



SIENNA MX1

Meter Interface Unit

Product Overview

BrightCity Sienna MX1 Meter Interface Unit (MIU) is an end point device designed to enable wireless network connectivity for unconnected water meters, converting them to smart wireless water meters through simple plug-and-play.

With wireless network connectivity enabled, it automatically and accurately collects, stores, and transmits meter readings to a Water Advanced Metering Infrastructure (AMI) field network.

When integrated with BrightCity Meter Data Management System (MDMS), Sienna MX1 empowers water utility operations to precisely manage water distribution and operations network.

It also provides water utilities a low-cost alternative to avoid expensive “rip-and-replace” projects and gain the full spectrum of Water AMI benefits, from field to consumer.

Product Benefits



RETROFIT BROWNFIELD METERS

Transforms brownfield water meters into smart communicating meters easily, eliminating the need for expensive meter change-outs and saves utilities costs in meters and installation labor.



AUTOMATE WATER METER READINGS

Plug-and-play for automated readings and secured data transmissions, enhancing operational efficiency and resources.



ACCURATE READS FOR PRECISE DATA

Automated data reads every 15 minutes and storage of up to 90 days.



LOWERED TOTAL COST OF OWNERSHIP

Access low connectivity fees, minimal maintenance and up to 20-years battery life.

Product Features

SUPPORTS A WIDE RANGE OF WATER METERS

Fully compatible with leading water meter brands such as Badger, Kamstrup, Xylem, Diehl, Muller System, Invensys, Neptune, and Pulse.

AMI & AMR SOLUTION

Fixed area network communication and walk-by/drive-by capabilities in a single unit.

FLEXIBLE IN-FIELD INSTALLATION

Designed for easy deployment, suitable for both pit and wall mounted set-up.

REMOTE FIRMWARE UPGRADES

Supports remote Over-The Air (OTA) firmware updates for easy maintenance and management.

METER STANDARDS COMPATIBLE

Supports multiple meter standards such as UI1203, ARB VI, ARB VII, and Pulse.

20-YEARS BATTERY LIFE

Long-lasting battery for in-field deployment up to 20 years at 15-minutes reading interval and transmission once a day.

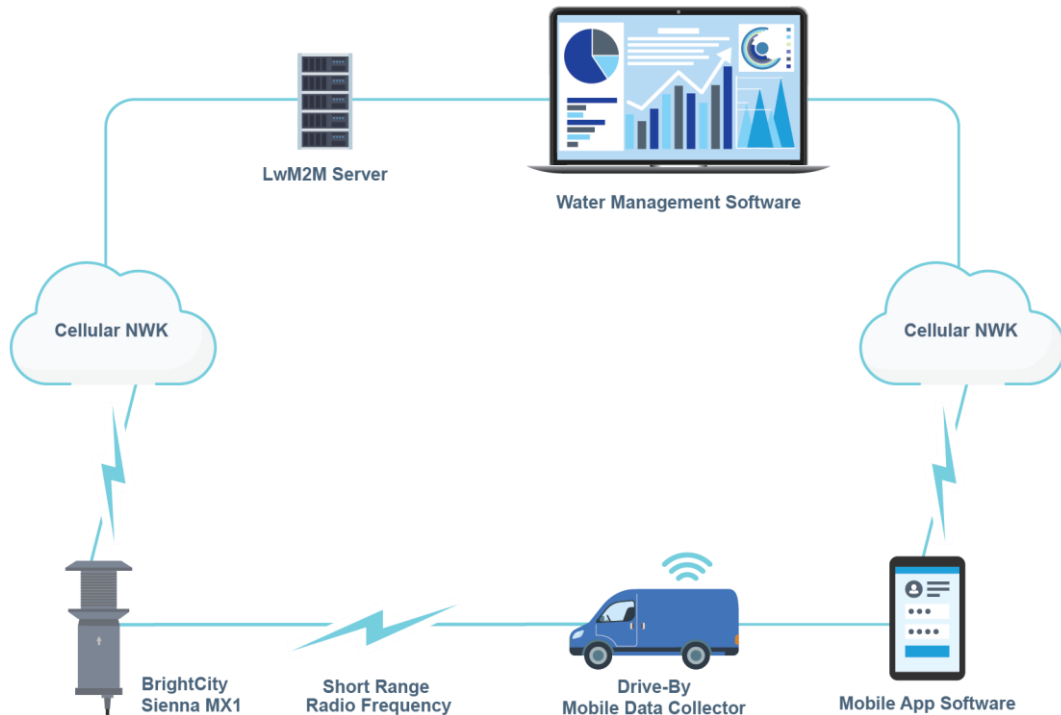
WIDE APPLICATION AREAS

Add-on sensors enable monitoring for every application, from water pressure and sewage level to water leakages and water quality.

ROBUST AND DURABLE

IP68 rated to withstand harsh pit, outdoor and sewage environments.

How It Works



Communication Links

TWO-WAY WIRELESS COMMUNICATION

Supports Cellular NB-IoT/LTE-M two-way wireless communication for remote reading by the application server.

SMART AUTOMATIC TRANSMISSION

Sienna MX1 switches automatically between fixed cellular communication mode and drive-by mode.

