

# Advanced Operational Insights and Accuracy with No Maintenance

## Neptune® MACH 10® Ultrasonic Meter



The MACH 10® ultrasonic water meter features solid state metrology with no degradation of accuracy over time for enhanced revenue potential. The meter features embedded temperature monitoring with proactive freeze warning capabilities as well as an option for pressure monitoring for operational insights and quality of service. With a corrosion-resistant, lead free, high-copper alloy maincase, the MACH 10 is built to withstand demanding service conditions and deliver sustained accuracy over the life of the meter.

- Sizes 5/8", 3/4", and 1"
- Provides temperature data and alarms for proactive monitoring
- Extended low-flow range for superior leak detection
- Versatile mounting with both horizontal and vertical installation
- Certified to UL 327B (3/4", 1") for residential fire service applications
- No moving parts eliminates added cost of meter maintenance
- Optional pressure sensor enables proactive infrastructure monitoring

## Specifications

AWWA C715 Compliant

NSF/ANSI 61 Certified

UL327B Certified

(Optional on ¾", 1")

### Application

- Potable water
- Reclaim water
- Residential fire service (combo or standalone meter service lines)

### Maximum Operating Water Pressure

- 175 psi

### Operating Water Temperature Range

- +33°F to +122°F (+0.5°C to +50°C)

### Environmental Conditions

- Operating temperature: +14°F to +149°F (-10°C to +65°C)
- Storage temperature: -40°F to +158°F (-40°C to +70°C)

## Options

Embedded pressure monitoring (PSI, kPa)

## System Compatibility

- Compatible with AMR/AMI systems using either Neptune or Sensus protocol.
- Compatible with Neptune's R900, R900 LoRaWAN, and Cellular Endpoint.
- Also available as a MACH 10<sup>®</sup>)R900i<sup>™</sup> and LoRaWAN<sup>®</sup> MACH 10<sup>®</sup>)R900i<sup>™</sup> for an integrated radio solution or as a MACH 10<sup>®</sup>)TC for Sensus TouchCoupler connectivity.

## Warranty

- Neptune provides a limited warranty for performance, materials, and workmanship. See warranty statement for details.

## Operating Characteristics

Meter Size	Normal Operating Range @ 100% Accuracy (+/- 1.5%)	AWWA C715 Standard Type 1	Extended Low Flow @ 100% Accuracy (+/- 3%)
5/8"	0.10 to 25 U.S. gpm 0.02 to 5.68 m <sup>3</sup> /h	0.2 to 20 U.S. gpm 0.05 to 4.54 m <sup>3</sup> /h	0.05 U.S. gpm 0.01 m <sup>3</sup> /h
¾"	0.10 to 35 U.S. gpm 0.02 to 7.95 m <sup>3</sup> /h	0.5 to 30 U.S. gpm 0.11 to 6.81 m <sup>3</sup> /h	0.05 U.S. gpm 0.01 m <sup>3</sup> /h
1"	0.40 to 55 U.S. gpm 0.09 to 12.49 m <sup>3</sup> /h	0.75 to 50 U.S. gpm 0.17 to 11.35 m <sup>3</sup> /h	0.25 U.S. gpm 0.06 m <sup>3</sup> /h

## Registration

High Resolution (8-digit reading)	
0.1	U.S. Gallons
0.1	Imperial Gallons
0.01	Cubic Feet
0.001	Cubic Metres

## Available Units of Measure

Consumption	Rate
Gallons	GPM
Cubic Feet	GPM
Cubic Metres	LPM
Cubic Meters (International)	LPM
Imperial Gallons	GPM
Acre-Feet*	GPM
Litres*	LPM
Kilolitres*	LPM

\*Unit cannot be displayed on LCD

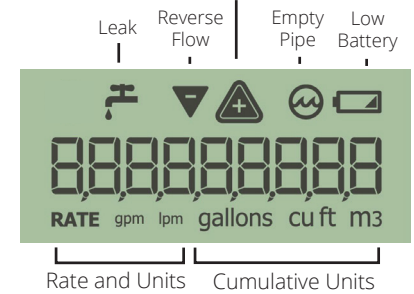
## Dimensions

Meter Size	Length	Height	Threads (NPSM)
5/8"	7½"	3¾"	¾" - 14"
5/8" x ¾"	7½"	3¾"	1" - 11½"
¾"	9"	3¾"	1" - 11½"
¾" SL	7½"	3¾"	1" - 11½"
¾" x 1"	9"	3¾"	1¼" - 11½"
1"	10¾"	3¼"	1¼" - 11½"
1" x 1¼"	10¾"	3¼"	1½" - 11½"

## LCD Display

9-digit display for extra resolution on manual reads.

Forward Flow + Warning for Excessive Flow



## Pressure Loss

This chart shows typical meter performance. Individual results may vary.

