

# BOTTOM LOAD MULTI-JET METERS

5/8", 3/4", 1"



## TOUGH, DEPENDABLE AND EXTREMELY CAPABLE

Master Meter Bottom Load Multi-Jets get the job done. Featuring the latest in measurement technology they bring sustained accuracy with tough performance that stands up to particulates that would choke other meters. These bold meters have sensitive measurement capabilities that account for every drop of potential revenue — reading flow as low as 1/8 gallon per minute. Nothing sneaks by our meters. If you demand tough-as-nails performance, with a keen eye on your bottom line, you can count on Master Meter Bottom Load Multi-Jets.

## LIVE LONG WITH A BRIGHT FUTURE

The Bottom Load Multi-Jet is an updated smart design to the classic “top load” multi-jet meter. These meters are designed with the future in mind for use in mobile and fixed network AMR/AMI data management systems. Choose an optional DIALOG 3G® Integrated AMR Register and put our ConnectionFree™ AMR Technology to work for you. 3G delivers powerful results with 4,000 read data logging and vigilant Revenue Impact Alerts™ monitoring for leaks, tamper, theft (*backflow*), and zero consumption. Our award-winning register design houses all vital components — encoder, RF transmitter, battery and antenna — safely within the register’s sealed stainless steel and tempered glass enclosure. We eliminated external wires, components and connections—the #1 cause of field related issues on competitive designs.

## FEATURES:

- \* Rugged Basket Strainer Built From Advanced Polymer Materials for Superior Wear Mitigation.
- \* Proprietary Design Produces Smooth, Laminar Flow Profile for Improved Accuracy.
- \* Accuracy Meets or exceeds the AWWA C-708 Standard. Optional NSF Certification Available.
- \* Optional 3G Integrated Register Delivers:
  - Revenue Impact Alerts - Leak, Tamper, Theft (*backflow*), and Zero Consumption
  - Rich 4,000 Read Data Logging Capabilities
  - Deploy District Management Areas/Zones (DMA/DMZ) Advanced Infrastructure Leak Management Programs

## SIZES AVAILABLE: 5/8", 3/4", 1"

## REGISTER OPTIONS:

- \* DIALOG 3G Integrated AMR Register
- \* DIALOG 3G LCD Interpreter™
- \* DIALOG 2G® Pit
- \* DIALOG 2G Indoor
- \* Direct Read

## READ:

- \* Direct Read/Manual
- \* Proximity/Touch - 2G
- \* Mobile Drive-By AMR - 3G
- \* Fixed Network AMI Solution - 3G (FN migratable using existing Mobile AMR infrastructure)

**Tough | Sustained Accuracy | Dependable | AMR/AMI Migratable with 3G**

## TECHNICAL SPECIFICATIONS:

**AWWA Standard** - Meets or exceeds all sections of AWWA Standard C-708, most recent revision;

**NSF/ANSI Standard 61** - Optional Standard 61 certified no-lead main case available.

**Register Sealing** - Direct read and DIALOG® registers are permanently sealed with a scratch resistant glass lens, stainless steel base and wrap-around gasket to prevent intrusion of dirt or moisture.

**Design/Operation** - Velocity-type flow measurement. Water that is evenly distributed by multiple converging inlet ports flows past an impeller in the measuring chamber, creating an impeller velocity directly proportional to water flow rate. The meter's register integrates that velocity into totalized flow. An inherent advantage for this design is unparalleled wear mitigation leading to sustained revenues. The register assembly is removable under line pressure permitting seamless, simplified upgrades in reading technology.

**Register Unit** - Registration available in U.S. gallons, cubic feet or cubic meters.

**Test Circle** - Large center sweep hand with one hundred (100) clearly marked gradations on the periphery of the dial face.

**Low Flow/Leak Indicator** - Center mounted indicator with high sensitivity resulting from direct one to one linkage to measuring element.

**Main Case** - Choice of waterworks bronze case of 81% copper composition, or, 86% copper, no lead bronze. All main cases incorporate externally threaded ends to aid installation.

**Measuring Chamber** - The measuring chamber housing and measurement element are built with an advanced synthetic polymer. This tough, non-hydrolyzing material ensures durable wear. The chamber design optimizes water flow, eliminating harsh turbulence for smooth, easy operation that minimizes bearing wear.

Measurement surfaces are not wear surfaces, providing sustained accuracy despite the presence of entrained solids in the water. A long-life, synthetic sapphire bearing serves as a wear surface with radially balanced water flows. The chamber housing is constructed in two parts to allow access to the impeller.

