

#### 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 of 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®)R900*i*™, E-CODER®)R450*i*™, ProCoder™)R900*i*™, 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  $ARB^{\circ}$  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

- · 5/8", 5/8" x 3/4"
- · 3/4", 3/4" SL, 3/4" x 1"
- 1", 1" x 1<sup>1</sup>/<sub>4</sub>"

#### 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 (5/8" only)
- Cast iron
- Lead free, high-copper alloy

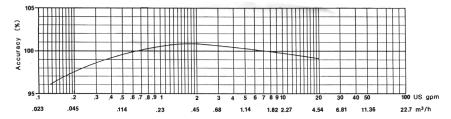
## Connections

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

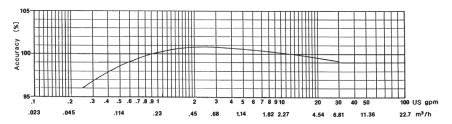
#### **Environmental Conditions**

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

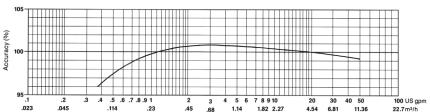
#### 5/8" ACCURACY



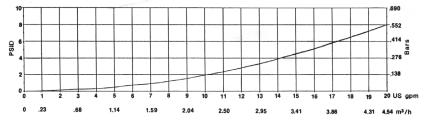
#### 3/4" ACCURACY



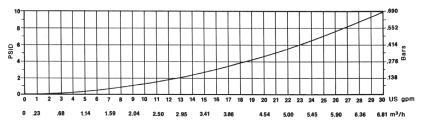
## 1" ACCURACY



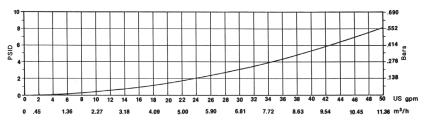
### 5/8" PRESSURE LOSS



## 3/4" PRESSURE LOSS



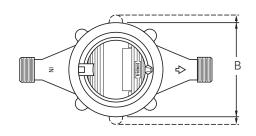
### 1" PRESSURE LOSS

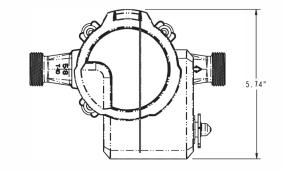


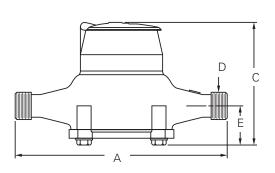
These charts show typical meter performance. Individual results may vary.

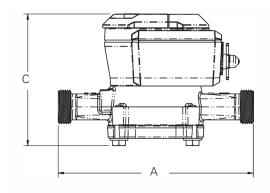
## **Dimensions**

	A B C					D-	E-			
Meter Size	in/ mm	in/ mm	Std. in/mm	ARB in/mm	ProCoder™ or E-CODER®	ProCoder™) R900 <i>i</i> ™ or ProCoder™) R450 <i>i</i> ™	E-CODER®) R900 <i>i</i> ™or E-CODER®) R450 <i>i</i> ™	NPSM Thread	in/ mm	Weight lbs/kg
5/8"	7½ 191	3% 92	4¾ 111	5¼ 133	5¼ 133	5¼ 133	5¼ 133	¾" - 14"	1½ 38	3¼ 1.4
%" × ¾"	7½ 191	3% 92	4¾ 111	5¼ 133	5¼ 133	5¼ 133	5¼ 133	1" - 11½"	1½ 38	3¾ 1.5
Pre 2011 %"	7½ 191	3% 92	4% 124	5½ 146	5½ 139	5½ 139	5½ 139	3/4" - 14"	1% 41	3¾ 1.7
Pre 2011 %" x ¾"	7½ 191	3% 92	4% 124	5½ 146	5½ 139	5½ 139	5½ 139	1" - 11½"	1% 41	4 1.8
3/4"	9 229	4% 111	5½ 140	6¼ 159	6¼ 159	6¼ 159	6¼ 159	1" - 11½"	1% 48	6 2.7
³⁄4" SL	7½ 911	4% 111	5½ 140	6¼ 159	6¼ 159	6¼ 159	6¼ 159	1" - 11½"	1% 48	5½ 2.5
<sup>3</sup> ⁄ <sub>4</sub> " x 1"	9 229	4% 111	5½ 140	6¼ 159	6¼ 159	6¼ 159	6¼ 159	11/4" - 111/2"	1% 48	6½ 2.9
1"	10¾ 273	6½ 165	6% 162	7 178	7 178	7 178	7 178	11/4" - 111/2"	21⁄8 54	9¾ 4.4
1" x 1¼"	10¾ 273	6½ 165	6% 162	7 178	7 178	7 178	7 178	1½" - 11½"	21⁄8 54	10¼ 4.6









## **Operating Characteristics**

Meter Size	Normal Operating Range @ 100% Accuracy (+/- 1.5%)	AWWA Standard	Low Flow @ 95% Accuracy	
5/8"	½ to 20 US gpm	1 to 20 US gpm	¹⁄₃ US gpm	
	0.11 to 4.55 m³/h	0.23 to 4.5 m <sup>3</sup> /h	0.03 m³/h	
3/4"	<sup>3</sup> / <sub>4</sub> to 30 US gpm	2 to 30 US gpm	¹¼ US gpm	
	0.17 to 6.82 m <sup>3</sup> /h	0.45 to 6.8 m³/h	0.06 m³/h	
1"	1 to 50 US gpm	3 to 50 US gpm	³/₅ US gpm	
	0.23 to 11.36 m <sup>3</sup> /h	0.68 to 11.4 m³/h	0.09 m³/h	

## Registration

ProRead Registr (per sweep han		5%"	¾" & 1"
10	US Gallons	√	√
10	Imperial Gallons	√	√
1	Cubic Foot	√	√
0.1	Cubic Metre	<b>√</b>	√
Register Capaci ProRead, ProCo	ty der, and E-CODER	5/8″	³/₄" <b>&amp;</b> 1"
10,000,000	US Gallons	√	√
10,000,000	Imperial Gallons	√	√
1,000,000	Cubic Feet	√	√
100,000	Cubic Metres	<b>√</b>	√
ProCoder and E Resolution (8-di		5/8″	³¼" & 1"
0.1	US Gallons	√	√
0.1	Imperial Gallons	√	√
0.01	Cubic Feet	√	√
0.001 Cubic Metres		√	√

