



**Badger Meter**

## JEFFERSON PARISH

Invitation to Bid 5000145470  
Purchase of Water Meters for the Jefferson Parish  
Eastbank Public Works Warehouse  
Opening Day: Monday, June 10, 2024 at 11:00 a.m.CST



4545 W Brown Deer Road  
PO Box 245036  
Milwaukee, Wisconsin 53224-9536  
414-355-0400 | 800-876-3837  
[www.badgermeter.com](http://www.badgermeter.com)

June 6, 2024

Ms. Shanna Folse  
Purchasing Specialist II  
200 Derbigny Street  
General Government Building, Suite 4400  
Gretna, LA 70053

**RE: Purchase of Water Meters for the Jefferson Parish Eastbank Public Works Warehouse**

*Opening Date: Monday, June 10, 2024 at 11:00 a.m. CST*

Dear Ms. Folse:

Accompanying this letter is the response from Badger Meter, Inc. ("Badger Meter") to the Jefferson Parish's ("the Parish") Purchase of Water Meters for the Jefferson Parish Eastbank Public Works Warehouse Invitation to Bid (ITB) 5000145470, requesting a supply of new meters. Badger Meter appreciates the opportunity to support the Parish's objectives set forth with the release of this ITB. At Badger Meter, we take our customers' needs seriously and look forward to demonstrating to the Parish what it means to partner with us. The commitment of Badger Meter is to provide the Parish high-quality products that are readily available and offer extraordinary value. Our people, operations, and products have allowed us to deliver on this commitment consistently, providing an exceptional customer experience and Smart Water solution for the complete water ecosystem.

Badger Meter is a market leader in water meter technology with 119+ years of experience designing, manufacturing, and supplying water meters, including over 35 million water meters installed nationwide. With more than a century in the metering business, the Parish can rest assured Badger Meter is a reputable company renowned for providing the highest-quality products.

As the world continues to navigate economic challenges that have been affecting many organizations, Badger Meter continues to work meticulously to ensure our customers receive high-quality products that are available and provide great value. While Badger Meter has some of the most competitive lead times, the high demand in the market continues to strain organization's ability to consistently provide products quickly. While we try to keep our costs and delivery times steady and consistent, these concerns have affected the lead times quoted to the Parish previously.

For this response to the Parish's ITB, please note payment terms are net 30 days. Prices quoted in this bid, if awarded to Badger Meter, will remain firm for six months, through December 3, 2024, if acceptance is made within 120 days. This letter, as well as the general disclosures, are attached to, and become part of Badger Meter's response.

A copy of the bid tabulation, for our records, is appreciated. Electronic results can be emailed to [proposals@badgermeter.com](mailto:proposals@badgermeter.com).

In the event you have any questions regarding this correspondence, our Proposals department can be reached by email at [proposals@badgermeter.com](mailto:proposals@badgermeter.com) or by telephone at 800-876-3837. Additionally, you may contact your Account Manager, Brent Bennet, by email at [bbennett@badgermeter.com](mailto:bbennett@badgermeter.com) or by telephone at 225-305-3079.

Sincerely,

BADGER METER, INC.



Charla D. Dury  
Assistant Secretary and Proposal Lead

# GENERAL DISCLOSURES

## CONFIDENTIALITY STATEMENT

The information contained herein is to be considered confidential and proprietary to the extent allowable by law. © 2024 Badger Meter, Inc. All rights reserved.

## DISCLOSURES

For this response to the Department's ITB, please note payment terms are net 30 days. Prices quoted in this bid, if awarded to Badger Meter, will remain firm for six months, through December 03, 2024, if acceptance is made within 120 days.

If applicable, sales tax and freight will be calculated based on rates and tax status in effect at the time of invoicing.

Due to continuous improvements and redesign of our products and technology solutions, Badger Meter reserves the right to provide our newest product solutions as an alternative to the proposed products, provided they are in conformance with the requirements of the specifications and do not exceed the prices quoted.

We provide certification files to help you manage your meter and endpoint inventory along with the corresponding meter accuracy data. The standard method of delivery for this format is via electronic mail. Any deviations from our standard format, or any custom file formats, will be considered on a time and material basis.

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# AUTHORIZATION TO SIGN





4545 W Brown Deer Road  
PO Box 245036  
Milwaukee, Wisconsin 53224-9536  
414-355-0400 | 800-876-3837  
www.badgermeter.com

C E R T I F I C A T I O N  
O F S I G N A T U R E A U T H O R I T Y

I certify as follows:

By Board Resolution adopted by the Board of Directors of Badger Meter, Inc. and in full force and effect as of this date:

The following *elected executive officers* are, among other things, hereby authorized to execute, amend, and cancel bids and contracts for the sale of products, distributor and representative agreements, bid bonds, surety bonds, contracts, leases and certain other legally binding documents in the ordinary course of business, in the name of Badger Meter, Inc.

Kenneth C. Bockhorst	Chairman, President and Chief Executive Officer
Robert A. Wrocklage	Senior Vice President – CFO
Lars B. Kristensen	Vice President – Global Flow Instrumentation and International Utility
Kimberly K. Stoll	Vice President – Sales and Marketing
Matthew L. Stuyvenberg	Vice President – Water Quality & Software
William R. A. Bergum	Vice President – General Counsel & Secretary
Daniel R. Weltzien	Vice President - Controller

Pursuant to the Power granted by the Board of Directors, the following *elected non-executive officers* are hereby authorized to execute, amend, and cancel bids, bid-related contracts and documents, requests for proposals and quotes, and all other bid-related documentation in the name of Badger Meter, Inc.

Wayne Dennis	Assistant Secretary	Senior Director - International Sales & Marketing
Charla D. Dury	Assistant Secretary	Proposal Lead – Bids and Contract Administration
Nicholas J. Gemmill	Assistant Secretary	Director - Senior Legal Counsel
Matthew B. Gieseke	Assistant Secretary	Proposal Lead – Bids and Contract Administration
Shauna A. Griffin	Assistant Secretary	Sr. Director – Utility Sales
David A. Miller	Assistant Secretary	Director – Legal Counsel
Rachel J. Meyer	Assistant Secretary	Proposals Manager – Bids and Contract Administration
Jessica A. O’Malley	Assistant Secretary	Director – Turnkey Operations
Kavin Tedamrongwanish	Assistant Secretary	Director – Legal Counsel
Monique D. White	Assistant Secretary	Proposal Lead – Bids and Contract Administration

BY:

William R. A. Bergum,  
Vice President - General Counsel & Secretary  
Badger Meter, Inc.

