

Guaranteed Accuracy, Efficiency, and Integration

Neptune® MACH 10®)R900i™



The Neptune® MACH 10®)R900i™ is designed as an all-in-one package — pairing the MACH 10® ultrasonic meter with an integrated R900® System endpoint — adding simplicity and efficiency to your metering program. The durable, no-maintenance MACH 10, combined with reliable, integrated network connectivity, accurately measures consumption and delivers data to optimize system performance, improve customer service, maximize revenue, and support water conservation initiatives all right out of the box.

- Eliminate the hassle of endpoint programming and wiring
- Flexible meter reading options with simultaneous AMR/AMI capabilities
- Peace of mind with access to 96 days of stored history
- Prevent tampering and environmental damage with no external wires
- Improve quality of service and billing accuracy with detailed consumption data
- Reduce inventory with an all-in-one meter and endpoint package
- Eliminate meter maintenance with cutting-edge ultrasonic technology and a durable maincase
- Measure every drop with improved accuracy and low flow detection
- Pinpoint trouble areas quickly with flags that identify leaks, low battery, reverse flow, and tampering
- Improve installation efficiency with a lead free, bronze maincase that can be installed in either horizontal or vertical applications



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#winyourday

Endpoint Specifications

Electrical Specifications

- Endpoint power: lithium battery with capacitor

Transmitter Specifications:

- Two-way endpoint
- Transmissions
 - Standard mobile message
 - Standard fixed network message
 - LoRa® fixed network message (only on LoRaWAN® model)
- Transmitter Channels:
 - 50 (R900 mobile and fixed network messages)
 - 64 (LoRa fixed network message)
- FCC Verification: Part 15.247
 - Channel Frequency: 902 to 928 MHz
 - Frequency hopping, spread-spectrum)
- Meter Reading & Flag Interval:
 - Every 15 minutes
 - Leak, Backflow, Tamper, Excessive Flow, Low Battery
- Data Logging Interval: 96 days of hourly data

Environmental Conditions

- Operating Temperature: +15°F to +149°F (-10°C to +65°C)
- Storage Temperature: -40°F to +158°F (-40°C to +70°C)
- Operating Humidity: 100% condensing, fully submersible

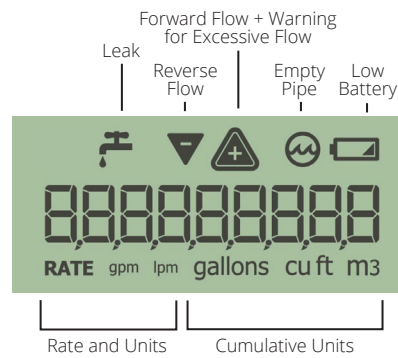
Materials

- Register Housing: Engineer Polymer
- Lens: Tempered Glass

Antennas

- Internal antenna (not available on LoRaWAN)
- Optional through-the-lid antenna
 - 18" coax
 - 6' coax
 - 20' coax

LCD Display



Registration

High Resolution (8-digit reading)

MACH 10 Size	G	ft³	m³
5/8", 3/4", 1"	0.1	0.01	0.001
1 1/2", 2", 3", 4"	1	0.1	0.01
6", 8", 10", 12"	10	1	0.1

Operating Characteristics

Meter Size	Extended Low Flow @ 100% Accuracy (U.S. gpm ± 3%)	Normal Operating Range @ 100% Accuracy (U.S. gpm ± 1.5%)	Safe Maximum Operating Capacity (U.S. gpm)	
			Normal Operation	Fire Service
5/8"	0.05	0.10 to 25	25	N/A
3/4"	0.05	0.10 to 35	35	35
1"	0.25	0.40 to 55	55	55
1 1/2"	0.30	0.80 to 125	125	125
2"	0.50	1.5 to 160	160	160
3"	0.50	0.75 to 500	500	420
4"	0.75	1.5 to 1250	1250	1100
6'	1.0	2.0 to 2000	2000	1800
8"	4.0	6.0 to 4000	4000	4000
10"	6.0	10.0 to 6500	6500	6500
12"	8.0	12.0 to 8000	8000	6500

Meter Specifications

- See Neptune MACH 10 product sheets for detailed meter specifications

Options

Compatibility

- Available for 5/8"-12" MACH 10
- Handhelds with belt clip transceiver – mobile RF
- Mobile data collector RF
- Gateway – fixed network RF
- LoRaWAN gateway – fixed network

Units of Measure

- U.S. Gallons, Cubic Feet, Imperial Gallons, Cubic Metres

Warranty

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



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