-down perspective, e.g., the at a glance dashboard displays alarm summaries making it possible to dive into actions from there. REaDy Manager is hosted regionally in a Microsoft Azure cloud setup with up-to-date rigorous security protection to keep your data safe.

Highlighted features:

Data Management

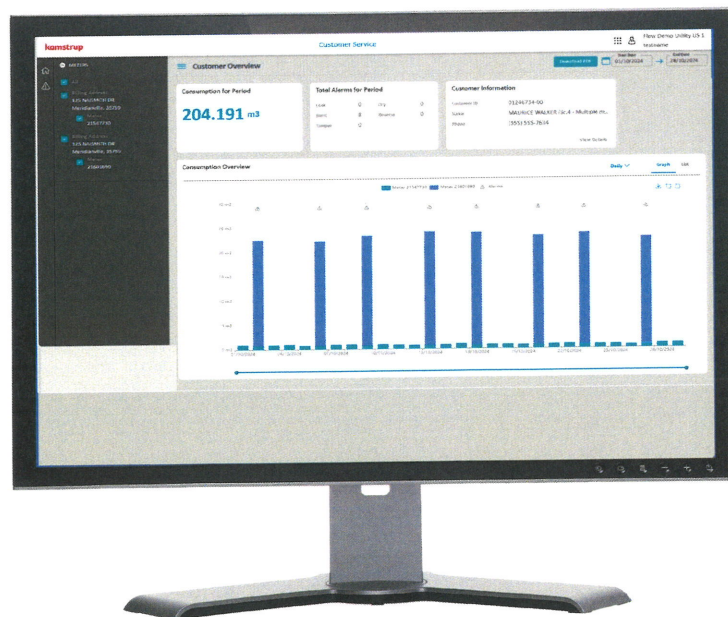
- Single software platform for AMR, AMI and NB-IoT data reading and alarm support
- High data security utilizing Kamstrup encryption keys for advance security with AES-128 bit encryption
- Alarm management for thresholds and normal vs. high priority alarms
- Data import and export functionality for customer integrations and data analysis
- Management of mobile route creation and AMR reads/alarms
- Network Collector management and notifications
- Alarm notifications via email or SMS

Data Integration

- Flexible user-defined import and export integrations with customizable CSV, fixed width, or API formats for billing or data analysis
- Automatic import and export functionality (scheduling)
- Possibility of receiving readings by email (predefined intervals)
- Advanced filtering
- API integration using REST and Webhook (SHA-256) via JSON (e.g. for consumption to do billing)

Data Visualization

- At a Glance Dashboard for a fast operational overview
- An optimized customer service module that facilitates the good consumer dialog
- Meter/Collector location on a map
- Automatic GIS coordinates based on addresses
- Alarms overview with flexible filtering options
- Display of logged data from meters
- Grouping of meters
- User defined custom columns and groups
- Analysis of users by high/low or no consumption



READY Manager: Hardware and software requirements

PC core components

Type	Minimum	Recommended
Processor	Intel Core I3 compatible processor (2.4 GHz)	Intel Core i5 compatible processor (Intel Core i5-6300U, 2.4 GHz or faster)
RAM	8 GB	16 GB

System and connectivity requirements

Microsoft Windows 10 (64 bit) compatible device (e.g., PC). The device must be fully updated via Windows Update.

Internet access and open outgoing TCP/443 is required.

Data retention

Reading data collected via network and drive-by is thinned according to the following rules:

- During the first 13 months, all readings are stored
- After 13 months, readings are compressed to 1 per day
- After 5 years, all readings are deleted

Security

Kamstrup is ISAE3000 and ISO27001:2022 certified, and works in alignment to relevant aspects of CIS18 and the IEC62443 set of standards.

READy App – mobile reading and installation tool

READy App is a mobile application that – together with a Bluetooth®-connected converter – changes your smartphone into an efficient installation, reading, data logging, and field tool. READy App is extremely intuitive and enables meter reading and data synchronization with the READy HES data management software easy.

The application supports meter installation, AMR meter reading (incl. AMI fallback reading), and exchange of meters. Additionally, it can be used together with a Bluetooth®- connected optical read-out head to read the data logger in the meter.

In reading mode, a map shows the geographical position of not yet read meters, making meter reading with READy App very simple and efficient. Visual and audible notifications guide the user on the progress of meter reading.

READy App features

- Easy and intuitive user interface
- Map and list view of meters and routes
- Graphical display of logged data from meters
- Display of alarms
- In-field synchronization of data with READy Manager
- Verification of the signal strength from meters
- Configuration of network components.

READy App recommended hardware

Supported smart phones	Supported tablets
Samsung Galaxy S23	Samsung Galaxy Tab S9
Samsung A Series A54	
HUAWEI P60	

Must be Android OS version 11.0 or newer to comply with security updates.



Hardware

Memory	Minimum 8 GB
Connection	Wi-Fi, Bluetooth 5.0
Display size and resolution	Minimum 4.3" and 1024 x 768

In addition, some features require the following:

Memory	Minimum 12 MB
Connection	Wi-Fi, Bluetooth 2.1
Display size and resolution	Minimum 4.3" and 1024 x 768

- Mobile data access (SIM card) for using map view
- Integrated camera in smartphone (for easy pairing of PC software and smartphone app).

Software

Android OS	Minimum version 11 (Security updated)
-------------------	---------------------------------------

IP access to PC software via Wi-Fi Google Play access (Google account).

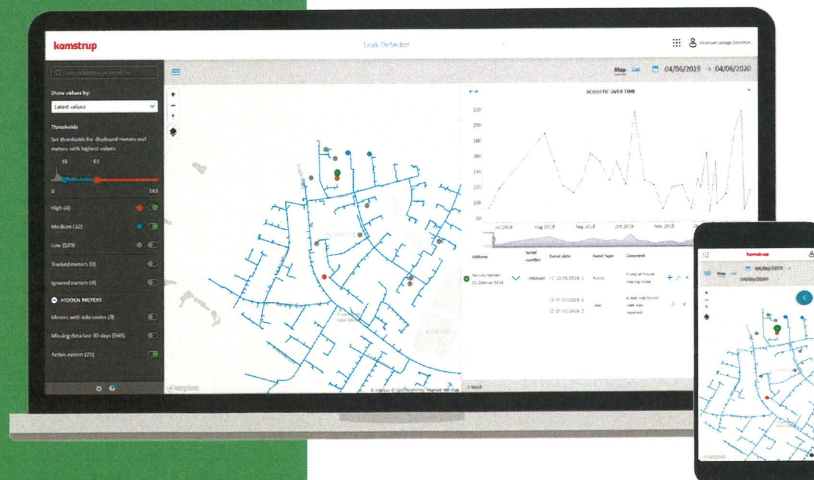
Kamstrup Water Metering, LLC

2855 Forsyth Commerce Way, Building 200
Cumming, GA 30040, USA
T: +1 (404) 835-6716
info-us@kamstrup.com
kamstrup.com

Data Sheet

Water Intelligence US

- Cloud based platform for analyzing data
- Intuitive dashboards and detailed overview of the distribution network
- Advanced algorithm processing based on meter data
- Utilizing new technologies to help utilities reduce their non-revenue water



Contents

Water Intelligence	2
Modules for Water Intelligence	3
Hardware requirements	5
Data requirements	5
System requirements	6
Other requirements	7
Data hosting	7

Water Intelligence

Non-revenue water is a well-known global problem that results in large volumes of water being lost. It is a challenge faced by many water utilities, and it is often caused by increased urbanization and ageing distribution networks, which lead to a higher demand and increased prices.

There are different approaches to find the root cause of the water loss problem and different approaches of how it can be reduced. However, the complexity is often underestimated because of the different types of water loss, each of which needs to be dealt with differently.

With our Water Intelligence platform, you will be provided with a solution that scales to meet the demands of your utility.

With a simple and intuitive web interface, Water Intelligence is tailored and designed to bring power and simplicity to the process of fighting non-revenue water.

Modules for Water Intelligence

District Analyzer

Get a complete overview of your distribution network split into districts. For each district, you will receive detailed information on inlet flow, consumption, night flow and water loss, which lets you monitor developments closely, target your efforts and act as soon as the water loss increases in a district.



Features that are included in District Analyzer consists of:

- Map view with color coded districts
- List view with meta data for districts
- Graphical representation of consumed water, supplied water and water loss
- KPI reporting based on water loss during last day, week and month
- Intuitive drawing tool for districts/sections
- Integration of pipe layer network to know where meters are in connection to the pipes
- Addition of compensated water such as pipe flushing
- Alarm system to indicate if a water balance is moving in a wrong direction.
- Advanced algorithms to monitor water balances

It can be difficult to find leaks in the system, especially those on the service pipes. With the advanced technology of Leak Detector, you get a complete overview of potential leakages in your distribution network, without searching for them yourself. With this application, you will receive 24/7 monitoring of your distribution network, which lets you target your efforts where they will be most effective.



- Map view with color coded installations
- List view with meta data for all meters
- Track meters to always have a list of important installations that needs to be tracked every day, week or month
- Add events and comments to installations with findings from the field, to easier make a decisions based on past findings
- Graphical representation of data to quickly determine if an installation is requiring immediate action
- Integration of pipe layer network to know where meters are in connection to the pipes
- Advanced filtering giving you the possibility to quickly find high-risk installations
- Build a work-order list with installations that have active events
- Correlate alarms with active alarms to determine if a leak is before or after the meter

Hardware requirements

Windows

To use the Water Intelligence website on Windows, you need the following:

- Windows 7, Windows 8, Windows 8.1, Windows 10 or later
- An Intel Pentium 4 processor or later that is SSE2-capable
- 2 GB of RAM

Linux

To use the Water Intelligence website on Linux, you need the following:

- 64-bit Ubuntu 14.04+, Debian 8+, openSUSE 13.3+ or Fedora Linux 24+
- An Intel Pentium 4 processor or later that is SSE2-capable
- 2 GB of RAM

Data requirements

District Analyzer

To make a coherent analysis of the network, it is a requirement that we can receive data from the district meter(s) in your network.

- The district meter(s) must be remotely read from an API or an FTP server
- The district meter(s) must be remotely read on a daily or hourly basis
- It must be possible to define inbound and outbound district meter(s) for each district
- The consumption meter(s) must be present in READY Manager at all times
- The consumption meter(s) must be read either through AMR or AMI

Leak Detector

To utilize the full potential of the Leak Detector module, we advise you to have the solution with daily values.

- The consumption meter(s) must be present in READY Manager at all times
- The consumption meter(s) must be read either through AMR or AMI

System requirements

Kamstrup recommends that you use the Water Intelligence website using a modern web or mobile browser to get the optimal experience. This section covers the system requirements for viewing and using the Water Intelligence website.

Browser requirements

The Water Intelligence website supports many popular web and mobile browsers. By using one of the following browsers, we can guarantee an optimal experience:

- Microsoft Internet Explorer 8 or newer (it is recommended to use the latest Microsoft Edge browser)
- Google Chrome, latest version

Recommended settings for mobile devices

With the rapid development of mobile devices, it is utterly important for us that you can have the same experience on your mobile device as you have on your desktop computer. This is why we have also optimized the Water Intelligence website to be compatible with the following mobile devices:

Android

- Devices: All android phones and tablets
- Android 5.0+

Windows

- Devices: All tablets and smartphones
- Windows 8.1+

For Android, the Water Intelligence website does not fully support the earlier versions of the WebKit browsers that were previously used in 2013 by Google. Instead, consider using the Chrome Mobile browser if you experience any problems.

Other requirements

JavaScript

Water Intelligence uses JavaScript for many functions and features. For the full experience, it is required to enable JavaScript in your browser. Consult your browser's Help section for information on how to change this setting.

Cookies

Some features and functions of the Water Intelligence website, e.g. region selection for the map, user sign-in and statistical analysis, require browser cookies to be enabled. Consult your browser's Help section for information on how to change this setting. For more information about Kamstrup's use of cookies, see <https://www.kamstrup.com/en-en/about-kamstrup/cookie-information>.

Internet connection

To use the Water Intelligence website, it is required to have an internet connection. As with any other web-based application, it is a must that we can get in contact with the data that we need in order to make the analysis reports as coherent as possible. 1 Mbps is recommended for using the Water Intelligence website.

Data hosting

All data that rests within the Water Intelligence suite is hosted on the Microsoft Azure platform on a cloud hosted environment in the United States of America to ensure optimal performance on load times.

We have also created the data center in US to ensure that data stays within US, thus complying with data regulations and laws.

