

Prism EXT™ Cellular Register

Product Datasheet

Prism EXT is an innovative, cellular water meter monitoring device that transforms nearly any standard meter into a smart water meter. Using advanced sensor technology and the robust Verizon Wireless™ network, Prism EXT units attach to an existing meter and gather critical water data in one-minute intervals and transmit it wirelessly to Metron's powerful dashboard, WaterScope®. Easy to install, durable, and with best-in-class battery life, Prism EXT is the ideal solution for any commercial real estate owner or manager to get the water data they need to eliminate costly leaks and reduce water consumption without having to replace meters and submeters.

Design

Construction: The Prism EXT is a compact, fully encapsulated package for all environments. The monitor has an outer housing which can be attached to interior or exterior walls, posts or internal pits.

Installation: The device attaches to the water meter or register with an easy to install metal band clamp. The sensor does not interfere with the water meter or its connected AMR/AMI equipment.

Communication: The Prism EXT device has an antenna port and includes both a local antenna or a remote antenna for extension through walls or outside pits/vaults.

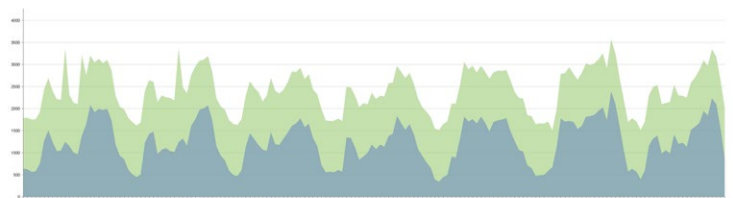
Activation: All Prism EXT units come from the factory activated and provisioned on the Verizon Wireless network. Consumption data on the WaterScope web portal can be accessed within 24 hours of installation.

Operation

The Prism EXT Monitor will query the attached meter/register and store consumption every log interval. The unit will also perform on-board measurements diagnostics regularly. Once per day during super off-peak hours (1am to 6am local time), the unit will negotiate a secure channel with the Verizon Wireless tower and transmit a daily packet with the current meter read, the daily interval logs and other diagnostic data. Following the transmission, the unit waits for any commands from the cloud server (such as configuration or data backfill) prior to returning to normal operational mode.

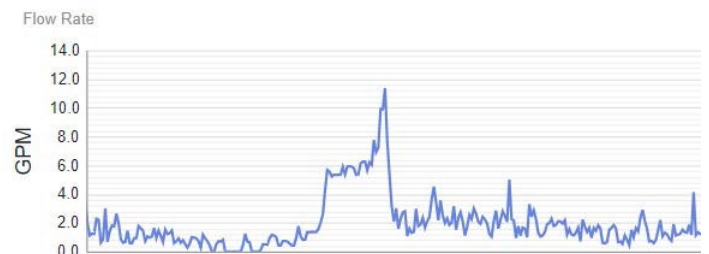


Residential Uses (MHPs, Apartments, HOAs)



Compare consumption between submeters and Prism EXT to identify infrastructure leaks (underground lines, irrigation, pool).

Commercial Uses (Offices, Strip Malls, Schools)



"3am" Leak Alerts: irregular water usage during non-business hours. Notifies owner of a leak as it occurs. Baseline usage should hit zero when the business is not open.

Specifications

Operational

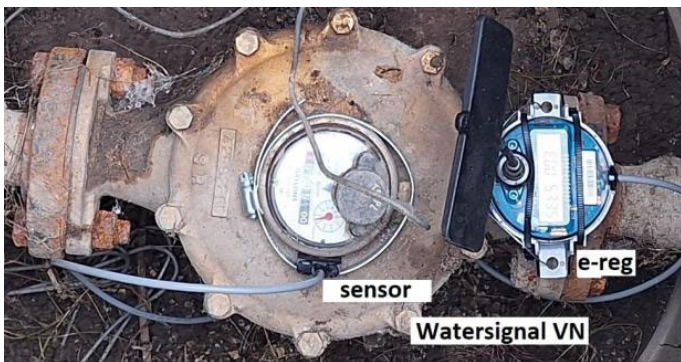
Cellular channel carrier:	Verizon Wireless
Method:	LTE Cat-M
FCC/IC:	License exempt
Secondary comms:	Proprietary InfraRed port
Onboard Storage:	5 min intervals: 227 days 1 min intervals: 45 days
LCD:	8 digits
Display:	Duplicates meter/register Configurable digit underlines
Units:	gallons (US), ft ³ or m ³
Battery:	One 19Ahr non-replaceable
Type:	Lithium Thionyl Chloride
Lifetime:	5 years nominal

