



Badger[®] ORION[®] Gas

BadgerMeter



technology delivered.

Badger® ORION® Gas

Catch A Rising Star with Badger® ORION® AMR/AMI for Gas Meters

Flexibility is The Key!

ORION is Badger Meter's most flexible automatic meter reading (AMR) system for gas utilities. Developed as a state-of-the-art Radio Frequency (RF) system, ORION utilizes bubble up (broadcast) technology, which eliminates the need for FCC licensing.

Built upon a mobile system platform, ORION provides features of a premier mobile AMR system plus the additional benefit of being able to integrate to Powerline Carrier, Broadband over Powerline, wireless data communications networks, Wi-Fi, and other emerging technology networks. This flexibility results in seamless transition of ORION mobile AMR to network solutions and allows utilities to build upon their ORION system to meet their current and future needs.



Integral Transmitter for Gas Meters

The Badger® ORION® Integral Transmitter for gas meters is a totally integrated unit compatible with popular gas meters and volume correctors. It easily mounts directly on the gas meter using a custom adapter plate, and has an unobtrusive profile and durable thermo-engineered polymer housing. For long-term reliability, the electronics and battery are completely encapsulated to protect them from the elements. During installation, the transmitter is programmed with the current gas meter reading so that the account history is maintained. It encodes and transmits the gas meter reading, meter identification number, and tamper information.

Since ORION transmitters are designed for multi-utility applications, all the various data collection devices from Badger, our Alliance Partners, and the Badger® READCENTER® system are fully compatible.

Other ORION® Modules. Badger's Remote ORION for pulsed outputs is compatible with rotary and turbine meters and volume correctors that provide a pulsed output of the meter reading. Badger's Remote ORION with the Gas RT can be used with any meter in which the drive dial is accessible and the index cover can easily be removed (not recommended for tin and iron case meters). The Gas RT mounts to the face of the index cover directly over the drive dial and provides a digital signal to the transmitter.

Data Profile Option

The Badger® ORION® Data Profile option is just the thing for taking an in-depth look at gas usage patterns over time. Over 21,000 readings with tamper alerts can be saved in user-programmable intervals, providing additional information on gas usage. It's the ideal tool for addressing customer service issues, billing complaints, meter sizing studies and more.



Seamless Solutions from Built-In Flexibility

Industry experts predict the future trend of AMR is leaning more and more towards flexible hybrid solutions compatible with the array of wireless network options available now and into the future. Our customers can rest assured that the AMR choice they make today with Badger® ORION® is not only an excellent choice in mobile AMR technology, but is also the right choice for future migration into emerging networks.

The Clear Advantage

- No FCC license required. Uses bubble-up (broadcast) technology.
- Tamper and no usage notification provides tools necessary to manage the utility's system.
- Data Profile Option with 21,000 historical data points to evaluate usage patterns (2.3 years of hourly data).
- Fast and easy transmitter installation.
- ORION integral module meets Class I Div 1 requirements.
- Suitable for indoor and outdoor applications. Functional temperature range from -40°C to +60°C (-40°F to +140°F).

Public Wireless Network Partners

- Sprint®/Nextel® • Tropos™ • Motorola® • SkyPilot™

ORION GATEWAY Receiver

Badger Meter has developed an innovative hybrid receiver product that allows a utility to migrate seamlessly from a walk-by or drive-by ORION solution to a network Advanced Metering Infrastructure (AMI) system or to selectively read the most important meters in their system remotely through the ORION Gateway Receiver. Our hybrid receiver provides connectivity to various network backhails such as Cellular, Wi-Fi, or LAN, providing true flexibility.



ORION GATEWAY Receiver

Badger® ORION® mobile data collector



Trimble® Ranger™ handheld data collector



READCENTER® Reading Data Management Software

READCENTER Reading Data Management Software

Badger® READCENTER® is an easy-to-use Windows®-based reading data management software program developed specifically for utilities. With its unique design, READCENTER software supports all Badger® meter reading systems. These systems provide utilities with a seamless migration path to manage the most appropriate data management requirements, based on the reading data needs of both the utility and the end gas customer.



Flexible Hybrid Solution

Badger® READCENTER software provides a flexible hybrid solution for your meter reading and data information needs today and into the future. Your current Badger meter reading system can be upgraded or combined with other Badger technologies, all operating on the same versatile READCENTER software platform. There is no need to learn or integrate another piece of software into your utility operation. Your future migration path is seamless with READCENTER Reading Data Management Software.