May 13, 2024  
Date

# INVITATION TO BID



DATE: 6/03/2024

INVITATION TO BID  
THIS IS NOT AN ORDER

Page: 5

BID NO.: 50-00145470

**JEFFERSON PARISH**  
PURCHASING DEPARTMENT  
P.O. BOX 9  
GRETNA, LA. 70054-0009  
504-364-2678

VENDOR: 27118 BLANK BID COPY VENDOR

PURCHASING SPECIALIST:  
SFOLSE

As per LSA-RS 47:301 et seq., all governmental bodies are excluded from payment of sales taxes to any Louisiana taxing body. Quotations shall be based on F.O.B. Agency warehouse or jobsite, anywhere within the Parish as designated by the Purchasing Department.

JEFFERSON PARISH reserves the right to cancel all or any part of an order if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel at any time and for any reason by issuing a THIRTY (30) day written notice to the contractor.

JEFFERSON PARISH is expecting all products to be new and all work to be done in workman-like manner, according to standard practices. Any deviations or alteration from the specifications must be indicated on the bid form for each item and upon request, product data for same must be submitted by the time specified by the Purchasing Department.

<b>DELIVERY: FOB JEFFERSON PARISH</b>	
INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES	<u>100 days ARO</u>
INDICATE STARTING TIME (IN DAYS) FOR CONSTRUCTION WORK	<u>Not Applicable</u>
INDICATE COMPLETION TIME (IN DAYS) FOR CONSTRUCTION WORK	<u>Not Applicable</u>

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form by placing the addendum number as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: Not Applicable

NUMBER: \_\_\_\_\_

NUMBER: \_\_\_\_\_

NUMBER: \_\_\_\_\_

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) Not Applicable, Supply Only

<b>*** ALL BIDDERS MUST COMPLETE SECTION BELOW ***</b>	
FIRM NAME: <u>Badger Meter, Inc.</u>	
SIGNATURE: (Must be signed here)	TITLE: <u>Assistant Secretary &amp; Proposal Lead</u>
PRINT OR TYPE NAME: <u>Charla D. Dury</u>	
ADDRESS: <u>4545 W. Brown Deer Road</u>	
CITY, STATE: <u>Milwaukee, WI</u>	ZIP: <u>53223</u>
TELEPHONE: <u>(800)876-3837</u>	FAX: <u>(414)371-5981</u>
EMAIL ADDRESS: <u>proposals@badgermeter.com</u>	

TOTAL PRICE OF ALL BID ITEMS: \$ 55,248.48

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00145470

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	432.00	EA	<p>PURCHASE OF WATER METERS FOR THE JEFFERSON PARISH EASTBANK PUBLIC WORKS WAREHOUSE</p> <p>0010-METER, 5/8 IN x 3/4 IN, NO LEAD BRONZE HOUSING, SHROUD AND LID, POSITIVE DISPLACEMENT, 25 GPM, S/S DISC SPINDLES, CERAMIC MAGNET, WITH ITRON CONNECTOR, BADGER RCDLM25,</p> <p>TO BE DELIVERED TO:</p> <p>JEFFERSON PARISH EASTBANK WAREHOUSE 4901 JEFFERSON HIGHWAY JEFFERSON, LA 70121</p>	\$ 127.89	\$ 55,248.48

# PRODUCT DATA SHEETS





**Badger Meter**

## Recordall® Disc Meters

Lead-Free Bronze Alloy, Sizes 5/8, 5/8 x 3/4, 3/4 & 1 inch  
NSF/ANSI Standards 61 and 372 Certified



**Model 25**—5/8 in., 5/8 x 3/4 in.



**Model 35**—3/4 in.



**Model 55**—1 in.



**Model 70**—1 in.

### DESCRIPTION

The Recordall Disc Series meters meet or exceed the most recent revision of AWWA Standard C700 and are available in a lead-free bronze alloy. The meters comply with the lead-free provisions of the Safe Drinking Water Act, are certified to NSF/ANSI Standards 61 and 372 (Trade Designations: M25-LL, M35-LL, M55-LL, M70-LL) and carry the NSF-61 mark on the housing. All components of the lead-free bronze alloy meter (housing, measuring element, seals, and so on) comprise the certified system.

**Applications:** For use in measurement of potable cold water in residential, commercial and industrial services where flow is in one direction only.

**Operation:** Water flows through the meter's strainer and into the measuring chamber where it causes the disc to nutate. The disc, which moves freely, nutates on its own ball, guided by a thrust roller. A drive magnet transmits the motion of the disc to a follower magnet located within the permanently sealed register. The follower magnet is connected to the register gear train. The gear train reduces the disc nutations into volume totalization units displayed on the register or encoder face.

**Operating Performance:** The Recordall Disc Series meters meet or exceed registration accuracy for the low flow rates (95%), normal operating flow rates (100 ±1.5%), and maximum continuous operation flow rates as specifically stated in AWWA Standard C700.

**Construction:** Recordall Disc meter construction, which complies with ANSI/AWWA standard C700, consists of three basic components: meter housing, measuring chamber and permanently sealed register or encoder. The meter is available in a lead-free bronze alloy with externally threaded spuds. A corrosion-resistant engineered polymer material is used for the measuring chamber.

**Magnetic Drive:** Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading or AMR/AMI meter reading options.

**Tamper-Proof Features:** Unauthorized removal of the register or encoder is inhibited by the option of a tamper detection seal wire screw, TORX® tamper-resistant seal screw or the proprietary tamper-resistant keyed seal screw. Each can be installed at the meter site or at the factory.

**Maintenance:** Badger Meter Recordall Disc Series meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location.

To simplify maintenance, the register, measuring chamber, and strainer can be replaced without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of parts among like-sized meters and meter models also minimizes spare parts inventory investment. The built-in strainer has an effective straining area of twice the inlet size.

**Connections:** Tailpieces/Unions for installations of meters on various pipe types and sizes, including misaligned pipes, are available as an option.

### Meter Spud and Connection Sizes

Model	Size Designation (in.)	×	"L" Laying Length (in.)	"B" Bore Dia. (in.)	Coupling Nut and Spud Thread (in.)	Tailpiece Pipe Thread (NPT) (in.)
25	5/8	×	7-1/2	5/8	3/4 (5/8)	1/2
	5/8 x 3/4	×	7-1/2	5/8, 3/4	1 (3/4)	3/4
35	3/4	×	7-1/2	3/4	1 (3/4)	3/4
	3/4	×	9	3/4	1 (3/4)	3/4
	3/4 x 1	×	9	3/4	1-1/4 (1)	1
55	1	×	10-3/4	1	1-1/4 (1)	1
70	1	×	10-3/4	1	1-1/4 (1)	1

