Recordall® Disc Meters

Engineered Polymer, Sizes 5/8, 5/8 × 3/4, and 3/4 inch
NSF/ANSI Standards 61 and 372 Certified

DESCRIPTION

Recordall Engineered Polymer Disc Series meters meet or exceed the most recent revision of AWWA Standard C710. Recordall Engineered Polymer Disc Series meters comply with the lead-free provisions of the Safe Drinking Water Act, are certified to NSF/ANSI Standards 61 and 372 (Trade Designation: M25 PN) and carry the NSF-61 mark on the housing. All components of the lead-free, engineered polymer meter (disc, chamber, housing, 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: Recordall Disc Series meters meet or exceed registration accuracy for low flow rates (95%), normal operating flow rates (100 ± 1.5%), and maximum continuous operation flow rates as specifically stated in AWWA Standard C710.

Construction: Recordall Disc Series meter construction, which complies with ANSI/AWWA standard C710, consists of three basic components: meter housing, measuring chamber and permanently sealed register or encoder. The water meter is engineered polymer 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.

Model 25

Maintenance: 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

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

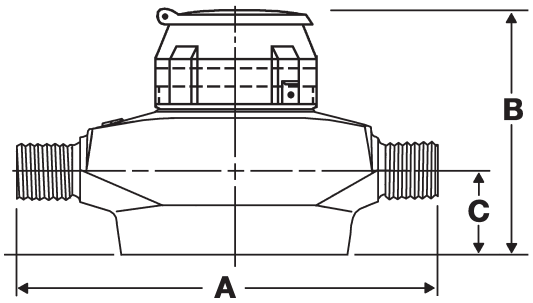
SPECIFICATIONS

	5/8 in.	5/8 × 3/4 in.	3/4 in.
Typical Operating Range (100% ± 1.5%)	1/2…25 gpm (0.11…5.7 m^3/hr)	1/2…25 gpm (0.11…5.7 m^3/hr)	1/2…30 gpm (1.0…6.8 m^3/hr)
Low Flow (Min. 98.5%)	1/4 gpm (0.057 m^3/hr)	1/4 gpm (0.057 m^3/hr)	1/4 gpm (0.057 m^3/hr)
Maximum Continuous Operation	15 gpm (3.4 m^3/hr)	15 gpm (3.4 m^3/hr)	15 gpm (3.4 m^3/hr)
Pressure Loss at Maximum Continuous Operation	4.2 psi at 15 gpm (0.29 bar at 3.4 m^3/hr)	2.8 psi at 15 gpm (0.19 bar at 3.4 m^3/hr)	2.8 psi at 15 gpm (0.19 bar at 3.4 m^3/hr)
Maximum Operating Temperature	80° F (26° C)	80° F (26° C)	80° F (26° C)
Maximum Operating Pressure	150 psi (10 bar)	150 psi (10 bar)	150 psi (10 bar)
Measuring Element	Nutating disc, positive displacement		
Meter Connections	*Available in NL bronze and engineered polymer to fit spud thread bore diameter sizes:*		
	5/8 in. (DN 15 mm)	3/4 in. (DN 15 mm)	3/4 in. (DN 15 mm)

Materials

Meter Housing	Engineered polymer
Housing Bottom Plates	Engineered polymer
Measuring Chamber	Engineered polymer
Disc	Engineered polymer
Strainer	Engineered polymer
Disc Spindle	Stainless steel
Magnet	Ceramic
Magnet Spindle	Engineered polymer
Register Lid and Shroud	Engineered polymer, bronze

DIMENSIONS

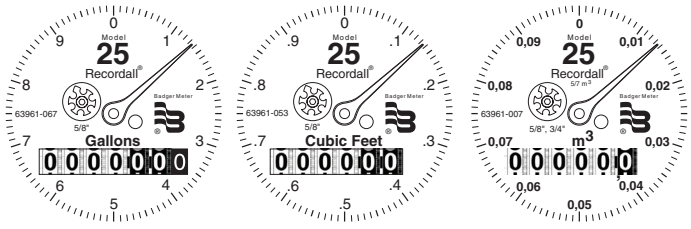


Meter Size	A Laying Length	B Height Reg./RTR	C Centerline Base	Width	Approx. Shipping Weight
5/8 in. (15 mm)	7-1/2 in. (190 mm)	5-1/16 in. (128 mm)	1-3/4 in. (44 mm)	4-13/16 in. (122 mm)	2-1/2 lb (1 kg)
5/8 x 3/4 in.(15 mm)	7-1/2 in. (190 mm)	5-1/16 in. (128 mm)	1-3/4 in. (44 mm)	4-13/16 in. (122 mm)	2-1/2 lb (1 kg)
3/4" (20 mm)	9 in. (229 mm)	5-1/16 in. (128 mm)	1-3/4 in. (44 mm)	4-13/16 in. (122 mm)	3 lb (1.4 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^3, 100,000 m^3).