READCENTER Benefits

- Supports automated processing of the reading cycle, making the procedure more streamlined and efficient for the software operator.
- Provides a custom software configuration, making the Badger® READCENTER® system simple to operate by activating only those screens and features that are required for each specific utility installation.
- Utilizes industry standard SQL Database that organizes reading information based on individual accounts for reporting and customer service purposes.
- Provides the flexibility to easily integrate READCENTER software into multiple billing interface files, offering utilities a seamless migration path without having to modify data sent to and from your utility billing software.

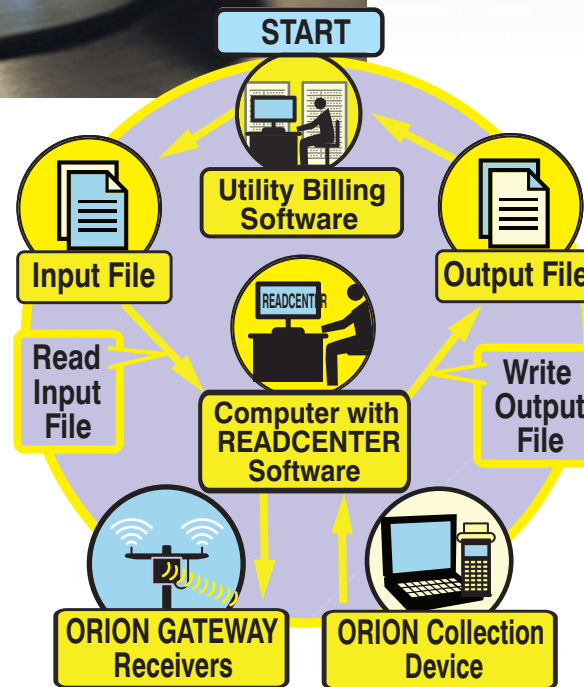
ORION® Data Flow through Billing

To complete the billing process, Badger's READCENTER Software provides a simple interface to utility billing software. It also provides a suite of premium reports to help better manage a utility's daily utility operations. However, should you require a unique report designed specifically for your utility, custom reporting capabilities are built right into the software. No third-party report generator software is needed.

Badger's reading data management software, READCENTER, provides the utility with one single platform for all their reading methods:

- ORION Hybrid Network AMI
- ORION Mobile AMR

Hybrid or mixed technology systems are readily supported through READCENTER software. It's the data that matters. Few manufacturers provide this degree of flexibility.



Account ID	Last Name	House #	Street Name	Meter Type	Meter Serial #	Service #	Module Type	Module Serial #	Route ID	
0100400	ALLAN F DIEHL	1100	MAIN ST	Gas ORION	3463079		1,2	ORION	00070004	01
0100500	WILLIAM SLADY	1106	MAIN ST	Gas ORION	2943073		1,2	ORION	00040070	01
0100600	PORTAGE BANK	1100	MAIN ST	Gas ORION	9649374		1,2	ORION	00124006	01
0100700	THE TIRE SHOP	1102	MAIN ST	Gas ORION	9621076		1,2	ORION	00262015	01
0100800	JAMES KREUTZ	1012	MAIN ST	Gas ORION	9621070		1,2	ORION	00120005	01
0100900	JAMES IRWIN	1000	MAIN ST	Gas ORION	9900077		1,2	ORION	00050070	01
0101100	FRANCIS SHINE	1004	MAIN ST	Gas ORION	9600000		1,2	ORION	00150054	01
0101200	A B BELL INC	001	SOMMAN AVE	Gas ORION	9534232		1,2	ORION	00070005	01
0101300	Vacant	001	SOMMAN AVE AP	Gas ORION	9542974		1,2	ORION	00070490	01
0101400	DAVE FERRENCE	001	SOMMAN AVE AP	Gas ORION	9542973		1,2	ORION	00070503	01
0101500	CRYSTAL BOWEN	001	SOMMAN AVE AP	Gas ORION	9542975		1,2	ORION	00070504	01
0101600	DAVID GALLO	001	SOMMAN AVE AP	Gas ORION	9542972		1,2	ORION	00070509	01
0101700	Vacant	001	SOMMAN AVE AP	Gas ORION	9542971		1,2	ORION	00070519	01
0101800	KARL KREUTZ	001	SOMMAN AVE AP	Gas ORION	9542976		1,2	ORION	00070510	01
0101900	ROBERT KREUTZ	001	SOMMAN AVE AP	Gas ORION	9534234		1,2	ORION	00070504	01
0102000	HELENA BEEH	001	SOMMAN AVE AP	Gas ORION	9534233		1,2	ORION	00070491	01
0102100	SUMMIT BANK	924	MAIN ST	Gas ORION	30024807		1,2	ORION	00074570	01
0102200	AMVETS	910	MAIN ST	Gas ORION	1574487		1,2	ORION	00205432	01
0102400	MAURICE FRED	906	MAIN ST	Gas ORION	20614050		1,2	ORION	00070547	01
0102500	ROBERT FOL	902	MAIN ST APT	Gas ORION	10071488		1,2	ORION	00071504	01
0102600	ROBERT FOL	902	MAIN ST STORE	Gas ORION	18000000		1,2	ORION	01320460	01
0102800	Vacant	022	MAIN ST	Gas ORION	16021944		1,2	ORION	00081071	01
0102900	KATHLEEN QUINN	010	MAIN ST	Gas ORION	9620170		1,2	ORION	00084123	01
0103000	ANDREW SEREN	014	MAIN ST	Gas ORION	14614230		1,2	ORION	00074009	01
0103100	ANDREW SEREN	012	MAIN ST	Gas ORION	20736070		1,2	ORION	0007122	01
0103200	VACANT	000	MAIN ST	Gas ORION	57053000		1,2	ORION	00074502	01
0103300	DANIEL KRALIK	004	MAIN ST	Gas ORION	18000091		1,2	ORION	00090044	01
0103400	PATY SMITH	004	MAIN ST APT B	Gas ORION	20754006		1,2	ORION	00254002	01
0103500	TOM MYERS	724	MAIN ST	Gas ORION	18000070		1,2	ORION	00020005	01