Data Sheet

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REAdy Converter, Advanced

- All-in-one box solution
- Flexible converter suitcase for meter reading
- Rugged design
- Long battery lifetime
- Support of Wireless M-Bus Communication, C mode



Contents

Part of READy Suite	2
What is in the suitcase?	3
Technical data	3
Mechanical data	4
Power supply	4
Dimensions	5
Marking/standards	5
FCC Cautions	6
Canadian Compliance Statement	7
Safety information/disposal	8
Order information	8
Accessories	8

Part of READy Suite

READy Converter, Advanced is part of the READy Suite and is responsible for the automatic data collection from smart water meters equipped with Wireless M-Bus communication.

READy Suite is a unique standardized Wireless M-Bus solution for easy and fast reading of smart water meters.

The reading of the smart water meters takes place using the READy Converters which receives data and sends this to a smartphone/tablet which is responsible for storing the data. Each READy device can contain data from up to 15,000 meters.

The direct communication between the smart water meters and READy Converter is based on a comprised one-way communication protocol focusing on fast, safe and robust data communication and long battery lifetime. This comprised communication protocol is called C mode.

Due to the optimized Wireless M-Bus communication protocol, the READy Converter advanced can receive data from up to 30 smart water meters per second, making it a perfect drive-by solution.



What is in the suitcase?

READy Converter is delivered ready to use in a box containing:

- 2 x READy Converter
- 2 x whip antenna
- 2 x mobile holders
- 2 x magnetic roof antenna w/ 118" cable
- 1 x quick guide

The intuitive quick guide leads you through the installation of the PC software and the smartphone app and shows you how to connect software, app and converter unit with each other.

Technical data

READy Converter

Communication interfaces

Meter reading	Wireless M-Bus, C mode
Data transfer to smartphone/tablet	Smartphone/tablet wireless interface

Further interfaces

Charging	Micro USB
Optical interface	3 x LED for battery status
User interface	ON/OFF button

Frequencies

Wireless M-Bus	912.5 / 915 / 918.5 MHz
Wireless reader interface	2.4 – 2.5 GHz

Mechanical data

READy Converter

LxWxD (in inches)	4.7" x 2.5" x .94" (without whip antenna) 10.8" x 2.5" x .94" (with whip antenna)
Weight (incl. antenna)	5.6 oz
IP protection class	IP41
Antenna plug	SMA (reversed polarity)
Charging plug	Micro USB

Suitcase

LxWxD	14.96" x 10.43" x 6.10"
Weight	141 oz
IP protection class	IP41

Temperature range

Charging	50 °F – 113 °F
Operation	14 °F – +131 °F
Storage	32 °F – 140 °F
Humidity	< 85 %, non-condensing

Power supply

READy Converter

3.6 VDC internal, rechargeable battery

Operation time (fully charged) Up to 8 hours

Charging time (fully discharged) Up to 9 hours

Charging consumption Min. 500 mA

To function optimally, READy Converter must be fully charged at least once every half year.

Supported meter types

Kamstrup meters and modules supporting AMR communication (912.5 - 918.5 MHz).

Dimensions

READY Converter



Marking/standards

FCC ID: OUY-READYAMR3

RoHS

FCC part 15B

FCC part 15C

IC: 22376-READYAMR3

FCC Cautions

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of FCC rules.

Operation is subject to the following 2 conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

This equipment has been approved for portable operation, and unless otherwise advised in separate supplemental instructions for individual wireless transmitter(s), requires minimum 0.6" spacing be provided between antenna(s) and all person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation.

Canadian Compliance Statement

English:

This device complies with Industry Canada license-exempt RSS standard[s]. Operation is subject to the following two conditions:

- (1) This device may not cause interference, and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Complies with the Canadian ICES-003 Class B specifications.

This device complies with RSS 247 of Industry Canada. This Class B device meets all the requirements of the Canadian interference-causing equipment regulations.

This radio transmitter IC ID 22376-READYAMR4 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Whip antenna:

2.5 dBi

Roof top antenna:

5.2 dBi

Français:

Cet appareil est conforme aux normes CNR exemptes de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes:

- (1) Cet appareil ne doit pas provoquer d'interférences et
- (2) Cet appareil doit accepter toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité de l'appareil.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Cet appareil est conforme à la norme canadienne RSS 247. Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Cet émetteur radio IC ID 22376-READYAMR4 a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés cidessous, avec le gain maximal autorisé indiqué. Les types d'antenne non inclus dans cette liste et ayant un gain supérieur au gain maximum indiqué pour tout type répertorié sont strictement interdits pour l'utilisation avec cet appareil.

Antenne fouet:

2,5 dBi

Antenne de toit:

5,2 dBi

Safety information/disposal

Do not try to disassemble READy Converter.
Do not expose READy Converter to open fire.
Please return READy Converter to Kamstrup A/S if the above specifications cannot be fulfilled.

Order information

READy Converter	READyConverterI
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Accessories

Magnetic roof antenna, complete	6696 010
Mobile holder	6696 025
Whip antenna	5005 001

D | Propagation Study

Propagation Study

Jerome, AZ

Consultant/Radio Planner	DEGN
Date	October 24 th , 2025
Version	01.00
Approver	MAHS

Facts – from the questionnaire

No. of Meters: 332

Meter location: 100% indoor

Requested Performance: hourly

Extra info:

Conditions

The following situations are not included in the measured performance:

- Failure of third-party communications (e.g. GSM network or IP infrastructure)
- Defective meters or collectors
- Poor meter box/pit maintenance
- Meters or collectors that have been affected by external factors (e.g. vandalism, physical harm or enclosure)
- Installations that are not performed or not possible to perform in accordance with the installation instructions and training of the vendor.
- The sites should be established within 150 feet of the specified locations. Alternative locations need approval by Kamstrup.
- Antenna must be placed at minimum the specified height (above ground) and free from surrounding roofs and structures.

Service Area

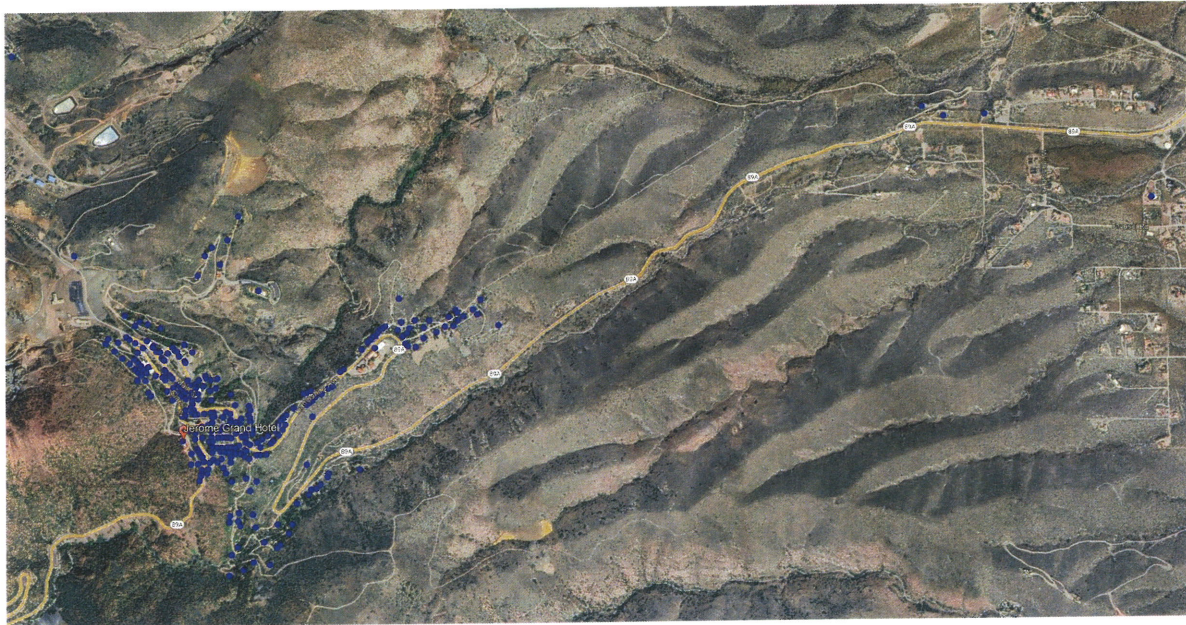


Figure 1: Service Area

Site placement & Radio cover

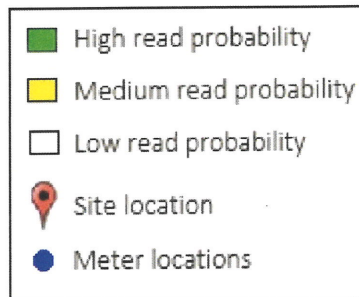
Assets Used

Asset Name	Structure Type	Address/Coordinates	Min. antenna height
Jerome Grand Hotel	New Pole	34.747629°, -112.114937°	65'

Table 1 Assets Used

Study results

When analyzing the scenarios presented in this section, refer to the legend below:



High Read Probability: Highlighted Green on the Map – very likely to receive daily reads from meter

Medium Read Probability: Highlighted Yellow on the map – likely to receive reads every other day to every seven days

Low read Probability: No highlighting shown on map – likely to not have radio signal coverage from collector

Coverage – Indoor

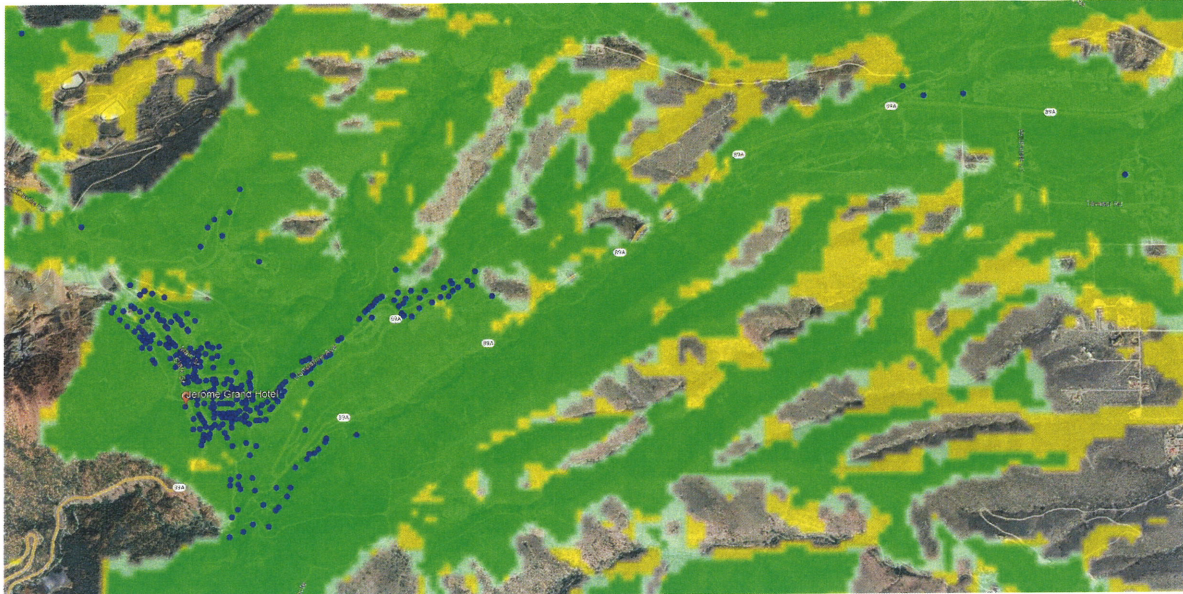


Figure 3: Indoor

Results of the propagation study

Budget with 1 collector and 1-2% external antennas for 99% coverage and 97% hourly reads for all ground floor meters with approximately 3 meters outside of coverage.