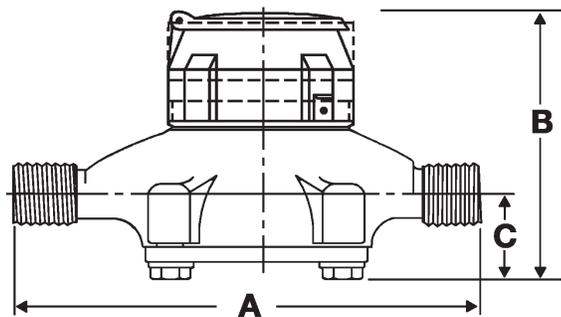
## SPECIFICATIONS

	<b>Model 25</b> <b>(5/8 in. &amp; 5/8 x 3/4 in.)</b>	<b>Model 35</b> <b>(3/4 in.)</b>	<b>Model 55</b> <b>(1 in.)</b>	<b>Model 70</b> <b>(1 in.)</b>
<b>Typical Operating Range</b> <b>(100% ±1.5%)</b>	0.5...25 gpm (0.11...5.7 m <sup>3</sup> /hr)	0.75...35 gpm (0.17...7.9 m <sup>3</sup> /hr)	1...55 gpm (0.23...12.5 m <sup>3</sup> /hr)	1.25...70 gpm (0.28...16 m <sup>3</sup> /hr)
<b>Low Flow</b>	0.25 gpm (0.057 m <sup>3</sup> /hr) Min. 98.5%	0.375 gpm (0.085 m <sup>3</sup> /hr) Min. 97%	0.5 gpm (0.11 m <sup>3</sup> /hr) Min. 95%	0.75 gpm (0.17 m <sup>3</sup> /hr) Min. 95%
<b>Maximum Continuous Operation</b>	15 gpm (3.4 m <sup>3</sup> /hr)	25 gpm (5.7 m <sup>3</sup> /hr)	40 gpm (9.1 m <sup>3</sup> /hr)	50 gpm (11.3 m <sup>3</sup> /hr)
<b>Pressure Loss at Maximum Continuous Operation</b>	<b>5/8 in. size:</b> 3.5 psi @ 15 gpm (0.24 bar @ 3.4 m <sup>3</sup> /hr) <b>5/8 x 3/4 in. size:</b> 2.8 psi @ 15 gpm (0.19 bar @ 3.4 m <sup>3</sup> /hr)	5 psi @ 25 gpm (0.37 bar @ 5.7 m <sup>3</sup> /hr)	3.4 psi @ 40 gpm (0.23 bar @ 9.1 m <sup>3</sup> /hr)	6.5 psi @ 50 gpm (0.45 bar @ 11.3 m <sup>3</sup> /hr)
<b>Maximum Operating Temperature</b>	80° F (26° C)			
<b>Maximum Operating Pressure</b>	150 psi (10 bar)			
<b>Measuring Element</b>	Nutating disc, positive displacement			
<b>Meter Connections</b>	<i>Available in NL bronze and engineered polymer to fit spud thread bore diameter sizes:</i>			
	<b>5/8 in. size:</b> 5/8 in. (DN 15 mm) <b>5/8 x 3/4 in. size:</b> 3/4 in. (DN 15 mm)	3/4 in. (DN 20 mm)	1 in. (DN 25 mm)	1 in. (DN 25 mm)

## MATERIALS

	<b>Model 25</b> <b>(5/8 in. &amp; 5/8 x 3/4 in.)</b>	<b>Model 35</b> <b>(3/4 in.)</b>	<b>Model 55</b> <b>(1 in.)</b>	<b>Model 70</b> <b>(1 in.)</b>
<b>Meter Housing</b>	Lead-free bronze alloy			
<b>Housing Bottom Plates</b>	Cast iron, lead-free bronze alloy, engineered polymer	Cast iron, lead-free bronze alloy		
<b>Measuring Chamber</b>	Engineered polymer			
<b>Disc</b>	Engineered polymer			
<b>Trim</b>	Stainless steel			
<b>Strainer</b>	Engineered polymer			
<b>Disc Spindle</b>	Stainless steel	Stainless steel	Engineered polymer	Stainless steel
<b>Magnet</b>	Ceramic	Ceramic	Ceramic	Ceramic
<b>Magnet Spindle</b>	Engineered polymer	Stainless steel	Engineered polymer	Stainless steel
<b>Register Lid and Shroud</b>	Engineered polymer, bronze			

## DIMENSIONS



Meter Size	Model	A Laying Length	B Height Reg.	C Centerline Base	Width	Approx. Shipping Weight
5/8 in. (15 mm)	25	7-1/2 in. (190 mm)	4-15/16 in. (125 mm)	1-11/16 in. (42 mm)	4-1/4 in. (108 mm)	4-1/2 lb (2 kg)
5/8 in. x 3/4 in. (15 mm)		7-1/2 in. (190 mm)	4-15/16 in. (125 mm)	1-11/16 in. (42 mm)	4-1/4 in. (108 mm)	4-1/2 lb (2 kg)
3/4 in. (20 mm)	35	7-1/2 in. (190 mm)	5-1/4 in. (133 mm)	1-5/8 in. (41 mm)	5 in. (127 mm)	5-1/2 lb (2.5 kg)
3/4 in. (20 mm)		9 in. (229 mm)	5-1/4 in. (133 mm)	1-5/8 in. (41 mm)	5 in. (127 mm)	5-3/4 lb (2.6 kg)
3/4 in. x 1 in. (20 mm)		9 in. (229 mm)	5-1/4 in. (133 mm)	1-5/8 in. (41 mm)	5 in. (127 mm)	6 lb (2.7 kg)
1 in. (25 mm)	55	10-3/4 in. (273 mm)	6 in. (152 mm)	2-1/32 in. (52 mm)	6-1/4 in. (159 mm)	8-3/4 lb (3.9 kg)
1 in. (25 mm)	70	10-3/4 in. (273 mm)	6-1/2 in. (165 mm)	2-5/16 in. (59 mm)	7-3/4 in. (197 mm)	11-1/2 lb (5.2 kg)

## REGISTERS / ENCODERS

### Standard—Sweep-Hand Registration

The standard register is a straight-reading, permanently sealed magnetic drive register. Dirt, moisture, tampering and lens fogging problems are eliminated. The register has a six-odometer wheel totalization display, 360° test circle with center sweep hand, and flow finder to detect leaks. Register gearing is made of self-lubricating engineered polymer, which minimizes friction and provides long life. The multi-position register simplifies meter installation and reading. The register capacity is 10,000,000 gallons (1,000,000 ft<sup>3</sup>, 100,000 m<sup>3</sup>).

