INTERMEDIATE MULTI-JET

1-1/2" AND 2"

1.5" Bolted Flange Multi-Jet

2" Threaded Flange Multi-Jet

SMALL COMMERCIAL MEANS BIG BUSINESS

Maximize your revenue stream across a wide range of small commercial applications with our Intermediate Multi-jets. Capture accurate low flow readings where turbine meters fall short, with an easy to install meter that is tough enough to handle higher flows like a small turbine.

Choose a bolted oval flange or threaded design to meet your install needs and enjoy lifelong performance from a meter built to last while adapting to the future. Our unique, modular register design allows for hassle-free upgrades in new reading technologies. You can swap the brains of these meters long before their bodies need replacement. Smart design enables smart technology.

INFORMED BUSINESS DECISIONS — GOOD FOR YOU AND YOUR CUTOMERS.

Choose the optional DIALOG 3G® Integrated AMR Register and put our Connection*Free*™ AMR Technology to work for you and your business customers. 3G delivers powerful results with 4,000 read data logging that can define consumption profiles, pinpoint peaks and valleys in water usage and, when shared with your customers, can help them make informed decisions on water use that can impact conservation initiatives, and reduce customer billing complaints. In turn, 3G looks out for your utility's bottom line with vigilant Revenue Impact Alerts™ monitoring for leaks, theft (*backflow*), tamper, 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 maintenance related issues on competitive designs. Master Meter Intermediate Multi-jet meters are designed with the future in mind for use in mobile and fixed network AMR/AMI data management systems.

FEATURES & BENEFITS:

- High Accuracy on Low Flow (1.5 GPM on 1-1/2" MJ)
- Modular Register Design Allows for Easy Upgrades to Future Read Technologies
- Meets All Applicable AWWA Standards; Optional NSF Certification.
- Tamper Detection and Prevention
- Precision Engineered Flow Components For Smooth Operation and Sustained Accuracy Under Tough Conditions
- With Optional 3G Integrated Register:
  - Better Serve Business Customers Who Demand Accountability with Rich 4,000 Read Data Logging Capabilities (scalable / customer defined resolution)
  - Protect Your Utility's Bottom Line:
    - Revenue Impact Alerts - Leak, Tamper, Theft (*backflow*) and Zero Consumption
    - Deploy District Metering Areas or Zones (DMA/DMZ) Advanced Infrastructure Leak Management Programs

REGISTER OPTIONS:

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

READ:

- Direct Read/Manual
- Proximity/Wand Read - 2G
- Mobile Drive-By AMR - 3G
- Fixed Network AMI Solution - Utilizes the 3G technology backbone with simultaneous Mobile AMR and Fixed Network AMI data collection capabilities.

SIZES AVAILABLE:
1.5" & 2"

Compact Size | Enhanced Low Flow Sensitivity | Easily Upgradeable | AMR/AMI Migratable with 3G

MASTER METER
Reading the Future™

TECHNICAL SPECIFICATIONS:

AWWA Standard - Meets or exceeds all sections of Standard ANSI / AWWA C708, most recent revision for cold water multi-jet meters with AWWA bronze main cases.

NSF/ANSI Standard 61 -Optional EnviroBrass unleaded main case available.

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 exceptionally low head loss for improved infrastructure efficiencies and unparalleled wear mitigation. The register assembly is removable under line pressure permitting seamless, simplified upgrades in reading technology.

Main Case - Choice of waterworks bronze case of 81% copper composition or EnviroBrass® II, 86% copper, unleaded bronze. Main case incorporates either compact externally threaded ends, or bolted flanged connections.

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. The chamber housing is constructed in two parts to allow access to the impeller.

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.

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 (wand), mobile AMR, and Fixed Network AMI.

Register Sealing - All Direct read and DIALOG® registers are IP-68 rated, permanently sealed with a scratch resistant glass lens, stainless steel base and wrap-around gasket to prevent intrusion of dirt or moisture.

Register Units - Registration available in either 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.

Magnetic Drive - A reliable, direct magnetic drive provides linkage between measuring element and register so that no gearing is exposed to water.