*Please note items indoors may impede signal in some cases

E | Special Conditions, Disclaimers, and Exceptions

Fortiline, Inc. d/b/a Fortiline Waterworks ("Fortiline") Exceptions to Customer Bids and Purchase Orders

These Exceptions are incorporated into and are part of Fortiline's response to Customer's request for bids or acceptance of Customer's purchase order and specifically amend or replace, as applicable, any contrary provisions in Customer's documents (the "Agreement") as follows:

1. Pricing: Due to current supply chain issues impacting pricing, the actual unit price for the Customer's project can only be determined as each product is released for shipment.
2. Payment: In no event shall Fortiline agree to payment from Customer contingent upon their receipt of payment from their customer.
3. Retainage/Offsets/Setoffs: In no event shall Fortiline agree to any retainage, offsets, and setoffs by Customer.
4. Delivery:
 - a. Deliveries of all products shall be made as agreed upon by written approval by both parties. Notwithstanding the foregoing, due to current supply chain challenges, including manufacturers' declaring force majeure, Fortiline will, use commercially reasonable efforts to meet the delivery requirements of Customer.
 - b. Notwithstanding the foregoing and regardless of other provisions in the Agreement,
 - i. Fortiline shall not be liable for any liquidated damages due to any circumstances beyond its reasonable control; and
 - ii. Fortiline may suspend deliveries if Customer's account is delinquent.
5. Lien Waiver: Fortiline shall issue a lien waiver to Customer after receipt of full payment from Customer.
6. Warranty:
 - a. Fortiline makes no warranties, express or implied, related to the products other than Fortiline warrants that products shall meet the specifications set forth in the Agreement. In addition, Fortiline shall furnish to Customer the manufacturers' certificates of warranty for the products listed in the Agreement. The warranty supplied by Fortiline shall remain in force for the full period identified by the warranty certificates.
 - b. Notwithstanding the foregoing, Fortiline's warranty obligations shall not apply to any defect which arises from an improper installation or use.
7. Patents and Copyrights:
 - a. Fortiline shall use commercially reasonable efforts to assist Customer in any claims or suits brought against Customer, its officers, agents, and/or employees based on a claim that the products sold by Fortiline pursuant to this Agreement constitute infringement of any United States Letters Patent or violate any other proprietary interest (including copyrights, trademarks and trade secrets), provided Customer notifies Fortiline in writing promptly of such claim or suit.
 - b. Notwithstanding the foregoing, Fortiline will provide Customer with the same license rights provided to Fortiline as it relates to any use of patented and copyrighted design, device, tool, material, equipment, or process to be performed under the Agreement, to the extent permitted by Fortiline's provider. Fortiline will assist Customer in any indemnification claim against the provider for patent or copyright infringement as it relates to any such patented and copyrighted design, device, tool, material, equipment, or process.
- c. Irrespective of provisions to the contrary, with respect to any patent and copyright claims, Fortiline shall have no liability unless Fortiline has actual knowledge of a potential patent and copyright claim and fails to disclose such knowledge to Customer prior to the delivery of any services which become subject to a patent and copyright claim. In addition, Fortiline shall have no duty or obligation to conduct any patent and copyright searches or legal analysis of the results of any such search, unless Customer agrees to pay for costs associated therewith.
8. Indemnification: Fortiline shall defend, indemnify and hold Customer, its agents and employees harmless from any claims or suits, actual monetary damages, costs (including reasonable attorney fees) (collectively, "Claims") to the extent caused by Fortiline's negligence or willful misconduct. Fortiline shall not, however, defend, indemnify or hold Customer, its agents and employees harmless from any Claims to the extent caused by the negligence or willful misconduct of Customer or its agents or employees.
9. Limitation of Liability:
 - a. In no event shall Fortiline be liable for any amount in excess of amounts paid by Customer under the Agreement during the twelve-month period prior to the event giving rise to such liability. Under no circumstances will Fortiline be liable for any type of incidental, special, punitive, indirect or consequential damages to Customer or any of its customers, including but not limited to, lost revenue, lost profits, replacement goods, cost of replacement goods, loss of technology, rights or services, loss of information or interruption or loss of use of service or equipment, even if advised of the possibility of such damages, arising under any theory of agreement, tort (including negligence), strict liability or otherwise.
 - b. The parties acknowledge that Fortiline set its prices and entered into this Agreement in reliance upon the limitations of liability and the disclaimers of warranties and damages set forth herein and that the same form an essential basis of the bargain between the parties. The parties agree that the limitation and exclusions of liability and disclaimer specified in this Agreement will survive and apply even if found to have failed of their essential purpose.

If any conflict exists between the Exceptions and any provision contained in the Agreement or any other Customer document, the provisions of these Exceptions shall control and prevail.

Pricing Disclaimer

1. Prices may include applicable taxes, which the utility will be responsible for payment of said taxes if they are not able to produce a state tax-exempt certificate for Fortiline, Inc. to keep on file.
2. If, after the date of this Quote/Purchase Order, any new or increased tariffs, duties, or other government-imposed costs on materials used in the work becomes effective, the Contract Price shall be adjusted to reflect the actual increased cost to the Contractor. The Contractor shall promptly notify the [Owner/Buyer] of any such cost impact. Failure to agree on a price adjustment shall not relieve the Buyer's obligation to pay the increased cost, and the Contractor shall be entitled to an extension of time if such tariffs result in material shortages or delays and/or Contractor may permanently suspend performance because of a delay or the inability of the parties to agree upon an adjusted price.
3. Fortiline's standard terms and conditions of sale apply.
4. Payment for all meters, software, hardware, electronics, training and project management is due 30 days from the receipt of invoice.
5. Washers, flange kits, and bolt and gasket kit pricing are included as separate line items based on the meter quantities given and are subject to change. Large meter pricing and ancillary items like filler flanges, spool pieces, or additional parts necessary to ensure the new meter fits in place of the old meter are not included.
6. Installation prices given are for normal installs. Installation costs are for labor only unless otherwise noted and are for replacement of existing meter with a new meter of the same laying length and connection configuration. Additional adapters such as yoke expansion fittings, tailpieces, setting modifications, spacers, meter boxes etc. are to be supplied by Fortiline at additional costing and subject to additional installation charges. Fortiline takes every reasonable precaution to avoid damage to utility piping and meter settings. The installer will inspect each meter and setting for leaks, fragile materials, etc. before proceeding. If a valve or connection nut cannot be operated with reasonable effort, Fortiline will consult the utility. A breakdown of installation costs outside of normal installs available upon request.
7. The term Force Majeure as employed herein, shall mean acts of God, strikes, lockouts, or other industrial disturbance, act of public enemy, orders of any kind of government of the United States or any civil or military authority, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, hurricanes, storms, floods, washouts, droughts, arrests, restraints of government and people, civil disturbances, explosions, breakage or accidents to machinery, pipelines, or canals, government tariffs or government interference or other causes not reasonably within control of the party claiming such inability. It is understood and agreed that the settlement of strikes and lockouts shall be entirely within the discretion of the party having the difficulty, and that the above requirements that any Force Majeure shall be remedied with all reasonable dispatch shall not require the settlements of strikes and lockouts by exceeding to the demands of the opposing party or parties when such settlement is unfavorable in the judgment of the party having the difficulty.
8. Any additional bond requirements, Performance, Payment, etc. will result in additional charges.
9. The Municipality shall be solely responsible for providing and maintaining a continuous and reliable power source to each collector location.

Submittal Disclaimer

1. We have always prided ourselves on delivering quality products, the best value, and superior customer service. What sets us apart in this industry is this dedication to service. Since Fortiline was formed in 1997, our goal has remained the same: to supply customers with the latest products by reputable manufacturers at the most competitive prices. Exceeding our customers' expectations is what we strive for in every aspect of our business.
2. As a part of our dedication to service, we point out that this submittal contains certain information provided to Fortiline by manufacturers. Fortiline makes no warranties, express or implied, related to the products other than Fortiline warrants that the products shall meet the specifications set forth in the Agreement. Fortiline also disclaims the warranties of merchantability, fitness for a particular purpose and any warranty of non-infringement. In addition, Fortiline shall furnish to Customer any manufacturers certificates of warranty for the products listed in this submittal to the extent possible. Fortiline will not be liable for any type of incidental, special, punitive, indirect or consequential damages.

F | Warranties

General terms and conditions of sale and delivery for AMI READy Collector

of Kamstrup Water Metering L.L.C.

1.0 Definitions

- 1.1. Definitions. As used herein: (a) Seller. Seller shall refer to Kamstrup Water Metering L.L.C. and shall include its agents, subsidiaries, parent company, and any affiliated entity of Seller; (b) Buyer. Buyer shall refer to the purchaser of goods sold by Seller as set forth in the particular Sales Order, and shall include all agents, subsidiaries, parent company, and any affiliated entity of Buyer; (c) Sales Order. Sales Order shall refer to the purchase order acceptance, order confirmation or invoice issued by Seller reflecting the sale of the Products to Buyer; and (d) Products. Products shall refer to the Kamstrup AMI READy Collector, and related services if any, sold by Seller to Buyer as identified in the Sales Order.

2.0 Application

- 2.1. These terms and conditions shall apply to and shall govern all Sales Orders, agreements or other documents which memorialize an agreement to purchase Products from Seller, regardless of whether such Sales Order or other document references these terms and conditions. All shipments, services, sales and quotations between Seller and Buyer are subject to these terms and conditions.

3.0 Acceptance

- 3.1. No order by Buyer shall be effective until confirmed by Seller. No effect shall be given to any terms proposed in Buyer's purchase order, proposal, sales note, acknowledgment or other document which add to, vary from, or conflict with the Sales Order or with these terms and conditions unless otherwise agreed in writing. Any such proposed terms shall be void. Except as set forth herein, the Sales Order and these terms and conditions constitute the entire agreement between Buyer and Seller with respect to the subject matter of a Sales Order. Buyer shall be deemed to have accepted and acknowledged the Sales Order and these terms and conditions unless Buyer notifies Seller in writing of its rejection of the Sales Order and/or these terms and conditions within three (3) working days of Buyer's receipt of the Sales Order.

4.0 Termination

- 4.1. Seller may terminate any Sales Order or any part thereof without liability at any time by written notice. If Seller terminates any part of a Sales Order, then Buyer shall be relieved of any obligation with regard to the terminated

portion of the Sales Order. Any sums paid by Buyer pursuant to a Sales Order or any portion of a Sales Order that has been terminated shall be refunded by Seller.

5.0 Price

- 5.1. Unless another currency is specified on the Sales Order, all monetary amounts are deemed to be expressed in US\$. For orders up to \$15,000, the price specified in the Sales Order shall not include any packaging, shipping or transportation costs or charges for any international or domestic freight, import duties or storage. For orders over \$15,000, those items are included in the price specified in the Sales Order. A handling fee in the amount of \$30.00 shall be added to all Sales Orders for less than \$150.00. Unless otherwise specified in the Sales Order, the price does not include any services related to the Products, including installation, travel, consultation, evaluation, or service. Buyer may return the packaging materials to Seller, at Buyer's own expense, and shall be credited the cost of the returned packaging if such materials are received by Seller in undamaged condition.
- 5.2. In the event the Buyer requests changes in respect of customised Products already in progress:
- 5.2.1. More than 30 working days prior to date of dispatch: Kamstrup will apply an alteration/cancellation fee of \$165 per cancellation.
- 5.2.2. 0-30 working days prior to date of dispatch: No alteration or cancellation is possible (except for return fee model – see below).

6.0 Return of goods

- 6.1. Products may be returned to Seller within 30 days from the date of delivery for any reason, subject to the following terms:
- 6.1.1. Minimum sales value of returned goods: \$385. Return will not be accepted below this amount.
- 6.1.2. Configured Products: a credit note shall be issued for the invoice amount reduced by eighty (80) percent.
- 6.1.3. Non-configured Products: a credit note shall be issued for the invoice amount reduced by forty (40) percent.
- 6.1.4. Products that Kamstrup has purchased from third parties specially for Buyer cannot be returned.

7.0 Payment

- 7.1. Buyer shall pay for Products in accordance with the terms set forth in the Sales Order, or as otherwise set forth in a

General terms and conditions for AMI READY Collector

subsequent writing executed by both Buyer and Seller. If no such terms are set forth, Seller shall issue an invoice to Buyer via email or mail to the address of Buyer set forth in the Sales Order. All invoices are payable no later than thirty (30) days after receipt by Buyer. Payment shall not be contingent upon any payment to the Buyer from any third party. Seller may, at its discretion, require pre-payment from Buyer, or may require such credit terms as it deems appropriate. Seller may change any credit terms, at any time, in its discretion. If Buyer has a delinquent account with Seller, then any subsequent purchasing orders will not be processed until Buyer's account balance becomes current. Buyer may not set off any sums owed to Seller for any reason.

8.0 Taxes

- 8.1. Buyer shall pay, in addition to any invoiced amounts, all taxes, if applicable, upon the production, sale, shipment, or use of the Products, including, without limitation, all federal, state, or local property, license, privilege, sales, use, excise or gross receipts taxes or other like taxes and tariffs. In the event that Seller is required to pay any such taxes, Buyer shall reimburse Seller on demand for such payments and any penalties or fees related thereto.

9.0 Product Descriptions, Modifications, Improvements

All representations or references on Seller's website, in sales brochures, technical data sheets and offers as to size, weight, technical specifications, price and other details of the Products are approximate and shall not be binding on Seller unless expressly incorporated in a Sales Order. Such references are not to be deemed warranties. Seller reserves the right, at any time, to alter, change, or modify the Products without notification to Buyer, provided that the alteration, change or modification does not adversely affect the price, quality or substantial function of the Products.

