



A PRODUCT SHEET OF NEPTUNE TECHNOLOGY GROUP

# T-10 Meter

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

Every T-10® water meter meets or exceeds the latest AWWA C700 Standard. Its nutating disc, positive displacement principle has been time-proven for accuracy and dependability since 1892, ensuring maximum utility revenue.

## Construction

The T-10 water meter consists of three major assemblies: a register, a lead free, high-copper alloy maincase, and a nutating disc measuring chamber.

The T-10 meter is available with a variety of register types. For reading convenience, the register can be mounted in one of four positions on the meter.

The corrosion-resistant, lead-free, high-copper alloy maincase will withstand most service conditions; internal water pressure, rough handling, and in-line piping stress.

The innovative floating chamber design of the nutating disc measuring element is unaffected by meter position or in-line piping stresses while the unique chamber seal extends the low-flow accuracy by sealing the chamber outlet port to the maincase outlet port. The nutating disc measuring element utilizes corrosion-resistant materials throughout and a thrust roller to minimize wear.

## Warranty

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

## Guaranteed Systems Compatibility

All T-10 water meters are guaranteed adaptable to our ARB®V, ProRead™ (ARB VI) AutoDetect, ProCoder™, E-CODER® (ARB VII), E-CODER®)R900i™, E-CODER®)R450i™, ProCoder™)R900i™, TRICON®/S, TRICON/E®3, and Neptune meter reading systems without removing the meter from service.

## Systems Compatibility

Adaptability to all present and future systems for flexibility is available only with Neptune's ARB® Utility Management Systems™.



## KEY FEATURES

### REGISTER

Magnetic-driven, low-torque registration ensures accuracy

Impact-resistant register

High-resolution, low-flow leak detection

Bayonet-style register mount allows in-line serviceability

Tamperproof seal pin deters theft

Date of manufacture, size, and model stamped on dial face

### LEAD FREE MAINCASE

Made from lead free, high-copper alloy

NSF/ANSI 372, NSF/ANSI 61

Lifetime guarantee

Resists internal pressure stresses and external damage

Handles in-line piping variations and stresses

Lead free, high-copper alloy provides residual value vs. plastic or composite

Electrical grounding continuity

### NUTATING DISC MEASURING CHAMBER

Positive displacement

Widest effective flow range for maximum revenue

Proprietary polymer materials maximize long-term accuracy

Floating chamber design is unaffected by meter position or in-line piping stresses

## Specifications

- NSF/ANSI 372, NSF/ANSI 61
- National Type Evaluation Program (NTEP) certification

### Application

- Cold water measurement of flow in one direction in residential service applications

### Maximum Operating Water Pressure

- 150 psi (1034 kPa)

### Maximum Operating Water Temperature

- 80°F

### Measuring Chamber

- Nutating disc technology design made from proprietary synthetic polymer

## Options

### Sizes

- $\frac{5}{8}$ " ,  $\frac{5}{8}$ " x  $\frac{3}{4}$ "
- $\frac{3}{4}$ " ,  $\frac{3}{4}$ " SL,  $\frac{3}{4}$ " x 1"
- 1" , 1" x 1 $\frac{1}{4}$ "

### Units of Measure:

- U.S. gallons, imperial gallons, cubic feet, cubic metres

### Register Types

- Direct reading: bronze box and cover (standard)

### Remote Reading:

- ProRead, ProCoder, E-CODER, E-CODER)R900i, E-CODER)R450i, ProCoder™)R900i™, TRICON/S, TRICON/E3

- Reclaim

### Bottom Caps

- Synthetic polymer ( $\frac{5}{8}$ " only)
- Cast iron
- Lead free, high-copper alloy

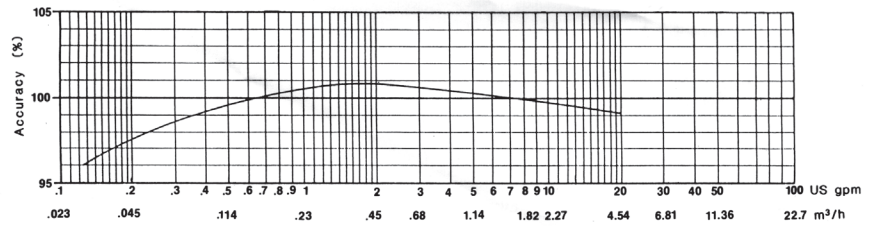
### Connections

- Lead free, high-copper alloy, straight or bent

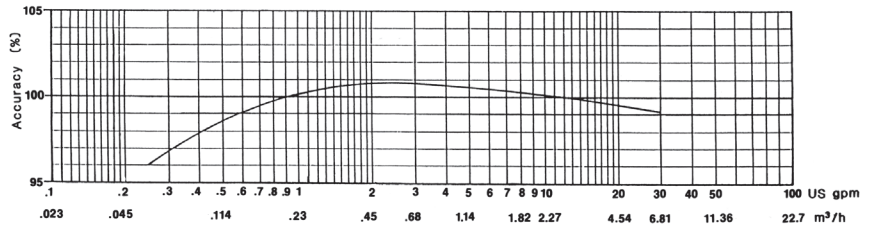
### Environmental Conditions

- Operating temperature:  
+33° F to +149° F (0° C to +65° C)
- Storage temperature:  
+33° F to +158° F (0° C to +70° C)

