

Master Meter's Multi-Jet meter exceeds the AWWA C708 standard. With sensitivity to measure water flowing as low as 1/8 gallon per minute and accuracy unaffected by common particulates and build-up that would freeze other types, you can count on our Multi-Jet technology.

Technical Specifications:

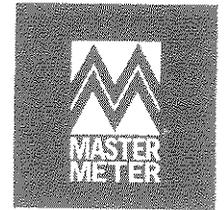
AWWA Standard - Meets or exceeds all sections of AWWA Standard C-708, most recent revision. Compliant with SDWA, NSF ANSI 372 and NSF ANSI 61 standards.

Register - Standard Direct Read, DIALOG® 3G AMR System registers, AccuLinx Encoder, and IP 68 Electrical Output registers available. Together, an integrated and migratable technology environment is attained; direct, proximity (touch), mobile AMR, and Fixed Network AMI.

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.

Features & Benefits:

- Rugged basket strainer built from advanced polymer materials for superior wear mitigation.
- Proprietary design produces smooth, laminar flow profile for improved accuracy
- Award-winning DIALOG 3G register design houses all vital components — encoder, RF transmitter, battery and antennae — safely within the register's stainless steel and tempered glass enclosure. Free of external wires, components and connections — the #1 cause of field related issues on competitive designs.
- Assures compliance with the Safe Drinking Water Act (SDWA).
- Measures with only one moving part that is hydro-dynamically balanced on a sapphire bearing to preserve accuracy and promote a positive bottom line.
- Exceptional performance in passing entrained solids and operating in environments with high mineral content.
- Clean, elegant measurement design is highly sensitive to leaks and low flow while limiting wear for excellent revenue protection.

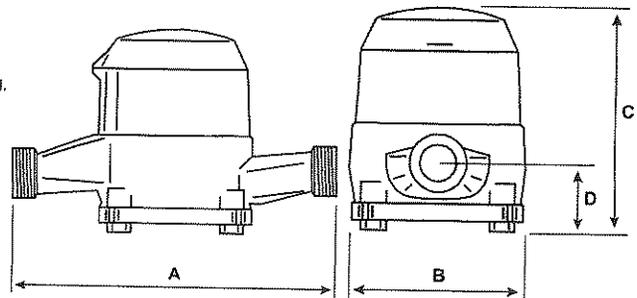
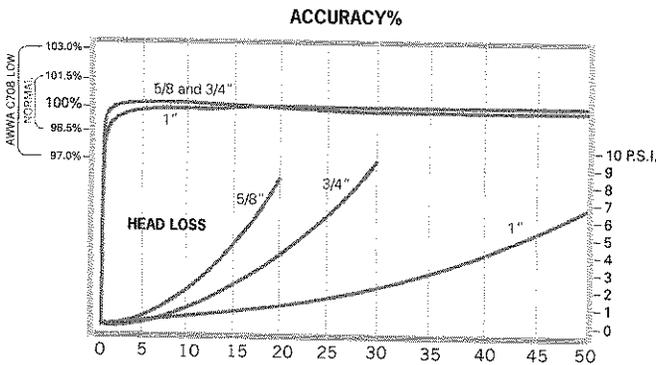


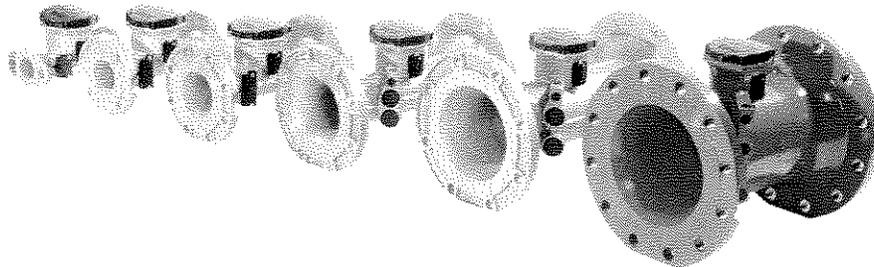
Technical Specs (Cont'd):

- **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 (available on Direct Read and DIALOG 3G registers).
- **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.
- **Strainer** - A rugged, 360-degree advance polymer basket strainer protects the critical measuring element from damage. The unique strainer design smooths 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.
- **Measuring Chamber** - The measuring chamber housing and measurement element are built with an advanced synthetic polymer. 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. Bottom plates available in Bronze, Cast Iron (CI) or Engineered Plastic.

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)	1/4	1/2	1/2	1/2	3/4
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





Octave brings the latest in ultrasonic metering technology to Commercial/Industrial (C&I) water meters and puts precise measurement where the real flows exist. An excellent alternative to mechanical compound, single-jet, floating ball, fire-service type and turbine meters, Octave excels at maintaining sustained accuracy for the life of the meter while providing smart AMR capabilities.