10.0 Delivery

- 10.1. Subject to section 5.1, delivery shall be "Delivered At Place" (DAP) (Incoterms® 2020).
- 10.2. Shipment; Installments
- 10.2.1. All dates of delivery set forth in a Sales Order are approximate and nonbinding. Seller will use commercially reasonable efforts to ship the Products on or before the estimated supply date set forth in the Sales Order.
- 10.3. Shipment; Delays
- 10.3.1. Buyer acknowledges and agrees that lead time will vary according to availability of supply, transportation delays, manufacturing problems and other conditions, and that, consequently, all delivery dates communicated by Seller are estimates. Delay in delivery of any shipment of Products shall not relieve Buyer of its obligations to accept that shipment or any other shipment. Under no circumstances shall Seller, because of late delivery or non-delivery, be liable to Buyer, its agents or any other persons for any special or consequential damages, whether based upon lost goodwill, lost profits, work stoppage, impairment of or

breach of contract, negligence or other alleged causes of losses to Buyer.

- 10.4. Seller reserves the right to deliver in installments. All such installments shall be separately invoiced and paid when due, without regard to subsequent deliveries. Delay in delivery of any installment shall not relieve Buyer of its obligation to accept remaining deliveries.

10.5. Risk of Loss

- 10.5.1. All risk of loss during shipment of the Products shall be in accordance with Incoterms® (2020) as referenced in the Sales Order. If no such Incoterm® is referenced, all shipments shall be shipped DAP (Delivered At Place, Incoterms® 2020).

11.0 Claims

- 11.1. Buyer shall inspect the Products immediately upon receipt and shall, within three (3) business days from the date of delivery, give written notice of any claim that the Products do not conform to their description as set forth in the Sales Order covering the Products or that the Products are damaged. Notations regarding such a claim shall be made on the applicable bill of lading, air waybill or delivery receipt. If Buyer does not provide such notice within the three (3) day period, the Products shall be deemed accepted by Buyer. Buyer expressly waives any rights it may have to reject or revoke acceptance of the Products after such three (3) day period. In no event, however, shall Seller be responsible for any damage or loss to Products resulting from the transportation, importation or storage of the Products.

12.0 Limited Warranty

- 12.1. Material and workmanship
- 12.2. Seller warrants that the Products shall be free from defects in Materials and Workmanship for a period (the "Warranty Period") of 24-month from date of delivery to Buyer.
- During the relevant Warranty Period, Seller shall, at its sole discretion, repair or replace any defective Products at no cost or refund the purchase price for the defective Products.
- 12.3. WARRANTY EXCLUSIONS
- ALL KAMSTRUP WARRANTIES SHALL NOT APPLY IN ANY OF THE FOLLOWING CASES: (A) PRODUCTS THAT ARE DEFECTIVE OR DAMAGED BY NEGLIGENCE OR ACCIDENT OR NATURAL DISASTERS OR EXTREME WEATHER CONDITIONS OR BY OTHER CIRCUMSTANCES BEYOND KAMSTRUP'S REASONABLE CONTROL; (B) PRODUCTS THAT HAVE BEEN IMPROPERLY STORED, COMMISSIONED, INSTALLED, USED OR MAINTAINED BY BUYER OR A THIRD PARTY, OR THAT HAVE BEEN USED OR MAINTAINED NOT IN ACCORDANCE WITH ANY INSTRUCTIONS, MANUALS, SPECIFICATIONS OR OTHER DOCUMENTATION PROVIDED BY KAMSTRUP, OR IN THE ABSENCE OF SUCH DOCUMENTATION, GENERALLY ACCEPTED INDUSTRIAL PRACTICES; (C) PRODUCTS WHICH HAVE BEEN USED IN ENVIRONMENTS WITH EXPOSURE TO ELECTROMAGNETIC PHENOMENA OR OTHER ABNORMAL ELECTRICAL INTERFERENCE, INCLUDING WITHOUT LIMITATION UNNATURAL MAGNETIC FIELDS, RADIATION OR ELECTROMAGNETIC PULSES, OR EXCESSIVE ELECTRICAL CURRENT, EXCEPT

General terms and conditions for AMI READy Collector

TO THE EXTENT PERMITTED IN THE PRODUCT SPECIFICATION; (D) PRODUCTS WHERE ANY SERIAL NUMBER OR SECURITY SEAL HAS BEEN INTERFERED WITH; (E) NORMAL WEAR AND TEAR, WHICH DOES NOT AFFECT ITS FUNCTIONALITY; (F) PRODUCTS THAT ARE EXPERIMENTAL, DEVELOPMENTAL, PROTOTYPE, OR PILOT; OR (G) PRODUCTS WHICH HAVE BEEN USED AFTER DISCOVERY OF THE DEFECT.

12.4. Product Return

12.4.1. IF, WITHIN THE APPLICABLE WARRANTY PERIOD, (I) BUYER DISCOVERS ANY DEFECTS IN MATERIALS OR WORKMANSHIP, AND (II) NOTIFIES SELLER IN WRITING OF SUCH DEFECTS, AND (III) RETURNS THE DEFECTIVE PRODUCTS TO SELLER, SELLER SHALL, AT SELLER'S SOLE DISCRETION, REPAIR OR REPLACE THE DEFECTIVE PRODUCTS, OR REFUND THE PURCHASE PRICE FOR THE DEFECTIVE PRODUCTS. NO WARRANTY CLAIMS WILL BE PROCESSED IF RECEIVED AFTER THE WARRANTY PERIOD. REJECTED PRODUCTS MAY BE RETURNED ONLY WITH SELLER'S PRIOR EXPRESS WRITTEN CONSENT AND AT BUYER'S COST AND RISK. IF PRODUCTS ARE RETURNED WITHOUT SELLER'S PRIOR CONSENT, SELLER MAY REFUSE TO ACCEPT THE RETURNED PRODUCTS AND MAY RETURN THEM TO SELLER AT BUYER'S COST AND EXPENSE.

12.5. Set-Off

12.5.1. IN NO CASE WHATSOEVER, INCLUDING JUSTIFIED WARRANTY CLAIMS, IS THE BUYER ENTITLED TO RETAIN ANY MONIES OWED TO SELLER, EXCEPT UPON THE WRITTEN CONSENT OF SELLER. FURTHER, THE WARRANTIES PROVIDED FOR HEREIN SHALL NOT APPLY IN THE EVENT BUYER HAS FAILED TO REMIT PAYMENT IN FULL FOR SUCH PRODUCTS.

12.6. WARRANTY DISCLAIMER

12.6.1. WARRANTY DISCLAIMER. THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED.

13.0 Limitation of Liability

13.1. NOTWITHSTANDING ANY OTHER PROVISION OF THESE TERMS AND CONDITIONS, THE LIABILITY OF SELLER, WHETHER BASED IN TORT, BREACH OF CONTRACT, BREACH OF WARRANTY, OR OTHERWISE, SHALL NOT EXCEED THE PRICE OF THE PRODUCTS IN QUESTION OR WITH RESPECT TO WHICH SUCH BREACH, DEFAULT, OR NEGLIGENCE IS CLAIMED. BUYER ACKNOWLEDGES THAT THE REMEDIES PROVIDED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY THIRD PARTY, IN CONTRACT, TORT OR OTHERWISE, FOR ANY LOSS OF PROFITS OR BUSINESS, LOSS OF USE OR DATA, OR FOR ANY SPECIAL, INCIDENTAL, INDIRECT, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES RELATING TO THE PRODUCTS, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING, IN THE EVENT THAT ANY CLAIM IS BROUGHT

AGAINST SELLER FOR PRODUCT LIABILITY, SELLER'S LIABILITY SHALL BE LIMITED TO A MAXIMUM OF AVAILABLE INSURANCE COVERAGE AVAILABLE FOR SUCH DAMAGE, IF ANY. ANY AMOUNT IN EXCESS THEREOF SHALL BE BORNE BY THE BUYER. SELLER SHALL NOT BE LIABLE FOR ANY DEFECT THAT WAS CAUSED BY THE PRODUCTS HAVING BEEN INTEGRATED INTO PRODUCTS OF BUYER OR THOSE OF ITS CUSTOMERS. SELLER SHALL NOT BE LIABLE IN THE EVENT THE PRODUCTS SUPPLIED WERE IMPROPERLY USED, TREATED, HANDLED, STORED OR SUPPLIED BASED ON BUYER'S INSTRUCTIONS (INCLUDING, WITHOUT LIMITATION, DESIGN DETAILS, SPECIFICATIONS, PLANS, TEMPLATES OR STORAGE AND TRANSPORT RULES).

13.2. SELLER SHALL HAVE NO LIABILITY TO BUYER IF ANY PATENT INFRINGEMENT OR CLAIM THEREOF IS BASED UPON THE USE OF THE PRODUCTS DELIVERED HEREUNDER IN CONNECTION WITH A PROCESS OR IN COMBINATION WITH EQUIPMENT, DEVICES, OR SOFTWARE NOT SUPPLIED OR APPROVED IN WRITING BY SELLER, OR USED IN A MANNER FOR WHICH THE PRODUCTS WERE NOT DESIGNED.

14.0 Indemnity

14.1. Buyer agrees to defend, indemnify and hold Seller, its officers, directors and employees, harmless from and against losses, damages, expenses, actions, attorney fees, liabilities, penalties, fines, duties as well as for any claims for injury, illness, or death of persons and damage to property arising out of, or in connection with: i) the Products after their delivery; ii) any action or inaction taken by Buyer, its employees, agents or independent contractors, with regard to the services provided with regard to the Products comprising the Sales Order; iii) arising out of or resulting from any violation by Buyer, its employees, agents, or independent contractors, of any applicable law, regulation or other mandate by a competent authority; or iv) the infringement or violation of any third party intellectual property rights which may be suffered by Seller due to the act or omission of Buyer, its employees, agents, or independent contractors.

15.0 Intellectual Property

15.1. Buyer acknowledges Seller's exclusive right, title, and interest in trademarks, logos and other markings of Seller relating to the Products, as well as in any and all manuals or documents provided by Seller relating to the Products (collectively, "Seller's Marks"), and will not at any time do or cause to be done any act or thing contesting or in any way impairing or tending to impair this right, title, and interest.

15.2. Buyer acknowledges that Seller reserves all rights and benefits afforded under federal and international intellectual property laws in all Intellectual Property relating to the Products. "Intellectual Property" means all intellectual property and/or proprietary rights, including without limitation all rights of inventorship and authorship, in inventions, patents, patent applications, and know how, for any Product, process, method, machine, manufacture, design,