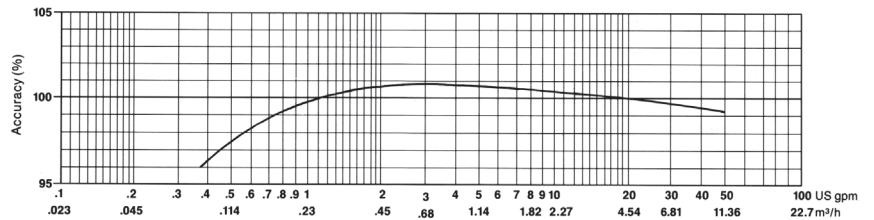
## $\frac{5}{8}$ " ACCURACY



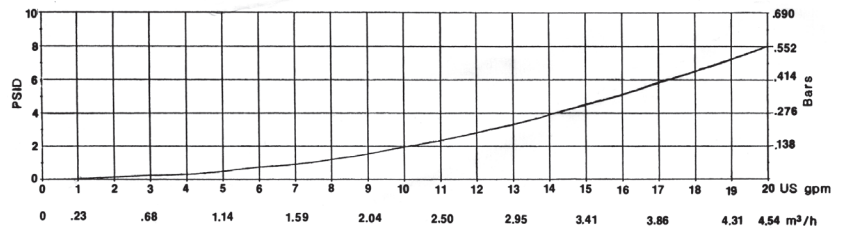
## $\frac{3}{4}$ " ACCURACY



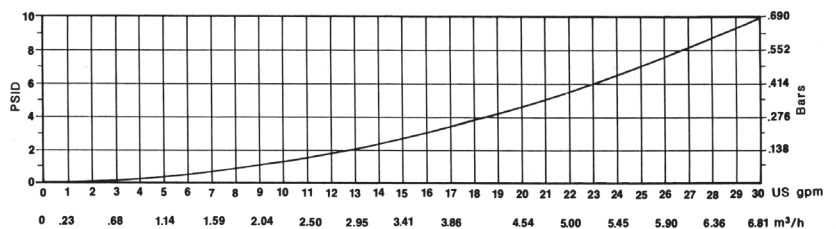
## 1" ACCURACY



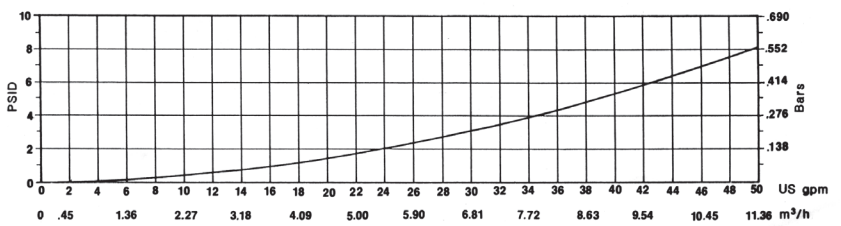
## $\frac{5}{8}$ " PRESSURE LOSS



## $\frac{3}{4}$ " PRESSURE LOSS



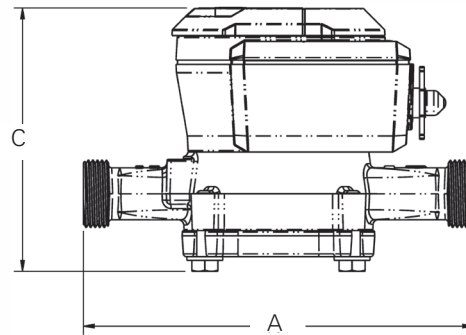
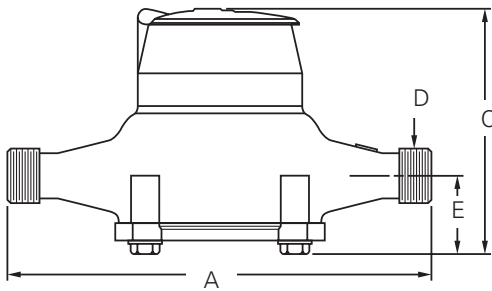
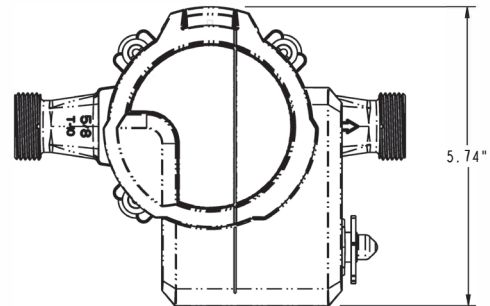
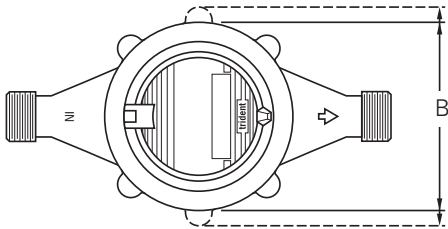
## 1" PRESSURE LOSS



These charts show typical meter performance. Individual results may vary.