**Strainer** - A rugged, 360-degree advance polymer basket strainer protects the critical measuring element from damage. The unique strainer design smoothes the flow of water entering into the meter creating a laminar flow that is gentle on the meter's internal components. Tough materials operating in a smooth, balanced environment

enable the meters to perform more accurately over time. Utilities' investments last longer while capturing more revenue.

**Optional Bottom Plates** - Bronze, Cast Iron (CI), or Engineered Plastic.

**Magnetic Drive** - A reliable, direct magnetic drive provides linkage between measurement element and register. No intermediate gearing is required; no gearing is exposed to water.

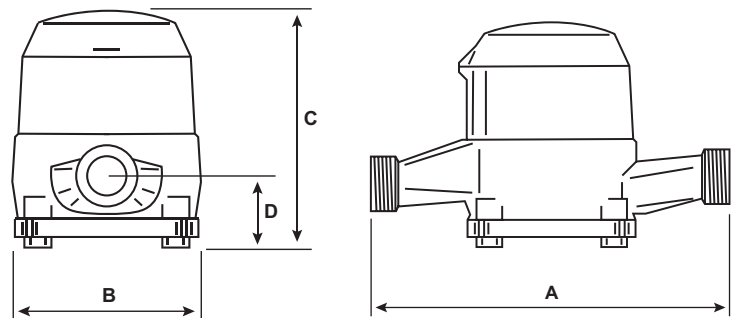
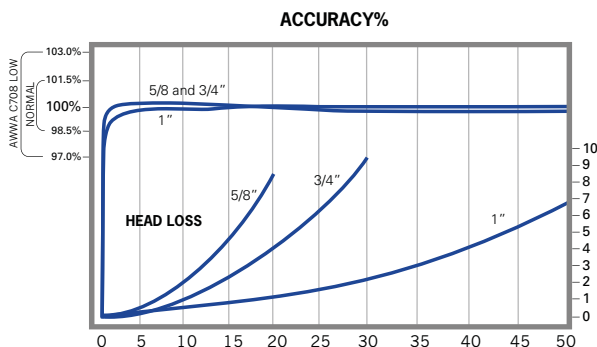
**Adjusting Port** - Sealed after factory calibration. Port is accessible for utility recalibration to compensate for inaccuracy in older meters without parts replacement.

**Register** - Standard Direct Read, DIALOG 2G and DIALOG 3G AMR System registers are available. Six wheel odometers are standard. Together, an integrated and migratable technology environment is attained; direct, proximity (touch), mobile AMR, and Fixed Network AMI.

**Tamper Detection** - The Master Meter Multi-jet adjusting port and register are concealed to prevent tampering and removal of the register. This design also provides a visual indication of tampering attempts.

METER OPERATING CHARACTERISTIC/DIMENSION	5/8"	3/4" x 7-1/2"	3/4" x 9"	3/4" x 9" x 1"	1"
Flow Rating (gpm)	20	30	30	30	50
Continuous Flow (gpm)	15	20	20	20	30
Normal Flow Range (gpm)	1-20	2-30	2-30	2-30	3-50
Extended Low Flow (gpm)	1/8	1/4	1/4	1/4	3/8
Maximum Working Pressure (psi)	150	150	150	150	150
Maximum Working Temperature (F)	120	120	120	120	120
Length (A below)	7-1/2"	7-1/2"	9"	9"	10-3/4"
Width (B below)	3-5/8"	3-5/8"	3-5/8"	3-5/8"	4"
Height, standard register with lid (C below)	5"	5"	5"	5"	5-1/4"
Height, bottom to center line (D below)	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-3/4"
Weight (lbs)	3.95	4.0	4.1	4.6	5.25
Packed To Carton	6	6	6	4	4
Carton Weight (lbs)	25.1	25.4	26	19.8	22.4

## ACCURACY AND HEAD LOSS CHART



### Master Meter, Inc.

101 Regency Parkway, Mansfield, TX 76063

Toll Free: 800-765-6518 • Main Line: 817-842-8000 • FAX: 817-842-8100

MASTERMETER.COM

Master Meter is neither associated with nor a distributor of metering products under the registered trademarks of AMCO, Badger, Hersey, Neptune and Sensus. ©2008 Master Meter, Inc. All rights reserved. DIALOG, INTERPRETER, and Master Meter are registered trademarks of Master Meter, Inc. Master Meter reserves the right to make modifications to the products described herein at any time and without notice. U.S. Patent Nos. 7,135,986; 6,819,292; 6,954,178; and others pending.

BLMJ0908

