

A PRODUCT SHEET OF NEPTUNE TECHNOLOGY GROUP

T-10 Meter

SIZES 5%", 34", 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° Utility Management Systems^M.



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 1¹/₄"

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)R900*i*, E-CODER)R450*i*, ProCoder[™])R900*i*[™], TRICON/S, TRICON/E3
- Reclaim

Bottom Caps

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

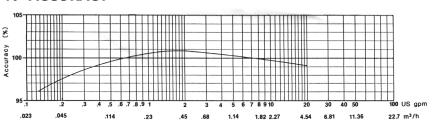
Connections

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

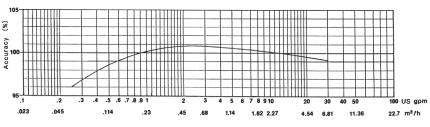
Environmental Conditions

- 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

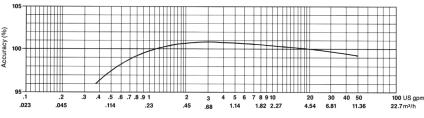


³/₄" ACCURACY

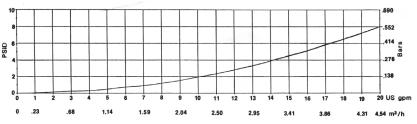




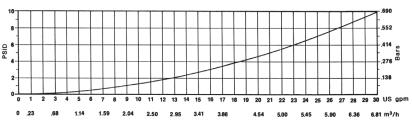
(%)



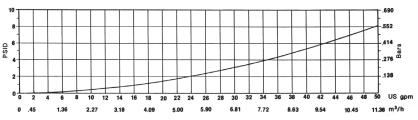
5/8" PRESSURE LOSS



³/₄" PRESSURE LOSS



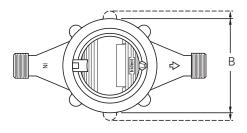
1" PRESSURE LOSS

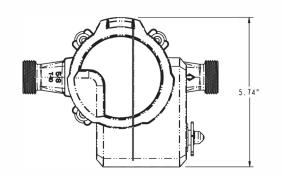


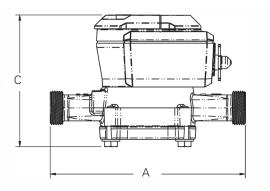
These charts show typical meter performance. Individual results may vary.

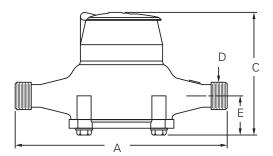
Dimensions

	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
5%" x 3⁄4"	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	47⁄8 124	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
³⁄₄″ x 1″	9 229	4¾ 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	6¾ 162	7 178	7 178	7 178	7 178	1¼" - 11½"	21⁄8 54	9¾ 4.4
1" x 1¼"	10¾ 273	6½ 165	6¾ 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∕8 US gpm
	0.11 to 4.55 m³/h	0.23 to 4.5 m³/h	0.03 m³/h
3/4″	³ ⁄4 to 30 US gpm	2 to 30 US gpm	¹ ⁄4 US gpm
	0.17 to 6.82 m³/h	0.45 to 6.8 m³/h	0.06 m³/h
1″	1 to 50 US gpm	3 to 50 US gpm	³⁄₀ US gpm
	0.23 to 11.36 m³/h	0.68 to 11.4 m³/h	0.09 m³/h

Registration

ProRead Regist (per sweep han		5%"	¾ " & 1 "
10	US Gallons	\checkmark	\checkmark
10	Imperial Gallons	\checkmark	\checkmark
1	Cubic Foot	\checkmark	√
0.1	Cubic Metre	√	√
Register Capaci ProRead, ProCo	ty der, and E-CODER	5/8"	³ /4" & 1"
10,000,000	US Gallons	\checkmark	√
10,000,000	Imperial Gallons	\checkmark	√
1,000,000	Cubic Feet	\checkmark	\checkmark
100,000	Cubic Metres	\checkmark	√
ProCoder and E Resolution (8-di		5/8"	³ /4" & 1"
0.1	US Gallons	\checkmark	\checkmark
0.1	Imperial Gallons	\checkmark	\checkmark
0.01	Cubic Feet	\checkmark	\checkmark
0.001	Cubic Metres	\checkmark	√



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Neptune Technology Group

1600 Alabama Highway 229 Tallassee, AL 36078 800-633-8754 f 334-283-7293