A Model 25 register is used in the following example:



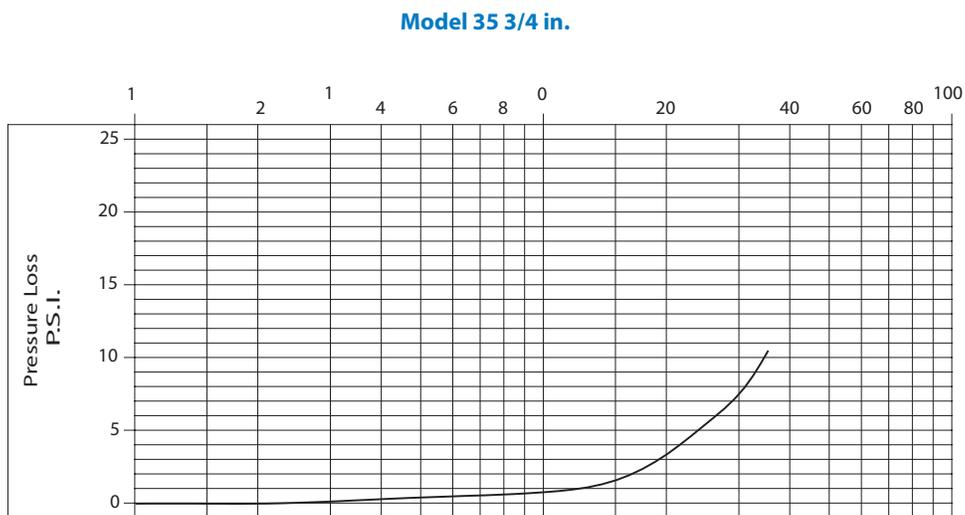
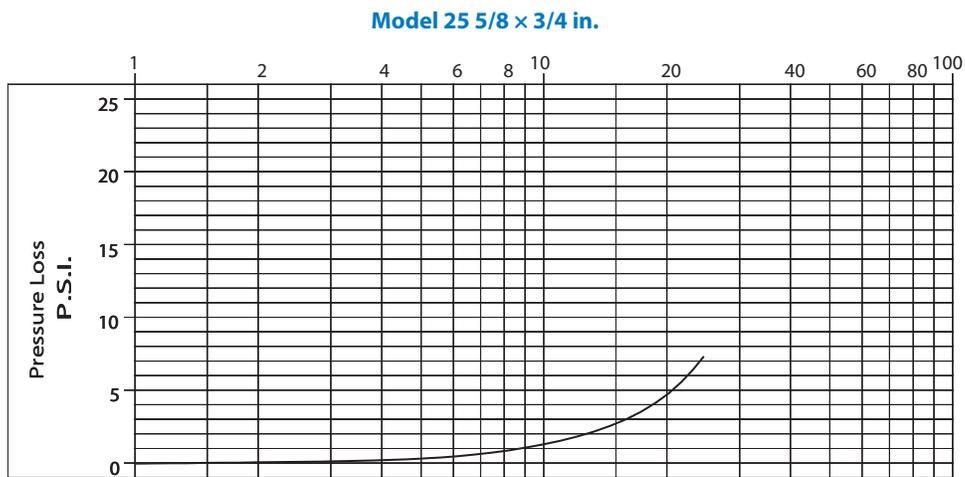
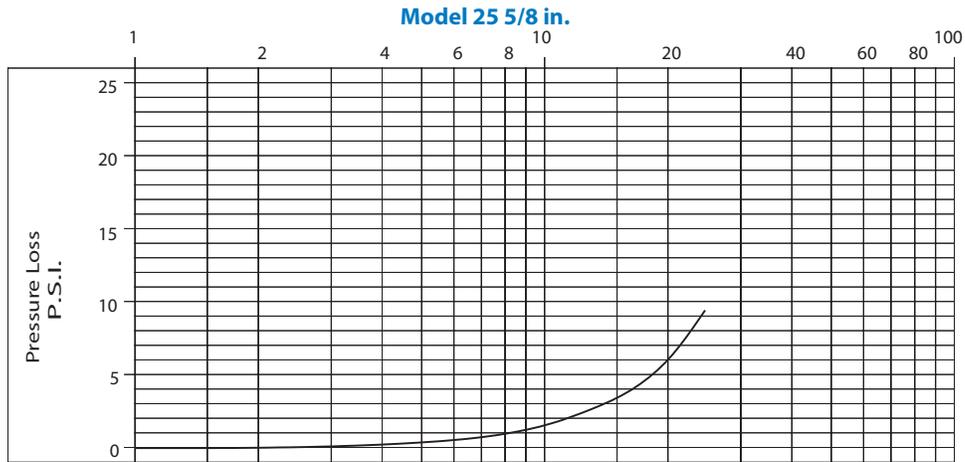
Model	Gallon	Cubic Feet	Cubic Meter
25 (5/8 in.)	10	1	0.1/0.01
25 (5/8 x 3/4 in.)	10	1	0.1/0.01
35	10	1	0.1
55	10	1	0.1
70	10	1	0.1

### Optional—Encoders for AMR/AMI Reading Solutions

AMR/AMI solutions are available for all Recordall Disc Series meters. All reading options can be removed from the meter without disrupting water service. Badger Meter encoders provide years of reliable, accurate readings for a variety of applications. See details at [www.badgermeter.com](http://www.badgermeter.com).

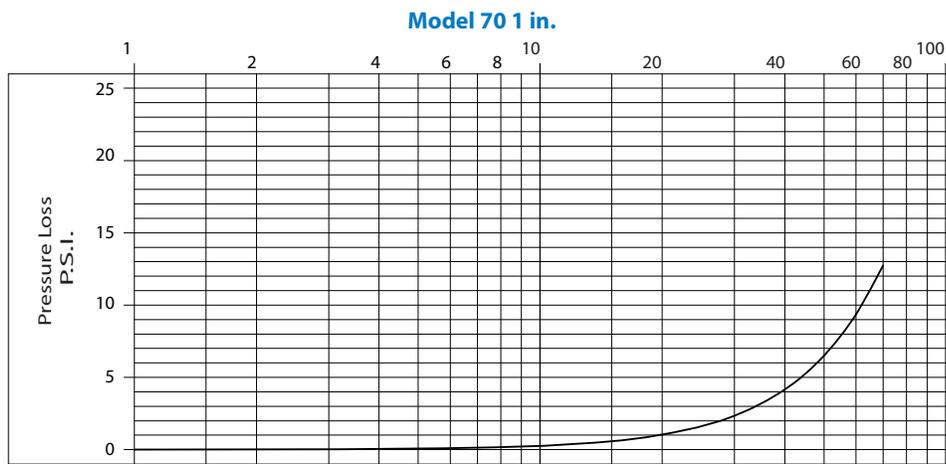
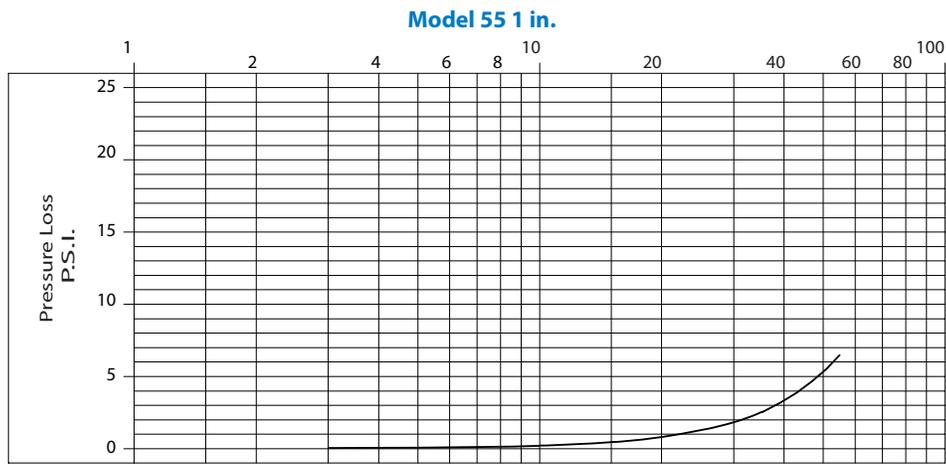
**PRESSURE LOSS CHARTS**