Meter Model	Gallon	Cubic Feet	Cubic Meter
25	10	1	0.1/0.01
	10	1	0.1/0.01
	10	1	0.1/0.01

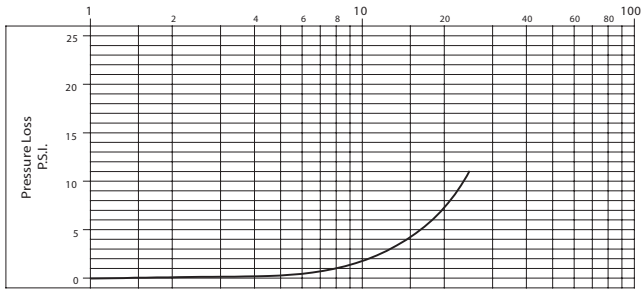
Optional—Encoders for AMR/AMI Reading Solutions

AMR/AMI solutions are available for 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 and are also available pre-wired to Badger Meter approved AMR/AMI solutions. See details at **www.badgermeter.com**.

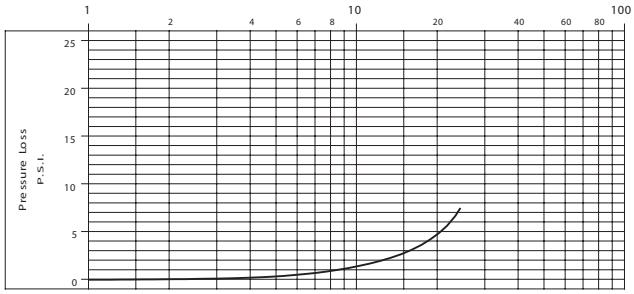
PRESSURE LOSS CHARTS

Rate of Flow in Gallons per Minute

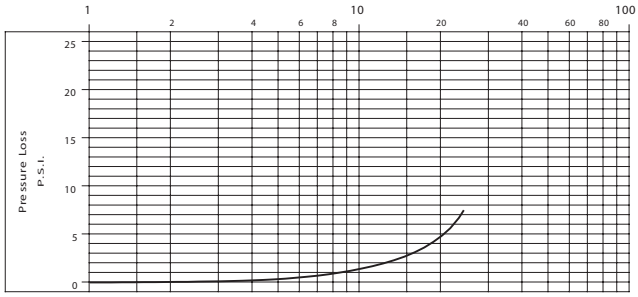
5/8 in.



5/8 x 3/4 in.

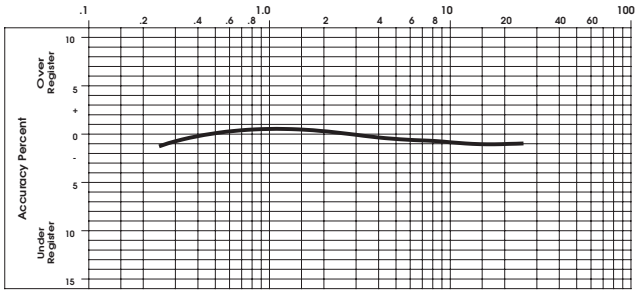


3/4 in.

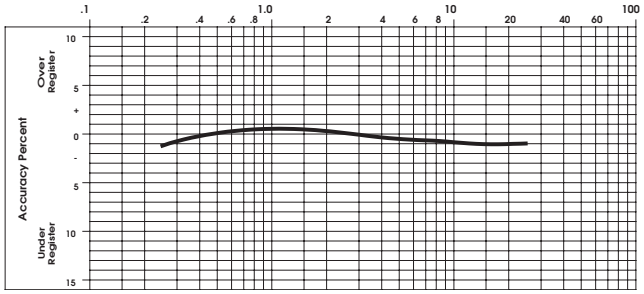


ACCURACY CHARTS

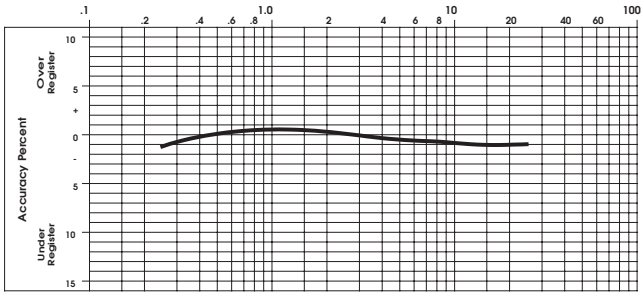
5/8 in.



5/8 x 3/4 in.



3/4 in.



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