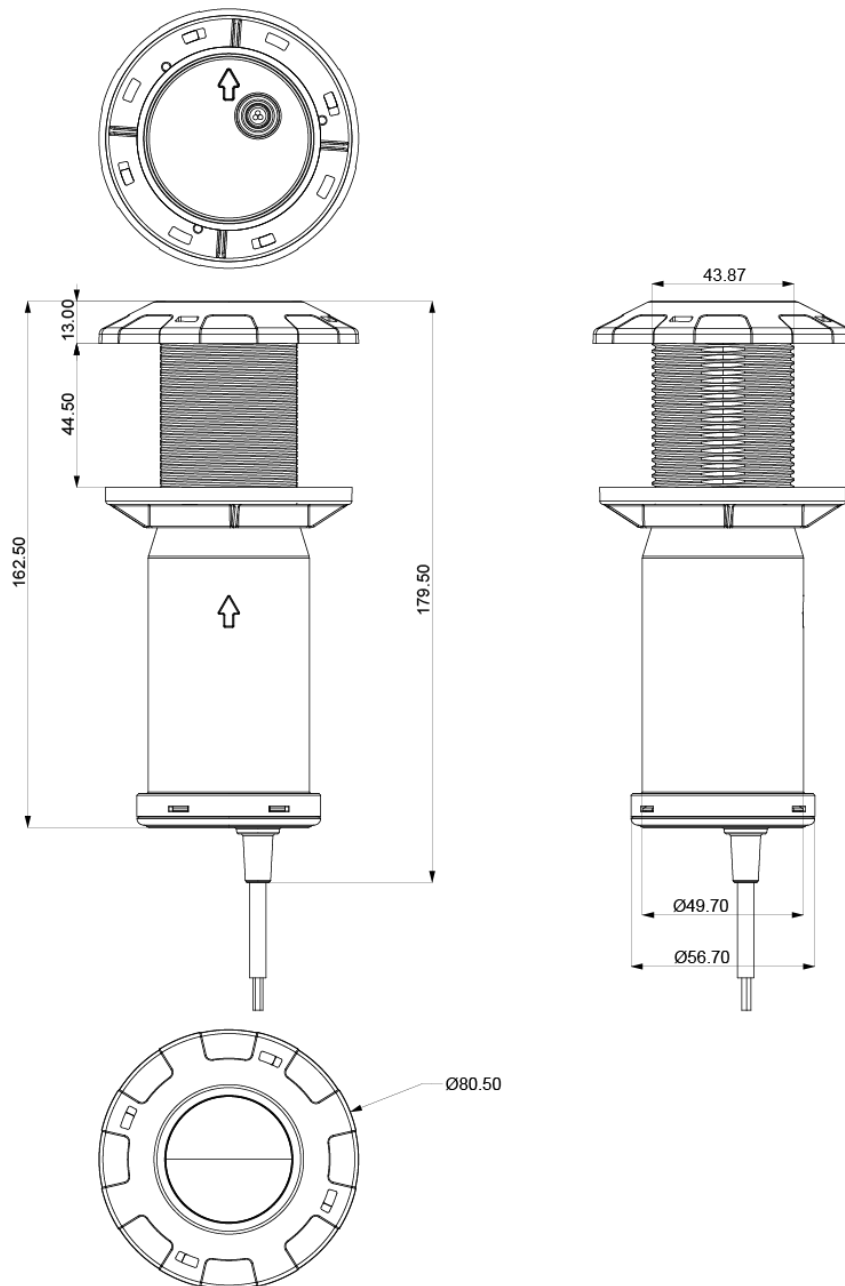
DRIVE-BY

Communicates with Mobile Data Collector (MDC) using Short Range Radio Frequencies (SRRF) to collect water readings in Drive-By mode near the water meters or sensors.

Mechanical Specifications

Hardware		Environmental	
Model No.	Sienna MX1	Operating Temperature	-30°C to +70°C
Weight	450 g	Storage Temperature	Up to +30°C
Color	Pantone Gray 430C	Operating & Storage Humidity	<100% RH

Product Dimension



Technical Specifications

Power Supply		System	
Battery Size	D	Device Activation	Magnetic sense
Battery Life	20 years <i>Based on transmission interval of once every day</i>	Availability	Semi on-demand
Alerts and Alarms			
Water Backflow	Supported	Overflow Alarm	Supported
High Temperature	Supported	Last Gasp	Battery indication
Removal & Tampering	Supported		
Certifications, Standards and Compliance			
ISO Quality Standards	ISO9001, ISO27001, ISO14001, ISO45001		
RF Radio	47CFR FCC Part 15		
RoHS	Yes		
Ingress Protection	IP68 per IEC 60529-1		

Meter Compatibility

Meter OEMs & Encoder Series	
Sensus Protocol	UI1203
Badger	Absolute Digital Encoder
Kamstrup	RowIQ 2100
Diehl Metering	Hydrus 1.0/1.3/2.0
Xylem	IPERL 5/8" SR II
Muller Systems	Solid State Register
Hersey	5/8 420
Invensys	5/8" SR II®
Neptune Technologies	ProRead E-Coder

More Than 17 Million Wireless Nodes Connected Globally For Smart City Applications

Every day our proven, real-world wireless sensors and network solutions empower water utilities and municipalities of all sizes to achieve greater operational control over their systems.



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Your Trusted Partner For City-Scale Smart Water Solutions

ST Engineering Telematics Wireless is a leading technology company focused on creating water efficiencies and optimize water conservation through smart water metering solutions.

With 30 years of expertise in wireless communications technology and innovation, ST Engineering Telematics Wireless is known to provide robust city-scale solutions that delivers proven results for its customers around the world. To date, ST Engineering Telematics Wireless has 17 million wireless nodes deployed globally, empowering utility operations, from municipalities to cities, in their journey towards a water-secure future.

ST Engineering Telematics Wireless is a fully owned subsidiary of ST Engineering Group, a global technology, defense and engineering group with a diverse portfolio of businesses across the aerospace, smart city, defence and public security segments, serving customers in more than 100 countries.

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