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- composition of matter, or any new or useful improvement thereof, as well as all copyrights, trademark, trade dress and service mark rights and all rights in trade secrets, computer software, data and databases, and mask works.
- 15.3. Buyer is not authorized to make any changes, additions, improvements, alterations, or modifications of any sort to the Products. Whether authorized or unauthorized, any changes, additions, improvements, alterations, or modifications of any sort to the Products made by Buyer shall inure to the benefit of Seller, and Seller shall have full right, title, and interest in them.
- 15.4. The rights and obligations set forth in this Section shall survive the termination of these terms and conditions.
- 16.0 Security Interest**
- 16.1. Buyer hereby grants a security interest in the Collateral to the Seller to secure the payment and performance of the Obligations listed below. The Collateral shall consist of all Products now owned and hereafter acquired and wherever located, as defined in Article 9 of the Uniform Commercial Code as enacted in Georgia, which are Products acquired by the Buyer from Seller, and, all proceeds (cash and non-cash) and Products of the foregoing. The Obligations shall consist of: (i) all of Buyer's present and future indebtedness and obligations to Seller; (ii) all amounts owed under any modifications, additional advances, renewals, extensions or substitutions of any of the foregoing obligations; (iii) all costs associated with Seller's exercise of its rights hereunder; and (iv) any of the foregoing that may arise after the filing of a petition by or against Buyer under the Bankruptcy Code, even if the obligations do not accrue because of the automatic stay under Bankruptcy Code § 362 or otherwise. Any capitalized term used in this Section 16, and not otherwise defined in these Terms, shall have the meaning given to it in Article 9 of the Georgia Uniform Commercial Code. Buyer agrees to execute and deliver to Seller any and all documents necessary to perfect Seller's security interest, including all financing statements.
- 17.0 Cancellation for Default**
- 17.1. Seller reserves the right to cancel all or any part of any Sales Order, without liability towards Buyer, if Buyer fails to perform under any applicable provision of these terms and conditions or of any applicable Sales Order and the failure is not cured within ten (10) days after delivery of written notice to Buyer by Seller. In the event of cancellation, Seller may exercise all rights and remedies available to it hereunder and under law.
- 18.0 Remedies**
- 18.1. Seller's remedies shall be cumulative and shall include any remedies allowed by law. Seller's waiver of any breach by Buyer shall not constitute a waiver of any other breach of the same or any other provision. Acceptance of any payments shall not waive any breach. In any dispute involving moneys owed to Seller, Seller shall be entitled to all costs of collection, including reasonable attorney's fees and interest at 15% per annum or the highest rate allowed by law, whichever is greater, unless Seller agrees to a lower amount. The confiscation or detention of a shipment by any governmental authority shall not affect or diminish the liability of the Buyer to the Seller to pay all charges or other money due promptly on demand.
- 19.0 Insolvency**
- 19.1. Seller shall have the right to cancel any outstanding Sales Order or any part thereof, without any liability whatsoever in the event of (i) insolvency, or anticipated insolvency, of Buyer, (ii) commencement of any proceedings, voluntary or involuntary, in bankruptcy or insolvency by or against Buyer; or (iii) the appointment of an assignee for the benefit of creditors of Buyer or a receiver or trustee for Buyer.
- 20.0 Disputes**
- 20.1. Any controversy or claim arising out of or relating to these terms and conditions, or the breach thereof, shall be subject to the exclusive jurisdiction of the State courts of Georgia.
- 21.0 Force Majeure**
- 21.1. Seller shall not be liable for any delay in performance of its obligations and responsibilities under a Sales Order due to causes beyond its control, and without its fault or negligence, such as but not limited to war, epidemics, embargo, national emergency, insurrection or riot, acts of the public enemy, fire, flood or other natural disaster, provided that said party has taken reasonable measures to notify the other promptly in writing, of delay.
- 22.0 Governing Law**
- 22.1. These terms and conditions shall be governed by and interpreted in accordance with the laws of the State of Georgia, U.S.A., exclusive of the U.N. Convention on the International Sale of Goods.
- 23.0 Severability**
- 23.1. If any provision of a Sales Order, including these terms and conditions, shall be judged by a court of competent jurisdiction to be invalid, illegal or unenforceable in any respect, such adjudication shall not affect or modify any other provision of the Sales Order, or these terms and conditions and the effect thereof shall be confined to the provision as to which such adjudication is made.
- 24.0 Notice**
- 24.1. Any notice or other communication required or permitted by these terms and conditions must be given in writing and must be delivered by personal delivery (including personal delivery by overnight courier such as Federal Express, DHL, or similar overnight courier), first class mail (registered or certified), telecopy or e-mail (with a copy sent by personal delivery or first class mail), in each case addressed as follows, or to such other address or addresses as may be hereafter furnished by one party to the other

General terms and conditions for AMI READy Collector

party in compliance with the terms hereof. Notice will be deemed given when received or delivered to the principal business address of the relevant party.

25.0 **Miscellaneous**

25.1. Seller reserves the right to change, modify, add, or delete portions of these terms and conditions from time to time without further notice. The headings contained in these terms and conditions are included for convenience and shall not affect the language included herein.

26.0 **Entire Agreement**

26.1. Except as provided for herein, these terms and conditions, together with the Sales Order contain all of the terms and conditions governing the sale of the Products and may not be modified or amended by Buyer except by written agreement duly executed by the parties. Aside from the terms of any Sales Order, all prior agreements, representations, statements, negotiations and undertakings, whether oral or written, are superseded by these terms and conditions.

General terms and conditions of sale and delivery for Stainless Steel/PPS Meters and other Products.

for Kamstrup Water Metering L.L.C.

1.0 Definitions

- 1.1. Definitions. As used herein: (a) Seller. Seller shall refer to Kamstrup Water Metering L.L.C.; (b) Buyer. Buyer shall refer to the purchaser of goods sold by Seller as set forth in the particular Sales Order; (c) Sales Order. Sales Order shall refer to the purchase order acceptance, order confirmation or invoice issued by Seller reflecting the sale of the Products to Buyer; and (d) Products. Products shall refer to Kamstrup's flowIQ® water meters with a stainless steel or PPS housing (referred to as "Meters") and/or products other than meters (e.g. flow parts, antennas, collectors, other accessories and spare parts, referred to as "Non-Meter Products"), and related services if any, sold by Seller to Buyer as identified in the Sales Order.

2.0 Application

- 2.1. These terms and conditions shall apply to and shall govern all Sales Orders, agreements or other documents which memorialize an agreement to purchase Products from Seller, regardless of whether such Sales Order or other document references these terms and conditions. All shipments, services, sales and quotations between Seller and Buyer are subject to these terms and conditions.

3.0 Acceptance

- 3.1. No order by Buyer shall be effective until accepted or confirmed in writing by Seller. No effect shall be given to any terms proposed or referenced in Buyer's purchase order, proposal, sales note, acknowledgment or other document issued by Buyer which add to, vary from, or conflict with the Sales Order or with these terms and conditions. Any such Buyer proposed terms shall be void. Except as set forth herein, the Sales Order and these terms and conditions constitute the entire agreement between Buyer and Seller with respect to the subject matter of a Sales Order. Buyer shall be deemed to have accepted and acknowledged the Sales Order and these terms and conditions unless Buyer notifies Seller in writing of its rejection of the Sales Order and/or these terms and conditions within three (3) working days of Buyer's receipt of the Sales Order.

4.0 Termination

- 4.1. Seller may terminate any Sales Order or any part thereof without liability at any time by written notice. If Seller terminates any part of a Sales Order for convenience, then Buyer shall be relieved of any obligation with regard to the terminated portion of the Sales Order. Any sums paid by Buyer pursuant to a Sales Order or any portion of a Sales Order that has been terminated shall be refunded by Seller.

5.0 Price

- 5.1. Unless another currency is specified on the Sales Order, all monetary amounts are deemed to be expressed in US\$. For orders up to \$2000, the price specified in the Sales Order shall not include any packaging, shipping or transportation costs or charges for any international or domestic freight, import duties or storage. For orders over \$2000, packaging and transportation on a DAP (Delivery at Place) Incoterms 2020 basis are included in the price specified in the Sales Order, unless otherwise stated in the Sales Order.
- 5.2. A handling fee in the amount of \$500 shall apply to all shipments with a value of less than \$2000. Unless otherwise specified in the Sales Order, the price for Products does not include any related services, including without limitation installation, travel, consultation, evaluation, or maintenance. Buyer may return the packaging materials to Seller, at Buyer's own expense, and shall be credited the cost of the returned packaging if such materials are received by Seller in undamaged condition.
- 5.3. No Sales Order may be canceled, altered or held, in whole or in part, without Seller's prior written consent, which may be granted or denied at Seller's sole discretion and in its own interest. If approved, the following cancellation and/or alteration fee shall apply to cover Seller's costs for materials, fabrication, engineering, testing, handling, and administration. This fee is calculated as a percentage of the canceled Product's price (excluding taxes) and is applied as follows:
- 5.3.1. 50% for approved cancellation or alteration requests received 60–90 days before shipment,

General terms and conditions of sale and delivery

- 5.3.2. 75% for approved cancellation or alteration requests received 30–60 days before shipment, and
- 5.3.3. 100% for approved cancellation or alteration requests received less than 30 days before shipment.
- 5.4. Seller may revise the prices for Products and services listed in its published price list at any time, by giving 30-day notice.

6.0 Return of goods

- 6.1. No Products or parts may be returned to Seller, without Seller's prior written consent, which may be granted or denied at Seller's sole discretion and in its own interest. If approved, returns must be made within 30 days from the date of delivery, and are subject to the following conditions:
 - 6.1.1. Returned Products must have a value of at least \$385. Products valued below this amount are not eligible for return.
 - 6.1.2. Configured Meters and configured Non-Meter Products are not eligible for return.
 - 6.1.3. For approved returns of non-configured Meters and non-configured Non-Meter Products, a return fee of 50% of the invoice amount will apply. Seller will issue a credit note for 50% of the invoice amount.
 - 6.1.4. Products that Seller has purchased from third parties specifically for Buyer cannot be returned.

7.0 Payment

- 7.1. Buyer shall pay for Products in accordance with the terms set forth in the Sales Order, or as otherwise set forth in a subsequent writing executed by both Buyer and Seller. If no such terms are set forth, Seller shall issue an invoice to Buyer via email or mail to the address of Buyer set forth in the Sales Order. All invoices are payable no later than thirty (30) days after receipt by Buyer. Seller reserves the right to suspend its performance of any obligations under the Contract, including but not limited to delivery of Products, until such time as the overdue payment is made in full or security satisfactory to Seller has been provided.
- 7.2. Payment shall not be contingent upon any payment to the Buyer from any third party. Seller may, at its discretion, require pre-payment from Buyer, or may require such credit terms as it deems appropriate. Seller may change any credit terms, at any time, in its discretion. If Buyer has a delinquent account with Seller, then any subsequent purchasing orders will not be processed until Buyer's account balance becomes current. Buyer may not set off any sums owed to Seller for any reason.

8.0 Taxes

- 8.1. Buyer shall pay, in addition to any invoiced amounts, all taxes, if applicable, upon the production, sale, shipment, or use of the Products, including, without limitation, all federal, state, or local property, license, privilege, sales, use, excise or gross receipts taxes or other like taxes and tariffs. In the event that Seller is required to pay any such taxes, Buyer shall reimburse Seller on demand for such payments and any penalties or fees related thereto.

9.0 Product Descriptions, Modifications, Improvements

All representations or references on Seller's website, in sales brochures, technical data sheets and quotations as to size, weight, technical specifications, price and other details of the Products are approximate and shall not be binding on Seller unless expressly incorporated in a Sales Order. Such references are not to be deemed warranties. Seller reserves the right, at any time, to alter, change, or modify the Products without notification to Buyer, provided that the alteration, change or modification does not adversely affect the price, quality or substantial function of the Products.

10.0 Delivery

- 10.1. Subject to section 5.1, delivery shall be "Delivered At Place" (DAP) (Incoterms® 2020).
- 10.2. Shipment; Installments
 - 10.2.1. All dates of delivery set forth in a Sales Order are approximate and nonbinding. Seller will use commercially reasonable efforts to ship the Products on or before the estimated supply date set forth in the Sales Order.
- 10.3. Shipment; Delays
- 10.4. Buyer acknowledges and agrees that lead time will vary according to availability of supply, transportation delays, manufacturing problems and other conditions, and that, consequently, all delivery dates communicated by Seller are estimates.
 - 10.4.1. Delay in delivery of any shipment or installment of Products shall not discharge Buyer of its obligations to accept that or any other shipment or installment. Under no circumstances shall Seller, because of late delivery or non-delivery, be liable to Buyer, its agents or any other persons for any special or consequential damages, whether based upon lost goodwill, lost profits, work stoppage, impairment of or breach of contract, negligence or other alleged causes of losses to Buyer.
- 10.5. Seller reserves the right to deliver in installments. All such installments shall be separately invoiced and paid when due, without regard to subsequent deliveries. Delay in delivery of any installment shall not relieve Buyer of its obligation to accept remaining deliveries.
- 10.6. Risk of Loss
 - 10.6.1. All risk of loss during shipment of the Products shall be in accordance with Incoterms® (2020) as referenced in the Sales Order. If no such Incoterm® is referenced, all shipments shall be shipped DAP (Delivered At Place, Incoterms® 2020).

11.0 Claims

- 11.1. Buyer shall inspect the Products immediately upon receipt and shall, within three (3) business days from the date of delivery, give written notice of any claim that the Products do not conform to their description as set forth in the Sales Order covering the Products or that the Products are damaged. Notations regarding such a claim shall be made on the applicable bill of lading, air waybill or delivery receipt. If Buyer does not provide such notice within the three (3) day period, the Products shall be deemed

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accepted by Buyer. Buyer expressly waives any rights it may have to reject or revoke acceptance of the Products after such three (3) day period. In no event, however, shall Seller be responsible for any damage or loss to Products resulting from the transportation, importation or storage of the Products.

12.0 Limited Warranty

12.1. Material and workmanship

Seller warrants that the Products shall be free from defects in Materials and Workmanship during the Warranty Period defined as follows:

For Meters:

(a) of 5/8"x1/2" – 1", the Warranty Period is twenty (20) years from the date of delivery to Buyer; and
(b) of 1 1/2" and larger, the Warranty Period is ten (10) years from date of delivery to Buyer.

For Non-Meter Products:

the Warranty Period is twenty-four (24) months from the date of deliver to Buyer.