Technical Specifications:

Working Pressure - 175 PSI

Liquid Temperature - 32° - 122 °F

Metrological Characteristics - Meets ANSI/AWWA Standard C750-10, ISO 4064 rev. 2005

Configuration - Compact-Display built into unit

Power Source - 2 x D Size Lithium Thionyl Chloride batteries - 10 year warranted life time

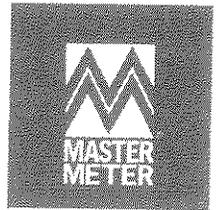
Environmental Protection - NEMA 6P+ (IP68+), Ambient operation temp. -13 °F / +131 °F for the display

Display Units - Multi line 9 digit LCD (Programmable USG, Cubic Feet, Cubic Meters, Acre Feet for volume and GPM, Lt/s, or M³/h for rate of flow)

Output - Programmable single/dual open drain digital pulse, dry contact digital pulse, encoder OR externally powered loop 4-20 mA

Features & Benefits:

- Flow sensitivity starting as low as 1/16 GPM
- Grade 316 Stainless Steel or Epoxy Coated Ductile Iron body design provides full compliance with ANSI/NSF 372 (AB1953 or NSF61G)
- No moving parts. Minimal flow intrusion. Enduring accuracy.
- No required strainer
- Wide beam ultrasonic measurement sensors for high accuracy and reliable operation
- Industry standard communication protocol for integration with most third-party AMR/AMI systems
- Active leak, theft, backflow, meter damage/tamper, rate of flow, and battery life indication
- Detailed LCD display features immediate reporting and visual indicators for 8 critical conditions
- Ruggedized NEMA 6P/IP-68+ construction; fully submersible design
- Designed to meet standards for both North American and International C&I water meters
- Optional flow measurements; Forward Only, Net Volume or Alternating Display (Forward and Reverse Consumption displayed separately)



Performance Data

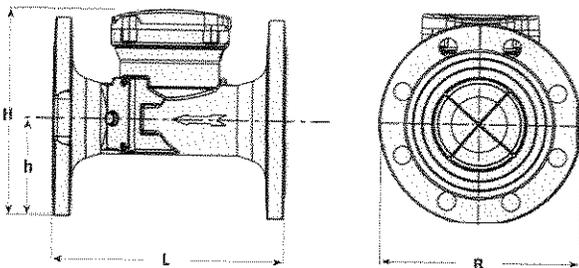
Octave Nominal Size Inch (mm)	† Typical Starting Flow GPM (L/s)	Extended Low Flow 95% - 105% Accuracy GPM (L/s)	Normal Flow Range 98.5% - 101.5% Accuracy GPM (L/s)	‡ Continuous Safe Max Flow GPM (L/s)	Linearity Range +/- 0.5% Maximum Deviation GPM (L/s)
2" (50mm)	1/16 (.004)	1/4 (.016)	1/2 - 250 (.032 - 15.77)	250 (15.77)	4 - 200 (.25 - 12.62)
3" (80 mm)	1/16 (.004)	1/2 (.032)	1 - 500 (.06 - 31.54)	500 (31.54)	5 - 350 (.32 - 22.08)
4" (100 mm)	1/16 (.004)	3/4 (.047)	1-1/2 - 1,000 (.09 - 63.09)	1000 (63.09)	15 - 700 (.94 - 44.16)
6" (150 mm)	3/4 (.047)	2 (.13)	3 - 1,600 (.19 - 100.94)	1,600 (100.94)	20 - 1,150 (1.26 - 72.55)
8" (200 mm)	3/4 (.047)	4 (.25)	5 - 2,800 (.32 - 176.65)	2,800 (176.65)	50 - 2,000 (3.15 - 126.18)
10" (250 mm)	2.5 (.16)	8 (.50)	14 - 5,500 (.88 - 346.99)	5,500 (346.99)	400 - 4,000 (25.24 - 252.36)
12" (300 mm)	2.5 (.16)	8 (.50)	14 - 5,500 (.88 - 346.99)	5,500 (346.99)	400 - 4,000 (25.24 - 252.36)

† Starting flows vary per meter but can go as low as the above listed flow rates.

‡ Continuous Safe Max Flow ranges listed for the Octave are for accurate flow measurement only and do not limit the Octave from meeting the Short-term Deluge Flow for fire services.

Dimensions

Model	Octave							
	2" SS (50 mm)	2" DI (50 mm)	3" (80 mm)	4" (100 mm)	6" (150 mm)	8" (200 mm)	10" (250 mm)	12" (300 mm)
L - Length	10" (250 mm)	17" (432 mm)	12" (305 mm)	14" (356 mm)	18" (457 mm)	20" (508 mm)	17 3/4" (451 mm)	19 3/4" (502 mm)
B - Width	5 3/4" (146 mm)	5 3/4" (146 mm)	7 1/2" (190 mm)	9" (229 mm)	11" (280 mm)	13 1/2" (343 mm)	16" (406 mm)	19 3/4" (502 mm)
H - Height	6 3/4" (172 mm)	6 3/4" (172 mm)	8 1/2" (216 mm)	9 7/8" (250 mm)	10 7/8" (276 mm)	12 7/8" (327 mm)	16 1/2" (419 mm)	19 3/4" (502 mm)
h - Height	2 1/8" (54 mm)	2 1/8" (54 mm)	3 1/2" (90 mm)	4 1/2" (115 mm)	5 1/8" (130 mm)	6 3/8" (162 mm)	8" (203 mm)	9 7/8" (251 mm)
Weight - Ductile Iron	N/A	24 lbs. (11 kg)	36 lbs. (16 kg)	48.5 lbs. (22 kg)	76 lbs. (34 kg)	108 lbs. (49 kg)	150 lbs. (68 kg)	210 lbs. (96 kg)
Weight - Stainless Steel	15 lbs (7 kg)	N/A	28 lbs (13 kg)	40 lbs. (18 kg)	62 lbs. (28 kg)	88 lbs. (40 kg)	N/A	N/A



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NOTE — For Performance charts please see Engineering Document - Octave | Version 8.13