Rate of Flow in Gallons per Minute



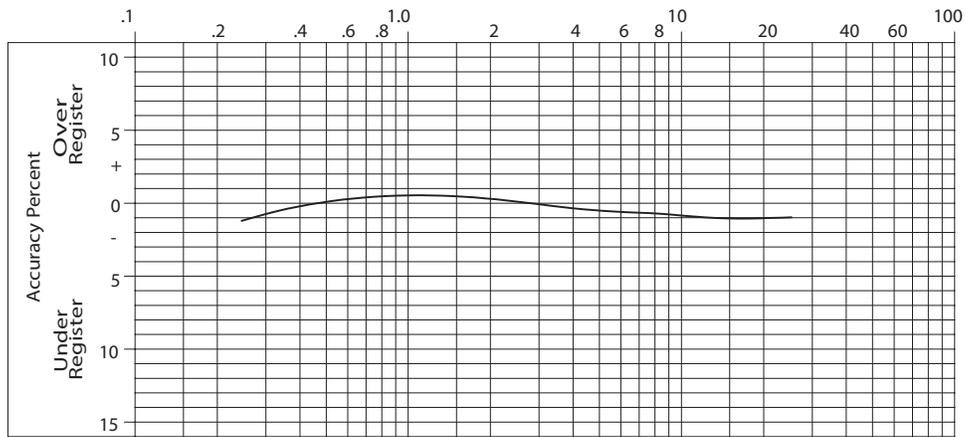
**PRESSURE LOSS CHARTS (CONTINUED)**

Rate of Flow in Gallons per Minute

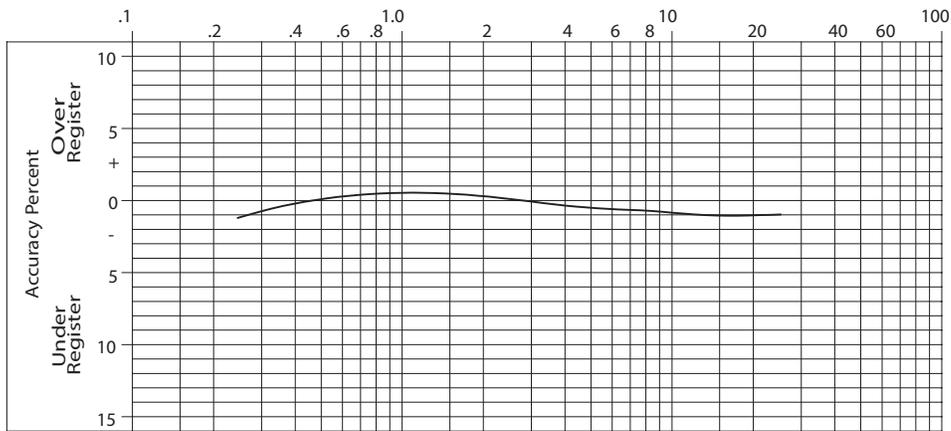


## ACCURACY CHARTS

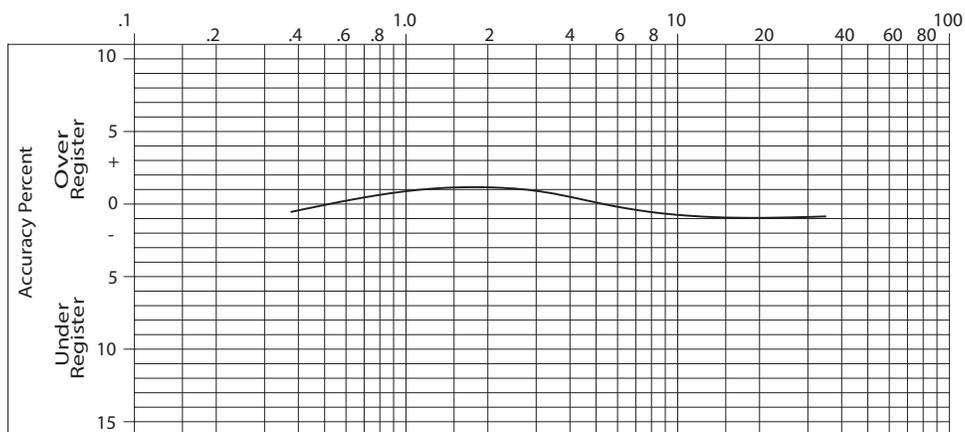
**Model 25 5/8 in.**



**Model 25 5/8 x 3/4 in.**

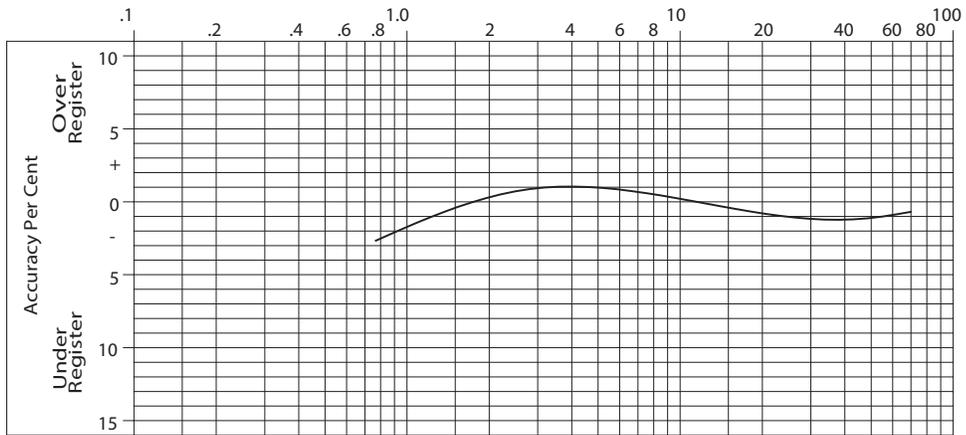


**Model 35 3/4 in.**

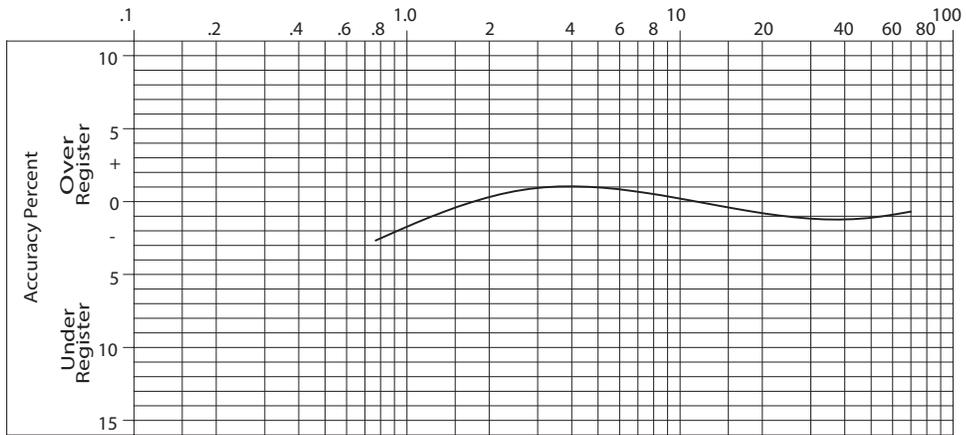


ACCURACY CHARTS (CONTINUED)

Model 55 1 in.



Model 70 1 in.





**Badger Meter**

# HR-E High Resolution Encoder

## DESCRIPTION

**Applications:** The High Resolution Encoder (HR-E) is designed for use with all current Recordall® Disc, Turbo, Compound, Combo and Fire Series meters and assemblies. The HR-E provides connectivity with Badger Meter ORION® and GALAXY® AMR/AMI endpoints, BadgerTouch® modules and other AMR/AMI technology solutions approved by Badger Meter.

**Electronic Resolution:** Encoder output from the HR-E includes eight-dial resolution to AMR/AMI endpoints and the option of four, five, six, seven or eight-dial resolution for touch applications. Refer to tables on the next page for details.

**Mounting:** The HR-E in its shroud assembly uses a bayonet mount compatible with all Recordall Disc, Turbo, Compound and Fire Series meters and assemblies. The bayonet mount allows positioning of the register in any of four orientations for visual reading convenience. The HR-E can be removed from the meter without disrupting water service.

**Magnetic Drive:** A direct-drive, high-strength magnetic coupling, through the meter body to the wetted magnet, provides reliable and dependable register coupling.

**Local Indication:** The HR-E face features an eight-dial mechanical odometer wheel stack and a flow finder with a calibrated test circle.

**Tamper-Resistant Features:** Unauthorized removal of the HR-E is inhibited by the option of a tamper detection seal wire screw, tamper-resistant TORX® seal screw, or the proprietary tamper-resistant keyed seal screw. Each can be installed at the meter site or at the factory.

**Construction:** The housing of the HR-E is constructed of a strengthened glass lens top and a corrosion-resistant metal bottom. Internal construction materials are thermoplastic for long life and high reliability. The encoder gearing is self-lubricating thermoplastic to minimize friction and provide long, reliable life. The shroud assembly is thermoplastic.