12.2. During the relevant Warranty Period, Seller shall, at its sole discretion, repair or replace any defective Products at no cost or refund the purchase price for the defective Products.

12.3. The following sections 12.4 (Accuracy) and 12.5 (Battery Life) apply only with respect to Meters.

12.4. Accuracy

12.4.1. Seller warrants that the Meters (except for those covered in 12.4.2 below) will perform to the accuracy as defined in AWWA C715-18 (section 4.2.8 thereto) and to AWWA M6 manual (chapter 5, Testing new meters and table 5-3 defining test rates in accordance with AWWA C715).

12.4.2. In case the Meters do not comply with the warranties set out in 12.4.1 or 12.4.2, Seller shall, at its sole discretion, repair or replace any defective Meter at no cost or refund the purchase price of such defective Meters: (a) for year one (1) through year twenty (20) following the date of delivery for the defective Meters in the size range of 5/8" x 1/2" – 1"; and (b) for year one (1) through year ten (10) following the date of delivery for the defective Meters in the size range of 1 1/2" and larger.

12.4.3. Any Meter accuracy claims shall be subject to verification - initiated by Seller - through testing by a NIST Traceable laboratories or ISO 17025 accredited laboratories.

12.5. Battery Life

12.5.1. Based on operation of the Meters with either communication via the three wire encoded output or with communication via the embedded radio at an ambient operating temperature not higher than stated in the technical documentation, the warranty on the system battery in the Meter shall be for a period of (a) for 5/8" x 1/2" – 1" Products, twenty (20) years from date of delivery to Buyer, (b) for 1 1/2" and larger Meters, ten (10) years from date of delivery to Buyer and (c) for 6" – and larger Meters, ten (10) years from date of delivery to Buyer.

For (a) and (b) of section 12.5.1 Seller shall, at its sole discretion, (i) replace any Meters that contain defective batteries at no cost for year one (1) through year ten (10) following the date of delivery or (ii) refund the purchase price for the Meters that contain defective batteries. For (c) of section 12.5.1, Seller shall, at its sole discretion, during year one (1) through year ten (10) following the date of delivery, at no cost (i) replace any defective batteries or (ii) replace any Meter that contain defective batteries.

For 5/8"x1/2" – 1" Meter only, during the period commencing with year eleven (11) through year twenty (20) following the date of delivery to Buyer, Seller shall, at its sole discretion, replace any Meters that contain defective batteries at a cost to Buyer equal to the price set out in the price list valid at the time of return of the Meter, minus the discount according to the following schedule:

Year	Discount	Year	Discount
11	75%	16	40%
12	75%	17	30%
13	50%	18	20%
14	50%	19	10%
15	50%	20	10%

The warranty related to battery life for the Meters is void if the Meters at any time have been configured into priority mode.

12.6. WARRANTY EXCLUSIONS

12.6.1. ALL SELLER WARRANTIES SHALL NOT APPLY IN ANY OF THE FOLLOWING CASES: (A) PRODUCTS THAT ARE DEFECTIVE OR DAMAGED BY NEGLIGENCE OR ACCIDENT OR NATURAL DISASTERS OR EXTREME WEATHER CONDITIONS OR BY OTHER CIRCUMSTANCES BEYOND SELLER'S REASONABLE CONTROL; (B) PRODUCTS THAT HAVE BEEN IMPROPERLY STORED, COMMISSIONED, INSTALLED, USED, REPAIRED, MAINTAINED OR ALTERED BY BUYER OR A THIRD PARTY, OR THAT HAVE BEEN USED OR MAINTAINED NOT IN ACCORDANCE WITH ANY INSTRUCTIONS, MANUALS, SPECIFICATIONS OR OTHER DOCUMENTATION PROVIDED BY SELLER, OR IN THE ABSENCE OF SUCH DOCUMENTATION, GENERALLY ACCEPTED INDUSTRIAL PRACTICE); (C) PRODUCTS WHICH HAVE BEEN (I) USED WITH WATER WHICH CONTAINS LEVELS OF FOREIGN MATTER, INCLUDING WITHOUT LIMITATION, DIRT, SAND, MINERALS, DEBRIS, DEPOSITS, BIOFILMS, CHEMICAL SUBSTANCES OR OTHER IMPURITIES WHICH INTERFERE WITH OR DEGRADE THE PRODUCT OR IS NOT IN ACCORDANCE WITH MINIMUM POTABLE WATER STANDARDS REQUIRED BY APPLICABLE LAW, PROVIDED THAT, WITH RESPECT ONLY TO RECLAIMED WATER METERS: (x) USING SUCH METERS WITH WATER THAT IS NOT POTABLE WILL NOT INVALIDATE THE WARRANTY, EXCEPT WHERE POOR WATER QUALITY

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ADVERSELY AFFECTS THE ACCURACY OF THE METERING EQUIPMENT TO AN UNUSUAL DEGREE, IN WHICH CASE THE WARRANTY WILL BE INVALIDATED; AND (y) USING SUCH METERS WITH WATER THAT CONTAINS FOREIGN MATTER WILL NOT INVALIDATE THE WARRANTY UNLESS SELLER DETERMINES (AT ITS SOLE DISCRETION) THAT SUCH FOREIGN MATTER HAS DAMAGED THE METERS OR AFFECTED THEIR ACCURACY TO A DEGREE WHICH IS OUTSIDE THE ACCURACY LEVELS STATED IN SECTION 12.4; OR (II) USED IN OTHER UNUSUAL ENVIRONMENTAL CONDITIONS OR IN ENVIRONMENTS WITH EXPOSURE TO ELECTROMAGNETIC PHENOMENA OR OTHER ABNORMAL ELECTRICAL INTERFERENCE, INCLUDING WITHOUT LIMITATION UNNATURAL MAGNETIC FIELDS, RADIATION OR ELECTROMAGNETIC PULSES, OR EXCESSIVE ELECTRICAL CURRENT, EXCEPT TO THE EXTENT PERMITTED IN THE PRODUCT SPECIFICATION; (D) PRODUCTS WHERE ANY SERIAL NUMBER OR SECURITY SEAL HAS BEEN INTERFERED WITH; (E) NORMAL WEAR AND TEAR; (F) PRODUCTS THAT ARE EXPERIMENTAL, DEVELOPMENTAL, PROTOTYPE, OR PILOT; OR (G) THE DISCONTINUATION OF NETWORK/COMMUNICATION SERVICES (INCLUDING BY LOSS OF CONCESSION, DISSOLUTION, BANKRUPTCY, OR CESSATION OF BUSINESS), OR THE PHASE-OUT OR REPLACEMENT OF THE NETWORKS AND/OR COMMUNICATION TECHNOLOGIES SUPPORTING THE PRODUCTS IF SUCH CHANGES RENDER THE PRODUCT UNABLE TO FUNCTION AS REPRESENTED AT THE TIME OF ENTERING INTO THE CONTRACT; (H) ANY DISRUPTION OR DEGRADATION IN PRODUCT PERFORMANCE DUE TO VULNERABILITIES OR DEFICIENCIES IN NETWORKS TO WHICH THE PRODUCT IS CONNECTED; OR ANY DEFECT OR DAMAGE ARISING DIRECTLY OR INDIRECTLY FROM CYBER-RELATED INCIDENTS, INCLUDING WITHOUT LIMITATION HACKING, MALWARE, VIRUSES, RANSOMWARE, DATA BREACHES, UNAUTHORIZED ACCESS, OR ANY OTHER FORM OF CYBER-ATTACK OR DIGITAL INTERFERENCE (COLLECTIVELY, "CYBER-RELATED INCIDENTS"); OR (I) PRODUCTS WHICH HAVE BEEN USED AFTER DISCOVERY OF THE DEFECT.

12.7. Product Return

12.7.1. IF, WITHIN THE APPLICABLE WARRANTY PERIOD, (I) BUYER DISCOVERS ANY DEFECTS IN MATERIALS OR WORKMANSHIP, AND (II) NOTIFIES SELLER IN WRITING OF SUCH DEFECTS, AND (III) RETURNS THE DEFECTIVE PRODUCTS TO SELLER, SELLER SHALL, AT SELLER'S SOLE DISCRETION, REPAIR OR REPLACE THE DEFECTIVE PRODUCTS, OR REFUND THE PURCHASE PRICE FOR THE DEFECTIVE PRODUCTS. NO WARRANTY CLAIMS WILL BE PROCESSED IF RECEIVED AFTER THE WARRANTY PERIOD. REJECTED PRODUCTS MAY BE RETURNED ONLY WITH SELLER'S PRIOR EXPRESS WRITTEN CONSENT AND AT BUYER'S COST AND RISK. IF PRODUCTS ARE RETURNED WITHOUT SELLER'S PRIOR CONSENT, SELLER MAY REFUSE TO ACCEPT THE RETURNED PRODUCTS AND MAY RETURN THEM TO SELLER AT BUYER'S COST AND EXPENSE.

12.8. Set-Off

12.8.1. IN NO CASE WHATSOEVER, INCLUDING JUSTIFIED WARRANTY CLAIMS, IS THE BUYER ENTITLED TO RETAIN ANY MONIES OWED TO SELLER, EXCEPT UPON THE WRITTEN CONSENT OF SELLER. FURTHER, THE WARRANTIES PROVIDED FOR HEREIN SHALL NOT APPLY IN THE EVENT BUYER HAS FAILED TO REMIT PAYMENT IN FULL FOR SUCH PRODUCTS.

12.9. WARRANTY DISCLAIMER

12.9.1. WARRANTY DISCLAIMER. THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED.

13.0 Limitation of Liability

13.1. NOTWITHSTANDING ANY OTHER PROVISION OF THESE TERMS AND CONDITIONS, THE LIABILITY OF SELLER, WHETHER BASED IN TORT, BREACH OF CONTRACT, BREACH OF WARRANTY, OR OTHERWISE, SHALL NOT EXCEED THE PRICE OF THE PRODUCTS IN QUESTION OR WITH RESPECT TO WHICH SUCH BREACH, DEFAULT, OR NEGLIGENCE IS CLAIMED. BUYER ACKNOWLEDGES THAT THE REMEDIES PROVIDED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY THIRD PARTY, IN CONTRACT, TORT OR OTHERWISE, FOR ANY LOSS OF PROFITS OR BUSINESS, OPERATING LOSS, LOSS OF USE OR DATA, LOSS OF TIME, LOSS OF GOODWILL, LOSSES INCURRED UNDER CONTRACTS WITH THIRD PARTIES, OR FOR ANY SPECIAL, INCIDENTAL, INDIRECT, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES RELATING TO THE PRODUCTS OR ARISING OUT OF BREACH OF CONTRACT, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING, IN THE EVENT THAT ANY CLAIM IS BROUGHT AGAINST SELLER FOR PRODUCT LIABILITY, SELLER'S LIABILITY SHALL BE LIMITED TO A MAXIMUM OF AVAILABLE INSURANCE COVERAGE AVAILABLE FOR SUCH DAMAGE, IF ANY. ANY AMOUNT IN EXCESS THEREOF SHALL BE BORNE BY THE BUYER. SELLER SHALL NOT BE LIABLE FOR ANY DEFECT THAT WAS CAUSED BY THE PRODUCTS HAVING BEEN INTEGRATED INTO PRODUCTS OF BUYER OR THOSE OF ITS CUSTOMERS. SELLER SHALL NOT BE LIABLE IN THE EVENT THE PRODUCTS SUPPLIED WERE IMPROPERLY USED, TREATED, HANDLED, STORED OR SUPPLIED BASED ON BUYER'S INSTRUCTIONS (INCLUDING, WITHOUT LIMITATION, DESIGN DETAILS, SPECIFICATIONS, PLANS, TEMPLATES OR STORAGE AND TRANSPORT RULES).

13.2. SELLER SHALL HAVE NO LIABILITY TO BUYER IF ANY PATENT INFRINGEMENT OR CLAIM THEREOF IS BASED UPON THE USE OF THE PRODUCTS DELIVERED HEREUNDER IN CONNECTION WITH A PROCESS OR IN COMBINATION WITH EQUIPMENT, DEVICES, OR SOFTWARE NOT SUPPLIED OR APPROVED IN WRITING BY SELLER, OR USED IN A MANNER FOR WHICH THE PRODUCTS WERE NOT DESIGNED.

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14.0 Indemnity

14.1. Buyer agrees to defend, indemnify and hold Seller, its officers, directors and employees, harmless from and against losses, damages, expenses, actions, attorney fees, liabilities, penalties, fines, duties as well as for any claims for injury, illness, or death of persons and damage to property arising out of, or in connection with: i) the Products after their delivery; ii) any action or inaction taken by Buyer, its employees, agents or independent contractors, with regard to the services provided with regard to the Products comprising the Sales Order; iii) arising out of or resulting from any violation by Buyer, its employees, agents, or independent contractors, of any applicable law, regulation or other mandate by a competent authority; or iv) the infringement or violation of any third party intellectual property rights which may be suffered by Seller due to the act or omission of Buyer, its employees, agents, or independent contractors.

