

Multimag

Residential Meter with Integrated 80W-i Endpoint

Introduction

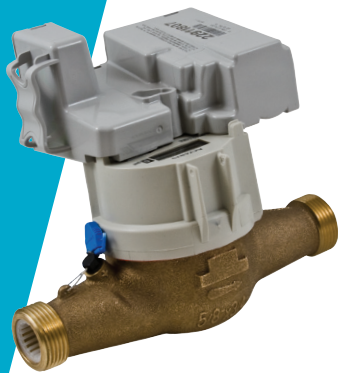
Lightweight yet ruggedly constructed, Itron's Multimag residential meter is one of the most efficient water meters on the market. It combines the advantages of multi jet technology with a water-resistant, roll-sealed register for stable flow measurement. Add the wirelessly integrated 80W-i endpoint for an automated meter reading (AMR) solution that delivers measurement accuracy with Itron's proven module performance.

Multimag features & benefits

Multimag residential meters provide accurate measurement over wide flow ranges, especially at low flows down to 1/8 gallons per minute. The low-cost, multi jet design is designed to withstand the harshest environments with little field maintenance required.

With Multimag residential meters, you can:

- > Realize revenue cycle enhancements from outstanding metrology features such as low-flow accuracy, low start-up torque and a wide measuring range.
- > Easily install and repair meters due to the Multimag's lightweight design and construction.
- > Minimize maintenance issues with a durable water works bronze casing and an impact resistant chamber for increased durability. The hermetically sealed, copper can and glass design protects the register from outside elements.
- > Reduce costs to implement AMR systems with the new integrated 80W-i endpoint or the Cyble module that works with Itron water AMR products.
- > Improve the efficiency of manual reading with a durable, easy-to-read register with impact resistant glass lens.
- > Enable conservation efforts and programs by more accurately measuring water usage.
- > Deploy products that are compliant with industry regulations such as American Water Works Association (AWWA) C708.
- > Install the right meter for your application with a variety of meter sizes including 5/8 x 3/4, 3/4 and 1 inch.



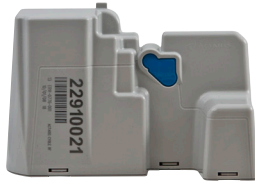
> Meter performance

- High accuracy at low flows
- Long-term reliability
- Ease of installation

> Endpoint reliability

- Wireless integration
- Proven performance
- Leak and tamper alerts
- 20 year battery

> **80W-i endpoint**



> **Multimag 1" with the 80W-i**



> **Cyble AMR module**



80W-i features & benefits

The new 80W-i AMR endpoint is used exclusively with Itron water meters such as the Multimag, Flostar and Woltex meters and is an integral part of an end-to-end AMR system from Itron. Read by the various systems in our ChoiceConnect™ data collection suite, the 80W-i offers high-power capabilities, wireless integration and advanced leak, reverse flow and tamper detection and a 20-year battery life. The 80W-i is the ideal choice for easy AMR integration with Itron meters. With this endpoint, you can:

- > Simplify installation procedures by mounting the 80W-i directly on meter register with its three locking tabs and mounting screw. A wireless connection to the register streamlines the process and eliminates traditional water intrusion points, making this device ideal for pit installations.
- > Combine highly accurate meter consumption detection with proven AMR technology.
- > Reliably gather AMR data with enhanced power output on every fourth bubble-up message; mobile reading performance is improved when mounted in pit boxes with metal lids and fixed network coverage enhanced.
- > Easily migrate your ChoiceConnect™ solution from handheld meter reading to mobile collection to fixed network technology as your business drivers warrant.
- > Operate in the non-licensed 900 MHz RF band.
- > Identify common tamper flags including cut cable, reverse flow and removal events.
- > Actively detect in-home leaks to save water losses and reduce high bills
- > Report up to seven register dials with resolution to 1/10th of a gallon.
- > Ensure optimal performance in the field with a 20 year battery life.
- > Rest easy with a 10/20 year product warranty.