**Temperature:** The operating range of the HR-E is -40...140° F (-40...60° C). The water meter should not be subjected to temperatures below freezing.

**Sealing:** The HR-E encoder is permanently sealed to eliminate the intrusion of moisture, dirt or other contaminants. The HR-E achieves true water resistance due to the unique adhesive technology used to seal the glass dome to the corrosion-resistant metal bottom. Due to this sealing process, the HR-E exceeds all applicable requirements of AWWA Standard C707. With leak rates less than 10-6 cc/sec, as tested by a helium mass spectrometer, the HR-E is suitable for installation in all environments, including meter pits subject to continuous submergence.

**Electrical:** The electronic circuitry is designed to provide immunity to electrical surges and transients per IEC 1000-4-2, IEC 1000-4-4. Operation of the HR-E is dependent on the wire length limitations of connected AMR/AMI equipment.



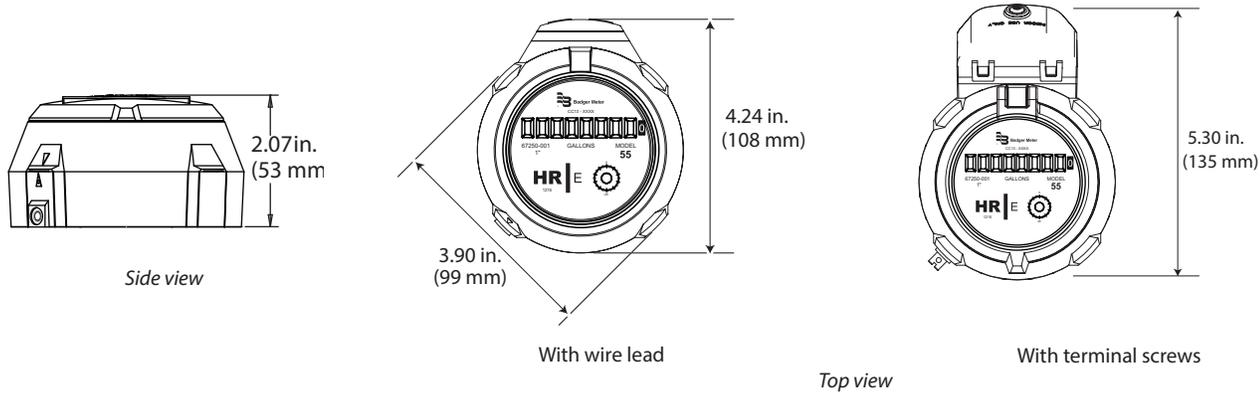
## SPECIFICATIONS

<b>Encoder Type</b>	Straight reading, permanently sealed, magnetic drive
<b>Unit of Measure</b>	U.S. Gallons, Cubic Feet, Cubic Meters, clearly identified on encoder face
<b>Number Wheels</b>	Eight with 5/32 inch high numerals
<b>Test Circle</b>	360° circle with ten major increments, ten divisions each
<b>Weight</b>	10 ounces
<b>Humidity</b>	0...100% condensing when equipped with potted lead wire, 0...95% non-condensing with screw-terminal wire connections
<b>Temperature</b>	-40...140° F (-40...60° C)
<b>Signal Output</b>	Industry Standard ASCII Format
<b>Visual Resolution</b>	1/100th of Test Circle
<b>Electronic Resolution</b>	8-dial resolution for AMR/AMI; 4, 5, 6, 7 or 8-dial resolution for BadgerTouch
<b>Signal Type</b>	3-wire synchronous for AMR/AMI solutions (red=clock/power, black=ground, green=data) 2-wire asynchronous for Touch solutions
<b>Power Source</b>	External

**Operating Characteristics:** The reading obtained by an AMR/AMI device is sensed directly from the position of the encoder's odometer using internal LED light paths to determine the exact position of each number wheel. This technology eliminates electromechanical contacts that could wear out, and provides greater long-term performance.