## Dimensions

Meter Size	A	B	C					D-	E-	Weight lbs/kg
	in/mm	in/mm	Std. in/mm	ARB in/mm	ProCoder™ or E-CODER®	ProCoder™) R900i™ or ProCoder™) R450i™	E-CODER®) R900i™ or E-CODER®) R450i™	NPSM Thread	in/mm	
5/8"	7 1/2 191	3 5/8 92	4 3/8 111	5 1/4 133	5 1/4 133	5 1/4 133	5 1/4 133	3/4" - 14"	1 1/2 38	3 1/4 1.4
5/8" x 3/4"	7 1/2 191	3 5/8 92	4 3/8 111	5 1/4 133	5 1/4 133	5 1/4 133	5 1/4 133	1" - 11 1/2"	1 1/2 38	3 3/8 1.5
Pre 2011 5/8"	7 1/2 191	3 5/8 92	4 7/8 124	5 1/2 146	5 1/2 139	5 1/2 139	5 1/2 139	3/4" - 14"	1 5/8 41	3 3/4 1.7
Pre 2011 5/8" x 3/4"	7 1/2 191	3 5/8 92	4 7/8 124	5 1/2 146	5 1/2 139	5 1/2 139	5 1/2 139	1" - 11 1/2"	1 5/8 41	4 1.8
3/4"	9 229	4 3/8 111	5 1/2 140	6 1/4 159	6 1/4 159	6 1/4 159	6 1/4 159	1" - 11 1/2"	1 7/8 48	6 2.7
3/4" SL	7 1/2 911	4 3/8 111	5 1/2 140	6 1/4 159	6 1/4 159	6 1/4 159	6 1/4 159	1" - 11 1/2"	1 7/8 48	5 1/2 2.5
3/4" x 1"	9 229	4 3/8 111	5 1/2 140	6 1/4 159	6 1/4 159	6 1/4 159	6 1/4 159	1 1/4" - 11 1/2"	1 7/8 48	6 1/2 2.9
1"	10 3/4 273	6 1/2 165	6 3/8 162	7 178	7 178	7 178	7 178	1 1/4" - 11 1/2"	2 1/8 54	9 3/4 4.4
1" x 1 1/4"	10 3/4 273	6 1/2 165	6 3/8 162	7 178	7 178	7 178	7 178	1 1/2" - 11 1/2"	2 1/8 54	10 1/4 4.6



## Operating Characteristics

Meter Size	Normal Operating Range @ 100% Accuracy (+/- 1.5%)	AWWA Standard	Low Flow @ 95% Accuracy
5/8"	1/2 to 20 US gpm 0.11 to 4.55 m <sup>3</sup> /h	1 to 20 US gpm 0.23 to 4.5 m <sup>3</sup> /h	1/8 US gpm 0.03 m <sup>3</sup> /h
3/4"	3/4 to 30 US gpm 0.17 to 6.82 m <sup>3</sup> /h	2 to 30 US gpm 0.45 to 6.8 m <sup>3</sup> /h	1/4 US gpm 0.06 m <sup>3</sup> /h
1"	1 to 50 US gpm 0.23 to 11.36 m <sup>3</sup> /h	3 to 50 US gpm 0.68 to 11.4 m <sup>3</sup> /h	3/8 US gpm 0.09 m <sup>3</sup> /h

## Registration

ProRead Registration (per sweep hand revolution)		5/8"	3/4" & 1"
10	US Gallons	√	√
10	Imperial Gallons	√	√
1	Cubic Foot	√	√
0.1	Cubic Metre	√	√
Register Capacity ProRead, ProCoder, and E-CODER		5/8"	3/4" & 1"
10,000,000	US Gallons	√	√
10,000,000	Imperial Gallons	√	√
1,000,000	Cubic Feet	√	√
100,000	Cubic Metres	√	√
ProCoder and E-CODER High Resolution (8-digit reading)		5/8"	3/4" & 1"
0.1	US Gallons	√	√
0.1	Imperial Gallons	√	√
0.01	Cubic Feet	√	√
0.001	Cubic Metres	√	√



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neptunetg.com

Neptune Technology Group  
1600 Alabama Highway 229  
Tallahassee, AL 36078  
800-633-8754 f 334-283-7293