15.0 Intellectual Property

15.1. Buyer acknowledges Seller's exclusive right, title, and interest in trademarks, logos and other markings of Seller relating to the Products, as well as in any and all manuals or documents provided by Seller relating to the Products (collectively, "Seller's Marks"), and will not at any time do or cause to be done any act or thing contesting or in any way impairing or tending to impair this right, title, and interest.

15.2. Buyer acknowledges that Seller reserves all rights and benefits afforded under federal and international intellectual property laws in all Intellectual Property relating to the Products. "Intellectual Property" means all intellectual property and/or proprietary rights, including without limitation all rights of inventorship and authorship, in inventions, patents, patent applications, and know how, for any Product, process, method, machine, manufacture, design, composition of matter, or any new or useful improvement thereof, as well as all copyrights, trademark, trade dress and service mark rights and all rights in trade secrets, computer software, data and databases, and mask works; in each case whether registered or unregistered, existing now or in the future worldwide.

15.3. Buyer is not authorized to disassemble, decompile, or reverse engineer the Products; or make any changes, additions, improvements, alterations, or modifications of any sort to the Products. Whether authorized or unauthorized, any changes, additions, improvements, alterations, or modifications of any sort to the Products made by Buyer shall inure to the benefit of Seller, and Seller shall have full right, title, and interest in them.

15.4. If Buyer establishes or acquires by operation of law or otherwise any rights to the Intellectual Property Rights, or any part thereof, it hereby transfers and assigns such rights, to the extent transferable, to Seller (or to another member of the Kamstrup Group, as directed by Seller) free of charge. For non-transferable rights, Buyer grants

Seller an exclusive, irrevocable, royalty-free, worldwide license to use, exploit, and sublicense such rights.

15.5. The rights and obligations set forth in this Section shall survive the termination of these terms and conditions.

16.0 Security Interest

16.1. Buyer hereby grants a security interest in the Collateral to the Seller to secure the payment and performance of the Obligations listed below. The Collateral shall consist of all Products now owned and hereafter acquired and wherever located, as defined in Article 9 of the Uniform Commercial Code as enacted in Georgia, which are Products acquired by the Buyer from Seller, and, all proceeds (cash and non-cash) and Products of the foregoing. The Obligations shall consist of: (i) all of Buyer's present and future indebtedness and obligations to Seller; (ii) all amounts owed under any modifications, additional advances, renewals, extensions or substitutions of any of the foregoing obligations; (iii) all costs associated with Seller's exercise of its rights hereunder; and (iv) any of the foregoing that may arise after the filing of a petition by or against Buyer under the Bankruptcy Code, even if the obligations do not accrue because of the automatic stay under Bankruptcy Code § 362 or otherwise. Any capitalized term used in this Section 16, and not otherwise defined in these Terms, shall have the meaning given to it in Article 9 of the Georgia Uniform Commercial Code. Buyer agrees to execute and deliver to Seller any and all documents necessary to perfect Seller's security interest, including all financing statements.

17.0 Cancellation for Default

17.1. Seller reserves the right to cancel all or any part of any Sales Order, without liability towards Buyer, if Buyer fails to perform under any applicable provision of these terms and conditions or of any applicable Sales Order, including a payment default, and the failure is not cured within ten (10) days after delivery of written notice to Buyer by Seller. In the event of cancellation, Seller may exercise all rights and remedies available to it hereunder and under law.

18.0 Remedies

18.1. Seller's remedies shall be cumulative and shall include any remedies allowed by law. Seller's waiver of any breach by Buyer shall not constitute a waiver of any other breach of the same or any other provision. Acceptance of any payments shall not waive any breach. In any dispute involving moneys owed to Seller, Seller shall be entitled to all costs of collection, including reasonable attorney's fees and interest at 15% per annum or the highest rate allowed by law, whichever is greater, unless Seller agrees to a lower amount. The confiscation or detention of a shipment by any governmental authority shall not affect or diminish the liability of the Buyer to the Seller to pay all charges or other money due promptly on demand.

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19.0 Insolvency

- 19.1. Seller shall have the right to cancel any outstanding Sales Order or any part thereof, without any liability whatsoever in the event of (i) insolvency, or anticipated insolvency, of Buyer, (ii) commencement of any proceedings, voluntary or involuntary, in bankruptcy or insolvency by or against Buyer; or (iii) the appointment of an assignee for the benefit of creditors of Buyer or a receiver or trustee for Buyer.

20.0 Product Compliance

- 20.1. Products are configured for use in the State or Country in which they are delivered by Seller and according to specific requirements. If used elsewhere, they may not comply with applicable laws and regulations and may not function according to specifications. Seller assumes no liability for non-compliance and performance issues arising from such use. Buyer agrees to indemnify and hold Seller and its affiliates harmless from all liabilities, claims, damages, losses, penalties, costs and expenses (including reasonable attorney fees and legal costs) resulting from or arising in connection with any non-compliance with applicable laws, regulations, and standards required for the sale and use of the Products in a State other than where they are delivered.

21.0 Force Majeure

- 21.1. Seller shall not be liable for any delay in performance of its obligations and responsibilities under a Sales Order due to causes beyond its control, and without its fault or negligence, such as but not limited to war, epidemics, embargo, national emergency, insurrection or riot, acts of the public enemy, fire, flood or other natural disaster, industrial disputes (including local strikes and/or lockouts), Cyber-Related Incidents, breakdowns or disruptions in telecommunication, discontinuation of network/communication services (including by loss of concession, dissolution, bankruptcy, or cease of business), or sunsets or replacements of networks and/or communication technologies, import or export restrictions, acts of government, inability to source components affecting the industry as a whole, as well as any similar conditions affecting a sub-supplier's performance vis-à-vis Seller; provided that, said party has taken reasonable measures to notify the other promptly in writing, of delay.
- If the effects of the relevant event continue for a period of more than three consecutive months, then either party shall be entitled to terminate the Contract.
- 21.2. If, between the date of Seller's quotation (or, if none, order confirmation) and the date of Product delivery, there is an aggregate increase exceeding 10% in the Seller's cost of any raw material, component, transportation, duties, taxes, or any combination thereof (relative to the cost at the time of the quotation or, if none, order confirmation), or if changes in laws, regulations, tariffs, or other governmental requirements result in such an increase, the full amount of such

increased costs shall be automatically and unilaterally added to the price payable by Buyer. Seller reserves the right to adjust the price accordingly or require Buyer to pay these additional costs as a condition for delivery. Any delay in payment of such costs entitles Seller to suspend or cancel delivery without liability. Buyer assumes all risks associated with such cost increases, and Seller has no obligation to absorb or mitigate these costs. This provision is without prejudice to Section 8.1.

22.0 Export Control and Sanctions

- 22.1. Products may be subject to export controls and the delivery is conditional upon obtaining required export authorizations. Buyer shall at all times comply with all applicable U.S. Anti-boycott, sanctions and export control laws, rules and regulations for any subsequent export, re-export or transfer.
- 22.2. Each Party represents and warrants that it is not subject to any sanctions or trade restrictions imposed by the United States (US), the United Nations (UN), or the European Union (EU), any other applicable jurisdiction. If either Party becomes subject to such sanctions or restrictions, preventing performance of the Contract, the other Party shall have the right to terminate the Sales Order immediately upon written notice, without liability or obligation for such termination.
- 22.3. Buyer shall not knowingly transfer, export, or re-export Products, directly or indirectly, to any country, entity or individual that is under sanctions or embargo by the UN, EU, US or any other relevant international regulatory body. Buyer shall conduct appropriate screening and due diligence to ensure compliance with these restrictions.
- 22.4. In compliance with U.S. export controls and sanctions laws, Buyer shall not sell, export, or re-export, directly or indirectly, any Products to the Russian Federation or Belarus, or for use therein. Buyer shall use best efforts to prevent any third parties downstream, including resellers distributors, or end-users, from circumventing these restrictions and shall maintain adequate monitoring mechanisms to ensure compliance.
- 22.5. Seller may suspend or terminate any agreement with Buyer without notice and claim damages if Buyer breaches any representation or undertaking under clauses 21.1–21.4.

23.0 Governing Law and Dispute Resolution

- 23.1. The Contract shall be governed by and interpreted in accordance with the laws of the State of Georgia, U.S.A., exclusive of the U.N. Convention on the International Sale of Goods.
- 23.2. Any controversy or claim arising out of or relating to the Contract, or the breach thereof, shall be subject to the exclusive jurisdiction of the State courts of Georgia.

24.0 Severability

- 24.1. If any provision of a Sales Order, including these terms and conditions, shall be judged by a court of competent jurisdiction to be invalid, illegal or unenforceable in any

General terms and conditions of sale and delivery

respect, such adjudication shall not affect or modify any other provision of the Sales Order, or these terms and conditions and the effect thereof shall be confined to the provision as to which such adjudication is made.

25.0 Notice

- 25.1. Any notice or other communication required or permitted by these terms and conditions must be given in writing and must be delivered by personal delivery (including personal delivery by overnight courier such as Federal Express, DHL, or similar overnight courier), first class mail (registered or certified), telecopy or e-mail (with a copy sent by personal delivery or first class mail), in each case addressed as follows, or to such other address or addresses as may be hereafter furnished by one party to the other party in compliance with the terms hereof. Notice will be deemed given when received or delivered to the principal business address of the relevant party.

26.0 Miscellaneous

- 26.1. Seller reserves the right to change, modify, add, or delete portions of these terms and conditions from time to time without further notice. The headings contained in these terms and conditions are included for convenience and shall not affect the language included herein.

27.0 Entire Agreement

- 27.1. Except as provided for herein, these terms and conditions, together with the Sales Order contain all of the terms and conditions governing the sale of the Products and may not be modified or amended by Buyer except by written agreement duly executed by the parties. Aside from the terms of any Sales Order, all prior agreements, representations, statements, negotiations and undertakings, whether oral or written, are superseded by these terms and conditions.

General Licensing Conditions for software

Delivered by Kamstrup A/S – CVR No. 21 24 81 18

1.0 General terms and conditions

1.1. These General Licensing Conditions (the “Conditions”) shall apply to any agreement (the “Agreement”) between Kamstrup A/S (“Kamstrup”) and Licensee for the use of the Software and relevant documentation (“Documentation”) provided by Kamstrup. Licensee terms of any form shall not apply unless specifically agreed.

2.0 Software License

2.1. Kamstrup hereby grants to Licensee the non-exclusive and non-transferable right to use the Software as defined in the Agreement. No further license or right to use is granted under these Conditions and any intellectual property contained in the Software shall remain Kamstrup’s property at all times. “Use” shall mean (i) install, store, read, run and display the Software for the purpose of executing the program instructions for data processing and (ii) make the required temporary copies necessary for this process. The license remains in force until the Licensee stops using the Software or until termination of the Agreement in accordance with these Conditions. The Parties agree that these Conditions shall also apply (i) to any Software and/or Documentation updates, upgrades, error corrections, enhancements etc. and (ii) to customer-specific adaptations and extensions to standard Software.

2.2. Conditions of Use:

2.2.1. The Software and Documentation shall only be Used in accordance with these Conditions and Licensee shall comply with the instructions given by Kamstrup (including, but not limited to the Documentation).

2.2.2. The license is limited to the number of metering points, number of users and/or use at the agreed server locations as agreed between the Parties.

2.2.3. Unless otherwise agreed in writing, Licensee is entitled to use the Software and the Documentation for its own business only and shall not use or permit the use by, on behalf of or for the benefit of any third party or company in any way whatsoever, either free of charge or against payment. Subject to Kamstrup’s written consent, Licensee shall be entitled to have the Software installed at an operations provider (outsourcing) provided that the provider is located in the country where the Software will be used and the provider’s use of the Software is strictly limited to

the purpose of Licensee being able to use the Software in accordance with these Conditions.

2.2.4. Licensee may make one backup copy of the Software solely for replacing the original Software if the original Software is not in working order. The copy may not be used at the same time as the original version of the Software. Otherwise, Licensee is not entitled to sub-license, copy, translate, alter, modify, produce derived forms of, disassemble, reverse engineer, decompile or use the Software and the Documentation other than in the contractually agreed manner or to the extent permitted by mandatory law, and shall prevent others from carrying out such prohibited activities.