Physical

Dimensions: (w/o antenna)	3.6W x 3.6H x 2.5D inches (91W x 91W x 63.5D mm)
Weight:	0.70 lb (0.31 kg)
Storage temperature:	-20° to 140° F (-6° to 60° C)
Operating temperature:	-0° to 140° F (-18° to 60° C)
Humidity:	0 to 100% RH condensing Fully submersible (IP-68)

Compatibility

The Prism EXT is compatible with a wide range of industry registers mechanical water meters. The primary requirement is a magnetic signal associated with the measuring element. Consult with your Metron representative.



Functionality

Configuration: Configuration can be performed via the local InfraRed (IR) port with Metron's IR bridge. The IR bridge can be coupled via USB to a Win10 computer with the Communicator software or be operated in a standalone mode.

Configuration Options

	LCD Setup to match meter registers
	Measurement units
	Log Interval
Data intervals:	Five (5) or One (1) min
Data Backfill:	Automatic from MDMS
OTA Updates:	Available
Onboard Time:	Synced with Verizon
Security:	VPN and encryption Contact Metron for info

Flags/Alerts

Diagnostic

- Comm Error (Cut cable / Tamper)
- Low Signal Strength

Consumption

- Leak / Threshold Leak / Intermittent Leak
- High Usage / Zero Usage
- Backflow
- Unexpected / Unauthorized Usage
- High/Low Temp
- Watering Event

Disclaimers

Transportation: The Prism EXT register contains a lithium battery and thus is prohibited from shipment by air. Please conform with all shipping regulations for lithium batteries.

Safety: The Prism EXT operates with radio frequency (RF) during its cellular communications. Metron can provide a white paper covering the potential health effects of smart meters.

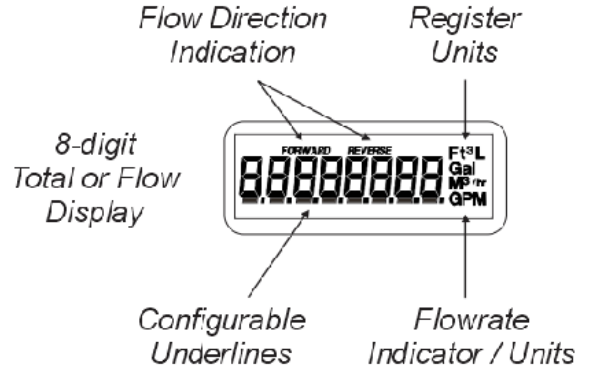
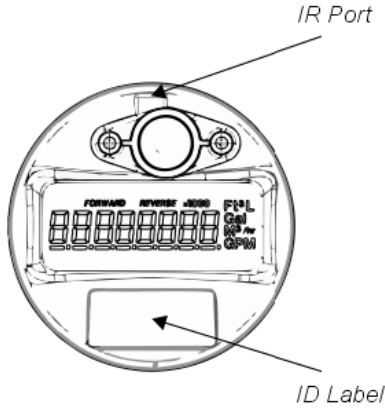
Disposal: The battery inside the Prism EXT is not replaceable and removal should never be attempted. The Prism EXT units should be disposed of in accordance with local regulations.

Warranty

Please contact your Metron representative for formal warranty certifications.

Legal

WaterScope® is a registered trademark of Metron Farnier, LLC. All other trademarks and company names listed in this document are the property of the associated companies.



USG Configuration
0.1 Gallon Resolution

USG - Residential Meters (x0.1)



USG Flowrate - All Meters (x0.01)



Ft3 Configuration
0.01 Ft3 Resolution

Ft3 - Residential Meters (x0.01)



Ft3 Flowrate - All Meters (x0.01)



m3 Configuration
0.001 m3 Resolution

m3 - Residential Meters (x0.001)



m3 Flowrate - All Meters (x0.001)