**Wire Connections:** The HR-E is available with an in-line connector for easy connection and installation to AMR/AMI endpoints. It is also available with a flying lead for a field splice connection or fully prewired to an AMR/AMI endpoint. A terminal screw version of the HR-E is also available. This version features a tamper-resistant cap over the three-wire terminals. The HR-E with terminal screws is designed for indoor installations in protected environments such as residential basements.

## DIMENSIONAL DRAWINGS



## MEASUREMENT RESOLUTION

The minimum electronic resolution of the HR-E is as noted below (8-Dial Reading). To verify the correct resolution for your application, contact Badger Meter Customer Service.

Recordall Disc Series	Size (in.)	8-Dial Resolution (gal)	8-Dial Resolution (ft³)	8-Dial Resolution (m³)
M25/MLP	5/8	0.1	0.01	0.001
M25/MLP	3/4	0.1	0.01	0.001
M35	3/4	0.1	0.01	0.001
M40	1	0.1	0.01	0.001
M55	1	0.1	0.01	0.001
M70	1	0.1	0.01	0.001
M120	1-1/2	1	0.1	0.01
M170	2	1	0.1	0.01

Fire Service Series	8-Dial Resolution (gal)	8-Dial Resolution (ft³)	8-Dial Resolution (m³)
3 in.	1	0.1	0.01
4 in.	1	0.1	0.01
6 in.	10	1	0.1
8 in.	10	1	0.1
10 in.	10	1	0.1

Recordall Turbo Series	Size (in.)	8-Dial Resolution (gal)	8-Dial Resolution (ft³)	8-Dial Resolution (m³)
T160	1-1/2	1	0.1	0.01
T200	2	1	0.1	0.01
T450	3	1	0.1	0.01
T1000	4	1	0.1	0.01
T2000	6	10	1	0.1
T3500	8	10	1	0.1
T5500	10	10	1	0.1
T6200	12	100	10	0.1
T6600	16	100	10	1
T10000	20	100	100	1

Recordall Compound Series	Size (in.)	8-Dial Resolution (gal)	8-Dial Resolution (ft³)	8-Dial Resolution (m³)
High Side T200	2	1	0.1	0.01
Low Side M25	2	0.1	0.01	0.001
High Side T450	3	1	0.1	0.01
Low Side M25	3	0.1	0.01	0.001
High Side T1000	4	1	0.1	0.01
Low Side M35	4	0.1	0.01	0.001
High Side T2000	6	10	1	0.1
Low Side M35	6	0.1	0.01	0.001

Resolution stated as individual high and low readings.

## Making Water Visible®

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# WARRANTY DOCUMENTATION





**Badger Meter**

# Lead-Free Bronze Disc Meters

## PRODUCTS COVERED

This warranty shall apply to all Recordall® Lead-Free Bronze Disc Meters, models 25 through 170, when used to measure potable water, including the registers used with these meters (collectively “Product”) sold on or after January 25, 2019. This warranty is extended only to utilities, municipalities, other commercial users and authorized Badger Meter, Inc. distributors, hereafter referred to as “Customer” and does NOT apply to consumers or any person or entity who is not an original customer of Badger Meter or its authorized distributors.

## MATERIALS AND WORKMANSHIP

Badger Meter warrants Product to be free from defects in materials and workmanship appearing within the following time frames and those listed in the table below:

### Housings

Twenty-five (25) years and six (6) months after shipment from Badger Meter.

### Local Registers Supplied with the Meters Listed Herein

Twenty-five (25) years and six (6) months after shipment from Badger Meter.

	<b>AWWA New Meter Accuracy</b>	<b>AWWA Repaired Meter Accuracy (AWWA M6 Manual)</b>	<b>Badger Meter Extended Low Flow Meter Accuracy</b>
<b>Recordall Meter Model, Size</b>	<i>The meter product will meet or exceed new meter accuracy standards set forth in AWWA Standard C700 for the following periods:</i>	<i>The meter product will meet or exceed repaired meter accuracy standards set forth in AWWA Manual M-6, Chapter 5, Table 5.3 for the following periods:</i>	<i>Badger Meter further warrants the meter product to meet or exceed the following extended low flow accuracies in excess of AWWA standard:</i>
<b>Model 25, 5/8 in. and 5/8 x 3/4 in.</b>	Five (5) years from date of shipment or registration of 750,000 gallons, whichever occurs first.	Fifteen (15) years from date of shipment or registration of 2,500,000 gallons, whichever occurs first, with a 25 gpm safe maximum operating capacity and a 15 gpm maximum rate for continuous operation.	Badger Meter warrants Product low flow accuracy of 98.5% at a rate of 1/4 gpm and low flow accuracy of 95.0% at a rate of 1/8 gpm for five (5) years from date of shipment or registration of 675,000 gallons, whichever occurs first.
<b>Model 35, 3/4 in.</b>	Five (5) years from date of shipment or registration of 750,000 gallons, whichever occurs first.	Fifteen (15) years from date of shipment or registration of 2,500,000 gallons, whichever occurs first, with a 35 gpm safe maximum operating capacity and a 25 gpm maximum rate for continuous operation.	Badger Meter warrants Product low flow accuracy of 97% at a rate of 3/8 gpm for five (5) years from date of shipment or registration of 675,000 gallons, whichever occurs first.
<b>Model 55, 1 in.</b>	Five (5) years from date of shipment or registration of 1,000,000 gallons, whichever occurs first.	Fifteen (15) years from date of shipment or registration of 3,000,000 gallons, whichever occurs first, with a 55 gpm safe maximum operating capacity and a 40 gpm maximum rate for continuous operation.	Badger Meter warrants Product low flow accuracy of 95% at a rate of 1/2 gpm for three (3) years from date of shipment or registration of 575,000 gallons, whichever occurs first.
<b>Model 70, 1 in.</b>	Five (5) years from date of shipment or registration of 1,100,000 gallons, whichever occurs first.	Fifteen (15) years from date of shipment or registration of 3,250,000 gallons, whichever occurs first, with a 70 gpm safe maximum operating capacity and a 50 gpm maximum rate for continuous operation.	Badger Meter warrants Product low flow accuracy of 95% at a rate of 3/4 gpm for three (3) years from date of shipment or registration of 1,100,000 gallons, whichever occurs first.
<b>Model 120, 1-1/2 in.</b>	Two (2) years from date of shipment or registration of 1,600,000 gallons, whichever occurs first.	Fifteen (15) years from date of shipment or registration of 5,600,000 gallons, whichever occurs first, with a 120 gpm safe maximum operating capacity and a 80 gpm maximum rate for continuous operation.	Badger Meter warrants Product low flow accuracy of 95% at a rate of 1-1/4 gpm for two (2) years from date of shipment or registration of 1,440,000 gallons, whichever occurs first.
<b>Model 170, 2 in.</b>	Two (2) years from date of shipment or registration of 2,100,000 gallons, whichever occurs first.	Fifteen (15) years from date of shipment or registration of 10,400,000 gallons, whichever occurs first, with a 170 gpm safe maximum operating capacity and a 100 gpm maximum rate for continuous operation.	Badger Meter warrants Product low flow accuracy of 95% at a rate of 1-1/2 gpm for two (2) years from date of shipment or registration of 1,890,000 gallons, whichever occurs first.