2.2.5. All security matters of the IT-system on which the Software is used are Licensee’s sole and exclusive responsibility. Licensee shall implement the necessary measures such as a disaster recovery and business continuity plans and shall make regular backup copies of all stored data (including all reported measurement data, databases, computer records and computer programs) in accordance with best computing practices.

2.2.6. Use of the Software outside the documented hardware, peripheral and software configurations is permitted (i) if the configured hardware and software infrastructure is temporarily inoperable; in this case the license is temporarily and without additional charge extended to suitable replacement infrastructure until the failure is remedied, provided the replacement infrastructure is under Licensee’s direct control, or (ii) if the Software is used with suitable replacement infrastructure if the use of the infrastructure according to the original configurations is permanently discontinued. The use of the Software with temporary or permanent replacement infrastructure shall be at Licensee’s sole risk and responsibility. Licensee shall track and keep records on the use, copying, storage and disclosure of the Software.

2.2.7. Kamstrup, or an independent auditor appointed by Kamstrup, may inspect any systems, records, documents or copies at Licensee’s premises in order to audit the compliance with the obligations related to the Software. The costs for such inspection shall be borne by Kamstrup, unless it is determined that Licensee is in breach of its obligations under the Agreement, in which case Licensee shall

General Licensing Conditions for software

bear the costs. Licensee shall make available such records to Kamstrup or its representative for this purpose.

3.0 Fee

- 3.1. The License Fee covers the delivery and use of the Software and the Documentation by Licensee in accordance with these Conditions. The License Fee is an one-time fee.
- 3.2. The Maintenance Fee covers the delivery and use of Patches and Releases. The Maintenance Fee is a yearly fee.

4.0 Invoicing and Terms of Payment

- 4.1. The agreed Fees shall be payable in advance, not in arrears. Except where otherwise agreed, all fees, costs and prices shall be payable in EUR. They shall be exclusive of any value added tax or other taxes and costs that may apply under the relevant jurisdiction. All payments shall be made in full without any deduction or set off to the bank account specified by Kamstrup no later than thirty (30) days after receipt of the invoice. If any sum payable under the Agreement is not timely paid in full, Kamstrup may charge interest at a rate of two (2) per cent per commenced month as from the due date (or, if lower, the maximum rate permitted by law) and/or, in case of failure to make payments within twenty (20) days after the due date, terminate the Agreement. Without limiting Kamstrup's right for late or non-payment, the User may not Use any new Data from the due date of the payment until to the date of actual payment.

5.0 Warranty

- 5.1. Kamstrup warrants that, if no maintenance or hosting contract has been concluded between the Parties for the software, for a period of 90 days, or otherwise, for the period of the maintenance or hosting contract, the Software materially fulfils the functionality as set out in the Documentation. Kamstrup further warrants the compatibility / interoperability of the Software with the tested and documented Kamstrup hardware; however, Kamstrup does not warrant that the Software will operate in all configurations and applications which Licensee may select for use.
- 5.2. In the event of a defect (i.e. breach of the warranty defined in this clause) during the warranty period, Licensee shall notify Kamstrup without undue delay in writing and provide all information to Kamstrup to analyse the defect. Kamstrup shall, within a reasonable time after receipt of the timely and substantiated defect notification, at its discretion (i) rectify such a defect by providing an adequate workaround solution, (ii) supply a replacement solution substantially fulfilling the same functional specifications or (iii) reimburse the reduction in value of the non-complying parts of the delivery.
- 5.3. This warranty is subject to Licensee's compliance with its obligations under the Agreement and does not apply to (i) third party software (ii) copies of the Software not originating from Kamstrup or not produced in the contractually agreed manner, (iii) Software used or installed on

other than approved hardware and software configuration, (iv) Software that was subjected to improper or negligent installation or use or that suffered an accident for which Kamstrup is not responsible, (v) Software modified, extended or combined with other programs by Licensee or a third party without previous written approval, or (vi) Software that was subjected to treatment not conforming with environment, energy supply or operational limitation requirements specified in the Documentation or (vii) defects resulting from interfacing to third party systems.

5.4. THE WARRANTIES AND REMEDIES STATED IN THIS CLAUSE SHALL BE LICENSEE'S SOLE AND EXCLUSIVE WARRANTIES AND REMEDIES IN CASE OF SOFTWARE DEFECTS OR DEFAULTS; ALL WARRANTIES AT LAW ARE EXCLUDED.

6.0 Intellectual Property Rights

- 6.1. All rights, title and legal claims, including but not limited to copyright, trademarks and other intellectual property rights relating to the Software, Documentation and other deliveries made available hereunder to Licensee (including intellectual property rights to customer specific adaptations of standard Software, even if funded by Licensee), with the exception of the rights expressly granted in the Agreement, remain in their entirety the ownership of Kamstrup, its licensors or suppliers.
- 6.2. Kamstrup warrants that, to the best of its knowledge, the Software does not infringe third party intellectual property rights in a way prohibiting the use in the country where the Software is licensed for use.
- 6.3. In case the Software infringes third party intellectual property rights that Kamstrup should have been aware of, Kamstrup shall indemnify Licensee for all reasonable costs and fees, provided that Licensee (a) immediately notifies Kamstrup of any claim, (b) allows Kamstrup to conduct any proceedings or accept any settlement with the third party and (c) assists Kamstrup in defending such claims if required.
- 6.4. If the Software infringes third party intellectual property rights, Kamstrup shall, at its own cost and at its sole discretion, either (i) modify the Software and Documentation so that it no longer infringes the respective third party intellectual property right, (ii) supply to Licensee a replacement solution essentially fulfilling the same functional specifications, (iii) obtain at its own cost the authorization for Licensee to use the respective third party intellectual property right or (iv) reimburse to Licensee the reduction in value of the infringing parts of the Software or Documentation.
- 6.5. Kamstrup's warranty under this Clause does not apply for any infringement of third party intellectual property rights caused by implementing Licensee's specifications, or for any use or modification by Licensee which is not in accordance with the Documentation or Kamstrup's instructions.
- 6.6. THE WARRANTIES AND REMEDIES STATED HEREIN SHALL BE LICENSEE'S SOLE AND EXCLUSIVE WARRANTIES AND REMEDIES IN CASE OF INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

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7.0 Liability

- 7.1. Notwithstanding any other provision in the Agreement
- 7.1.1. Kamstrup's aggregate liability under or in connection with the Agreement shall be limited to 50 % of the License Fee or (if applicable) the Maintenance Fee payable for the 12 month period in which any claim arises.
- 7.1.2. Kamstrup shall not be liable, whether by way of indemnity, breach of statutory duty, in contract or in tort (including negligence) or under any other legal theory for any operating loss, loss of profits or revenues, loss of production, loss of contract, cost of capital or for any financial or economic loss, loss of data or any indirect, incidental or consequential damage whatsoever.
- 7.1.3. The remedies set out in the Agreement are Licensee's sole and exclusive remedies for any claim arising out of or in connection with the Agreement.
- 7.1.4. The limitations of liability shall not apply in case of gross negligence or wilful misconduct.

8.0 Termination

- 8.1. Each Party may terminate the Agreement by written notice with immediate effect if (i) the other Party materially fails to perform or comply with the Agreement or the applicable laws relating to the subject matter of the Agreement and fails to cure such default within a period of 30 days or (ii) the other Party goes into involuntary dissolution or bankruptcy or has a receiver appointed. Kamstrup may also terminate the Agreement with immediate effect in case of a non-authorized transfer or assignment of the Software, Documentation, the Agreement or parts thereof by Licensee, or, if Licensee merges with, has substantially all assets or stock acquired by a third party or acquires substantially all assets or stock of a third party which is in direct competition with Kamstrup.
- 8.2. Upon termination of the Agreement, Licensee shall immediately and permanently discontinue the use of and delete on its IT system the Software and Documentation and shall return the Software and Documentation (including any modification, electronic and other copies and recordings thereof) to Kamstrup without delay. For avoidance of doubt, there shall be no refund of any element of the License Fee, Maintenance Fee or other fees by reason of termination.

9.0 Miscellaneous

- 9.1. End of Life
- 9.1.1. Kamstrup may, at its discretion, decide to cease to support Software. Kamstrup will provide the Licensee with at least 90 days' written notice of the last date of commercial availability of the affected product (the "End of Sale Date"). Kamstrup will continue to support such products for a period of 3 years after the End of Sale Date, on the terms of Kamstrup's software support agreement. Kamstrup will have no obligation to continue support of such products after such 3 year period has expired.
- 9.2. Delivery and Acceptance
- 9.2.1. Kamstrup shall deliver (transmit, hand over or otherwise make available) one (1) copy of the Software in object

code/machine-readable form on the appropriate media, the required license keys and one (1) set of the Documentation. Third party software and Documentation shall be delivered in the form and number as delivered by the third party supplier. In case a hosting contract is in place, the Software will be installed on a Kamstrup server and Licensee will be provided adequate access.

9.3. Confidentiality

- 9.3.1. All documents, information and data, whatever the medium, form or content, that Licensee receives from Kamstrup during the performance of the Agreement (i) shall be treated as confidential, (ii) shall not be transmitted or disclosed to third parties without Kamstrup's prior written consent. Licensee shall ensure that its employees and subcontractors receive such confidential information on a need-to-know basis only and comply with the confidentiality obligations as set out in this clause. This confidentiality obligation shall survive expiry or termination of the Agreement.

The confidentiality obligation does not apply to documents, information and data that (i) is generally available from public sources or in the public domain through no fault of Licensee, (ii) was received from a third party without breach of a nondisclosure obligation, (iii) is required to be disclosed by law subject to Licensee's obligation to notify Kamstrup of such disclosure in a timely manner; or (iv) approved for disclosure with Kamstrup's prior written consent.

9.4. Amendments

- 9.4.1. Modifications and amendments to the Agreement shall only be valid when made in writing and signed by authorized representatives of both Parties. This procedure may only be waived in writing.

9.5. Assignment

- 9.5.1. Licensee shall not assign, sub-license, lease or otherwise transfer, share or commercialize, whether in whole or in part, the Software and Documentation or any rights or obligations under the Agreement without the prior written consent of Kamstrup. Any breach of this obligation shall constitute a material breach and entitle Kamstrup to terminate the Agreement with immediate effect.

9.6. Force Majeure

- 9.6.1. Force Majeure shall be defined as an occurrence resulting from any cause beyond a Party's reasonable control, including blackouts, power failures, inclement weather, fire, explosions, natural disasters, epidemics, strikes, work stoppages, labour slow-downs, industrial disputes, sabotage, destruction of production facilities, riots or civil disturbances, acts of government or governmental agencies, including changes in laws or regulations that materially and adversely impact the Party, its suppliers or licensors or any virus, worm or other harmful computer program. The affected Party shall not be considered to be in breach of the Agreement during the Force Majeure event and its consequences. The affected Party shall inform the other Party in writing as soon as practicable after the Force Majeure event has occurred and provide information on

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the consequences of such Force Majeure event. Payment obligations shall never be impaired by Force Majeure.

9.7. Severability

- 9.7.1. Should any provision of the Agreement be invalid or unenforceable, the remaining provisions shall not be affected thereby and the invalid or unenforceable provision shall be substituted by a valid and enforceable provision reflecting as closely as possible the Parties' original intent and commercial effect.

9.8. Contractual Documents

- 9.8.1. In the event that the Agreement and the documents mentioned herein contain contradictory provisions, and provided that circumstances do not indicate otherwise, the provisions shall apply in the order as follows: 1. The Agreement; 2. Appendices to the Agreement.

9.9. Entire Agreement

- 9.9.1. The Agreement (with its Appendices) shall be the entire agreement between the Parties in respect of the subject matter hereof and shall supersede any prior agreement, whether in writing or any other form.

10.0 Applicable Law and Dispute Resolution

- 10.1. The parties shall seek to settle any dispute arising out of or in connection with the Agreement, including disputes relating to the existence or validity of the Agreement, through mediation administered by the Danish Institute of Arbitration in accordance with its rules on mediation in force at the time the request for mediation was submitted. The mediation shall take place in Aarhus, Denmark.
- 10.2. If the mediation has not resulted in a settlement within 45 days of the request for mediation having been submitted by either party, then the dispute shall be settled by arbitration administered by the Danish Institute of Arbitration in accordance with the rules of arbitration procedure adopted by the Danish Institute of Arbitration and in force at the time when such proceedings are commenced. The arbitration shall take place in Aarhus, Denmark.
- 10.3. The laws of Denmark, excluding any choice of law rules, shall govern the Agreement and the settlement of disputes. The United Nations Convention on Contracts for the International Sale of Goods shall not apply.