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

Low Flow/Leak Indicator -Clearly visible leak indicator with high sensitivity resulting from direct one-to-one linkage to the measuring element.

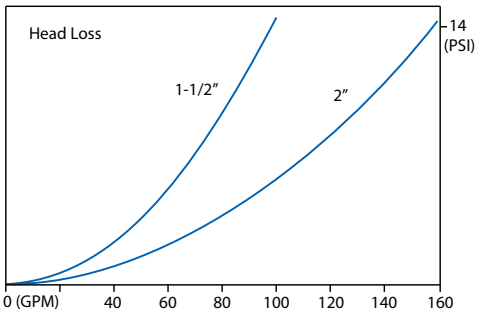
Strainer -A rugged, 360-degree polymer basket strainer protects the critical measuring element from damage.

Adjusting Port Detection -The Master Meter Multi-jet adjusting port is sealed after factory calibration to prevent tampering and provides a visual indication of tampering attempts. Port is accessible for utility recalibration to compensate for inaccuracy in older meters without parts replacement.

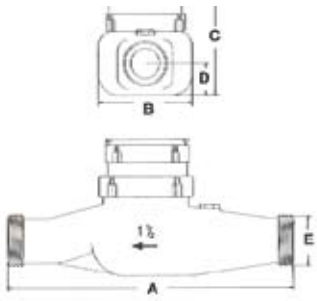
MULTI-JET WATER METER (1-1/2" AND 2")

METER OPERATING CHARACTERISTIC / DIMENSION	1-1/2" Threaded	1-1/2" Flanged	2" Threaded	2" Flanged
Flow Rating (gpm)	100	100	160	160
Continuous Flow (gpm)	75	75	120	120
Normal Flow Range (gpm)	5-100	5-100	8-160	8-160
Low Flow (gpm)	1-1/2	1-1/2	2	2
Maximum Working Pressure (psi)	150	150	150	150
Maximum Working Temperature (°F)	110	110	110	110
Length (A below)	12-5/8"	13"	15-1/4"	17"
Width (B below)	5-3/8"	5-3/8"	5-3/4"	5-3/4"
Height, standard register with lid (C below)	6-3/4"	6-3/4"	7-5/8"	7-5/8"
Height with DIALOG register	7-1/2"	7-1/2"	8-3/8"	8-3/8"
Height, bottom to center line (D below)	1-3/4"	1-3/4"	2-3/4"	2-3/4"
Meter Casing Spuds, Nominal Threadsize* (E below)	2"	N/A	2-1/2"	N/A
Weight (lbs)	11	12	20	24
Packed to Carton	1	1	1	1
Carton Weight (lbs)	12	14	22	26

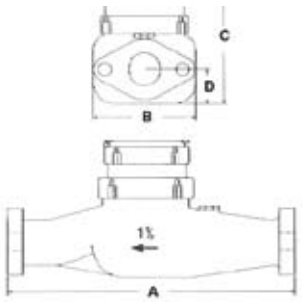
HEAD LOSS CURVES



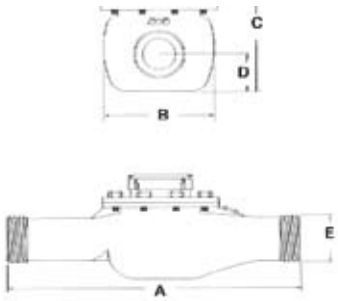
1-1/2 Threaded-End Multi-Jet



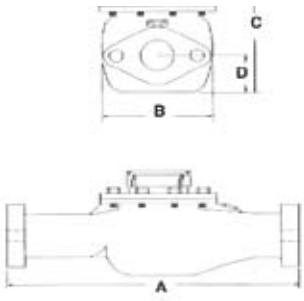
1-1/2 Flanged-End Multi-Jet



2" Threaded-End Multi-Jet



2" Flanged-End Multi-Jet



Master Meter, Inc.
101 Regency Parkway, Mansfield, TX 76063
Toll Free: 800-765-6518 • Main Line: 817-842-8000 • FAX: 817-842-8100
www.mastermeter.com

MASTER METER

Reading the Future™

575039 -11- 07