Customer	Meter	Registration	To Reader	From Reader	Utility User	Notes
Account ID	0100400					
Description						
First Name						
Last Name	ALLAN F DIEHL					
House #	1100					
Street	MAIN ST					
City						
Item #	1					
Meter Type	Gas ORION					
Meter Serial #	3463079					
Meter Install Date						
Meter Location	/ /					
Meter Sub-Group						
Meter Instruction						

Multi-Utility Alliance Partner Solutions

Maximize ORION System Performance with Badger's Multi-Utility Partner Solutions



Badger strives to build future flexibility into all of its technology offerings. To accomplish this, Badger Meter has developed close alliances with electric AMI industry leaders in various network technology sectors. Our alliances with these network leaders allow ORION's gas transmitters to easily migrate from a mobile AMR system into a multitude of electric AMI network solutions, with no changes or reprogramming needed to the gas transmitters already installed in the field. Now, combined utilities can have the best-in-class AMI solutions for gas and electric by choosing Badger® ORION® and one of our valued alliance partners. Badger's Multi-Utility Alliance Partner Solutions offer seamless electric AMI network migration paths.

Multi-Utility AMI Alliances

- Wireless Data Communications Networks – **Tantulus**
- Powerline Carrier – **Landis+Gyr** and **Aclara™**
- Broadband Over Powerline – BPL – **CURRENT Group, LLC**
- Public Wireless Backhaul – **SmartSynch®**



Support Services



TECHNICAL SUPPORT

Badger's Technical Support group provides you with the resources and technical assistance necessary to maximize your Badger Meter investments. Badger's Technical Support phone assistance is available 24 hours a day.

Our objectives are:

- To respond to customer inquiries in the shortest time possible.
- To encourage customers to use our meters, meter reading systems and software efficiently.
- To keep customers informed of software updates in a clear and timely way.
- To provide a centralized repository of all customer call information to be used by other Badger Technical Support and Services Representatives when assisting our customers.

Badger Support Services

Badger Meter provides a variety of support and services to ensure that your organization maximizes the value it derives from your investment in Badger's meter reading systems and software.

TRAINING SUPPORT

Badger Training Support offers you a wide range of learning opportunities to optimize your use of Badger® meter reading systems. Your attendance at one of our courses will help you provide greater value to your organization and further develop your own skills. Choose what best fits your needs:

- Courses taught at our training facility in Milwaukee.
- Customized training to meet your organization's specific requirements.
- On-site, one-on-one standardized training at your location.
- Live instruction via the Web for individuals or groups.

FIELD SUPPORT

Badger Field Support provides system expertise, installation and project management services to help you upgrade your metering system. We specialize in infrastructure layout to optimize your AMI fixed network system installation to ensure peak performance.



Ready to Serve You

Technical Support (24-Hour Service)

1-800-456-5023

Badger professionals can answer your questions, providing prompt technical assistance for BMI solutions.

Customer Service (8:00 AM to 5:00 PM / U.S. Central Time)

1-800-616-3837

Knowledgeable Badger staff supports you every step of the way in the ordering process. From general product applications to order placement to meet your individual needs.

Check out our web site for detailed specifications and literature for our entire product line which includes an interactive video detailing the features, benefits and principles of operation of each product.

www.badgermeter.com

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