## PRODUCT RETURNS

Any Product proved to the satisfaction of Badger Meter to have failed the foregoing warranties will, at the option of Badger Meter, be repaired or replaced without charge to the Customer. Any eligible Product repaired or replaced by Badger Meter will retain the original Product's warranty based on the original Product purchase date, at Badger Meter's sole discretion. The Badger Meter obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger Meter receiving written notice of any alleged defect within ten (10) days after its discovery. This exclusive remedy shall not be deemed to have failed its essential purpose so long as Badger Meter is willing and able to replace defective products or issue a credit to purchaser within a reasonable time of proof to Badger Meter that a defect is involved. Product returns must be shipped by the Customer prepaid F.O.B. to the nearest Badger Meter factory or distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing the original Product and reinstalling the repaired or replacement Product.

## LIMITS OF LIABILITY

This warranty shall not apply to Product repaired or altered by parties other than Badger Meter. The foregoing warranty applies only to the extent that the Product is installed, serviced and operated strictly in accordance with AWWA Standard C700 and AWWA M6 Manual, as applicable. The warranty shall not apply and shall be void with respect to Product exposed to conditions other than those detailed in the Badger Meter Product technical and/or operational literature, or which have been exposed to adverse installation conditions, damaged by any water conditions and/or water quality, including but not limited to foreign matter in the water such as dirt, sand, minerals, debris, deposits, biofilms, extreme corrosivity, or other impurities, or which have been subject to passage of high-speed air slugs, vandalism, negligence, accident, acts of God, alteration, improper installation, operation or repair, or other circumstances which are beyond the reasonable control of Badger Meter. With respect to Product not manufactured by Badger Meter, the warranty obligations of Badger Meter shall in all respects conform and be limited to the warranty extended to Badger Meter by the supplier.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (except warranties of Title).

Any description of Product, whether in writing or made orally by Badger Meter or its agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets, or similar materials used in connection with any Customer's order are for the sole purpose of identifying Product and shall not be construed as an express warranty. Any suggestions by Badger Meter or its agents regarding use, application or suitability of Product shall not be construed as an express warranty unless confirmed to be such in writing by Badger Meter.

## Exclusion of Consequential Damages and Disclaimer of Other Liability

Badger Meter liability with respect to breaches of the foregoing warranty shall be limited as stated therein. Badger Meter liability shall in no event exceed the contract price.

BADGER METER SHALL NOT BE SUBJECT TO AND DISCLAIMS:

- (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY
- (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER METER, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND
- (3) ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER.

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Legacy Document Number: RD-W-4-AWWA-EN



**Badger Meter**

**HR-E®**

**High Resolution Encoder**

## PRODUCTS COVERED

This Badger Meter warranty shall apply to the High Resolution Encoder (HR-E®) ("Product"), sold on or after June 18, 2021. This warranty is not transferable and is extended only to utilities, municipalities, other commercial users and authorized distributors, hereafter referred to as "Customer" and does NOT apply to consumers or any person or entity who is not an original customer of Badger Meter or its authorized distributors.

## MATERIALS AND WORKMANSHIP

Badger Meter warrants the Product to be free from defects in materials and workmanship appearing within twenty (20) years and six (6) months after shipment from Badger Meter.

This warranty is prorated as follows: For the first ten (10) years of the warranty the Product is replaced at no charge, and the warranty is prorated at price discounts during the last ten (10) years of the warranty.

Specifically, Badger Meter will repair or replace, at its discretion, a non-performing Product at no cost during the first ten (10) years of the warranty and at prorated price discounts during the last ten (10) years of the warranty. Badger Meter will apply these prorated price discounts to the Product list prices in effect at the time of Product return and according to the following prorated price discount schedule:

- Years 11 through 12—75% discount
- Years 13 through 15—50% discount
- Year 16—40% discount
- Year 17—30% discount
- Year 18—20% discount
- Years 19 through 20—10% discount

Replacement Products are warranted for and under the balance of the original applicable Product warranty.

## PRODUCT RETURNS

Any Product proved to the satisfaction of Badger Meter to have failed the foregoing warranties will, at the option of Badger Meter, be repaired or replaced without charge to the Customer. The Badger Meter obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger Meter receiving written notice of any alleged defect within ten (10) days after its discovery. This exclusive remedy shall not be deemed to have failed its essential purpose so long as Badger Meter is willing and able to replace defective products or issue a credit to purchaser within a reasonable time of proof to Badger Meter that a defect is involved. Product returns must be shipped by the Customer prepaid F.O.B. to the nearest Badger Meter factory or

distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing the original Product and reinstalling the repaired or replacement Product.

## LIMITS OF LIABILITY

This warranty shall not apply to Product repaired or altered by parties other than Badger Meter. The foregoing warranty applies only to the extent that the Product is installed, serviced and operated strictly in accordance with Badger Meter instructions. The warranty shall not apply and shall be void with respect to Product exposed to conditions other than those detailed in the Badger Meter Product technical literature or which have been subject to vandalism, negligence, accident, acts of God, alteration, improper installation, operation or repair, or other circumstances which are beyond the reasonable control of Badger Meter. With respect to Product not manufactured by Badger Meter, the warranty obligations of Badger Meter shall in all respects conform and be limited to the warranty extended to Badger Meter by the supplier.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (**except warranties of Title**).

Any description of Product, whether in writing or made orally by Badger Meter or its agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any Customer's order are for the sole purpose of identifying Product and shall not be construed as an express warranty. Any suggestions by Badger Meter or its agents regarding use, application or suitability of Product shall not be construed as an express warranty unless confirmed to be such in writing by Badger Meter.

## Exclusion of Consequential Damages and Disclaimer of Other Liability

Badger Meter liability with respect to breaches of the foregoing warranty shall be limited as stated therein. Badger Meter liability shall in no event exceed the contract price. BADGER METER SHALL NOT BE SUBJECT TO AND DISCLAIMS: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER METER, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND (3) ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER.

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## Jefferson Parish, Purchase of Water Meters for the Jefferson Parish Eastbank Public Works Warehouse, June 6, 2024

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