Cyble

Cyble technology enables Multimag residential meters to be read with AMR module technologies like the 60 Series and the Water SaveSource endpoints. There are two Cyble module choices: the Cyble Coder and the Cyble Sensor. The Cyble Coder can be configured for a two or three wire application, making it compatible with all major touch pad and AMR systems. The Cyble Sensor is a pulse output device to suit various remote reading applications. A Cyble module can be installed on any meter in the field without having to upgrade the register.

Multimag technical characteristics

	Units	1/2" x 5/8"	5/8" x 3/4"	3/4"	1"
Normal flow range	gpm	1-20	1-20	2-30	3-50
	m3/h	.25-4	.25-5	0.5-6.8	0.7-11.4
Low flow rate – Qmin	gpm	1/8	1/8	1/2	3/4
	L/h	25	25	110	170
Register capacity	USG		100 000 000		
	Cu Ft		10 000 000		
	m3		100 000		
Sweep hand registration	USG	10	10	10	10
	Cu Ft	1	1	1	1
	L/h	0.01	0.01	0.01	0.01
Maximum working pressure	psi	150	150	150	150
	bar	10	10	10	10
Maximum working temperature	o F	122	122	122	122
	o C	50	50	50	50

Dimensions

	Units	1/2 x 5/8"	5/8 x 3/4"	3/4" SL*	3/4"	1"
A - Length	inch	7.5	7.5	7.5	9	10.75
	mm	190	190	190	229	273
B - Overall Height	inch	3.2	3.2	3.2	3.2	3.7
	mm	80	80	80	80	94
C - Centerline to left side	inch	2.8	2.8	2.8	2.8	3.1
	mm	70	70	70	70	78
D - Centerline to right side	inch	3.9	3.9	3.9	3.9	4.4
	mm	100	100	100	100	111
Weight	lb	2.1	2.2	2.4	4.5	5.9
	kg	1	1	1.1	2	2.7

80W-i specifications

Functional

- > Power source: One "D" cell lithium battery rated for an average life of 20 years
- > Operating temperatures: -4°F to +140°F (-20° C to +60°C)
- > Storage temperatures: -40°F to +158° F (-40°C to +70°C)
- > Humidity limits: 0 to 100% (submersible)
- > Meter compatibility: Itron Multimag, Flostar and Woltex meters

Transmission parameters

- > Data message: Multiple RF channel transmissions of meter register value, cut cable tamper, removal tamper, reverse-flow and system leak status messages broadcast every seven seconds
- > Transmitter frequencies: 910 – 920 MHz
 - Transmit Power: A repeating sequence of three transmit cycles at + 10 dBm (10 milliwatts) followed by one cycle at +24 dBm (1/4 watt). Each transmission is spaced at seven second intervals.

Approved reading devices

- > Walk-by system: Itron G5, FC200 and FC300 radio equipped handheld computers
- > Drive-by system: Itron Mobile Collection System and Mobile Collector Lite
- > Network system: Fixed Network
- > Minimum software versions:
 - MV-RS: v7.7
 - v7.8 for MC Lite
 - v7.8.6 for FC200SR
 - FCS : v1.6
 - v1.8 for FC200SR
 - PremierPlus4: v3.2
 - Integrator: v5.2

Approved programming devices

- > FC200SR and FC300 with Endpoint-Link or Endpoint-Link Pro: v5.3.1 or higher

Physical attributes

- > Dimensions:
 - Length 3"; Width 5 ¼"; Height 2 ½"
- > Weight:
 - 13 oz.

Mounting requirements

- > Meter register housing must be the three tab design

Regulatory and standards

- > FCC Part 15.247
- > Industry Canada #210, Section 6.2.2(o)

About Itron Inc.

Itron Inc. is a leading technology provider to the global energy and water industries. Our company is the world's leading provider of metering, data collection and utility software solutions, with nearly 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water. Our products include electricity, gas and water meters, data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI); meter data management and related software applications; as well as project management, installation, and consulting services. To know more, start here: www.itron.com



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