



# DOUBLE CHECK T-10 BACKFLOW METER

SIZES: 5/8"



The Double Check T-10 backflow meter delivers a positive drip-tight seal for protection from the reverse flow of nonpotable liquids brought about by a cross-connection breach.



Today, utilities are faced with cross-connection regulations while challenged to meet rising homeland security initiatives. The Neptune T-10 Double Check backflow meter delivers a positive drip-tight seal for protection from the reverse flow of non-potable liquids brought about by a cross-connection breach. The 5/8" T-10 Double Check backflow meter may be used in the following applications:

- Fire protection systems
- Residential services
- Plumbing systems
- Other systems requiring low hazard protection

The 5/8" T-10 Double Check backflow meter can be fully upgraded to all Neptune ARB® Utility Management Systems™ components, such as Pread™, E-Coder™ or the E-Coder)R900i™. When coupling the E-Coder)R900i™ with the T-10 backflow meter, Neptune is able to offer an innovative solution for utilities that implement a backflow program. The reverse flow detection of the E-Coder)R900i™ offers utilities 365 days of 15-minute interval reverse flow monitoring to ensure that the device is functioning properly.

**CONSTRUCTION**

The 5/8" T-10 Double Check backflow meter has the same standard laying length (7½ inches) as a regular 5/8" T-10 water meter while including an integral backflow device in the same meter design. The measuring element in the T-10 Double Check backflow meter is the same as our standard T-10 water meter; therefore, this product has the same extended low-flow accuracy that meets or exceeds the latest AWWA C700 standard. In normal flow conditions, the independently operating check valves remain closed until there is a demand for water. Each of the checks is designed to open at approximately one psi pressure differential in the direction of flow. At cessation of flow or under a back pressure condition, both checks will close until normal flow is resumed.

**APPROVALS**

The T-10 Double Check backflow meter is approved by the ASSE (American Society for Sanitation Engineering) 1015 and is CSA (Canadian Standards Association) B64.5-M88 approved. It is rated as a ½" backflow device.

**KEY FEATURES**

- Integral double check backflow device and T-10 meter design
- No-lead maincase, made from no-lead copper alloy
- ANSI/NSF 61 certified
- Positive displacement, nutating disc measuring chamber
- Extended low-flow accuracy
- Cartridge check assemblies for ease of serviceability
- Fits standard 5/8" meter lay length
- Ability to upgrade to AMR seamlessly
- Test cocks are vertically oriented for ease of testing in tight areas

**KEY BENEFITS**

- Provides significant labor savings due to reduced installation costs in retrofit applications
- Provides 365-day, 15-minute interval reverse flow monitoring with E-Coder)R900i register
- Supports cross-connection control measures and addresses homeland security initiatives
- Enhances customer service by providing security protection against cross-connection
- Reduces operational costs
- Reduces installation time and cost

**WARRANTY**

Neptune provides a limited warranty with respect to its T-10 water meters for performance, materials and workmanship.

When desired, maintenance is easily accomplished either by replacement of major assemblies or individual components.

## GUARANTEED SYSTEMS COMPATIBILITY

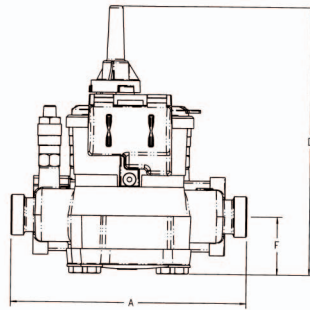
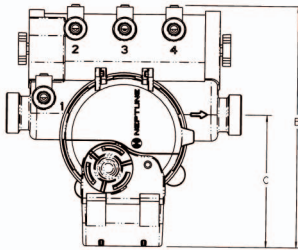
All T-10 water meters are guaranteed adaptable to our ARB®V, ProRead™ (ARB® VI), E-Coder™ (ARB VII), E-Coder)R900i™ (ARB® VIII), TRICON®/S, TRICON/E3®, and Neptune meter reading systems without removing the meter from service.

## 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 m³/h	1 to 20 US gpm 0.23 to 4.5 m³/h	1/8 US gpm 0.03 m³/h

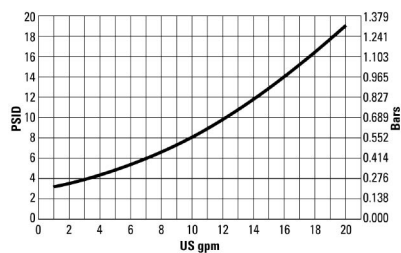
## DIMENSIONS

Meter Size	A		C		D			E		F		G	Approx. Weight lbs/kg
	in/mm	in/mm	Std. ARB	R900i	Std. ARB	R900i	Threads per inch	OD in/mm	in/mm	in/mm			
5/8"	7 1/2	6 3/4	2 3/8	4 1/4	4 7/8	5 3/8	8 9/16	14	1.030	1 3/4	2 5/8	8	
	191	150	60	108	124	137	218		26	44	67	3.6	
5/8" x 3/4"	7 1/2	6 3/4	2 3/8	4 1/4	4 7/8	5 3/8	8 9/16	11 1/2	1.290	1 3/4	2 5/8	8	
	191	150	60	108	124	137	218		33	44	67	3.6	



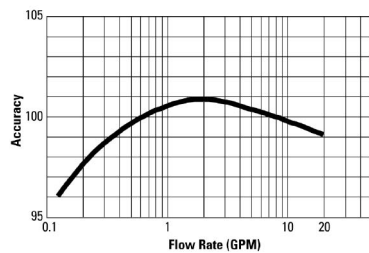
## PRESSURE LOSS CHART

(Rate of Flow in Gallons per Minute)



## ACCURACY CHART

(Rate of Flow in Gallons per Minute)



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

## SYSTEMS COMPATIBILITY

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

## SPECIFICATIONS

- Maximum operating water pressure: 175 psi
- Maximum operating water temperature:
  - T-10 meter accuracy rated to 80°F
  - Backflow assembly rated to 110°F
- Reverse flow protection: two stainless steel spring-loaded check valves
- Measuring chamber: positive displacement, nutating T-10 disc
- Register:
  - Direct reading: synthetic polymer box and cover, bronze box and cover
  - Remote reading: ARB®V, ProRead™, E-Coder™, E-Coder)R900i™, TRICON®/S, TRICON/E3®
- Bottom caps:
  - Synthetic polymer
  - Cast iron
  - No-lead high copper alloy
- Environmental conditions:
  - Operating temperature: -22°F to 149°F (-30°C to 65°C)
  - Storage temperature: -40°F to 158°F (-40°C to 70°C)
  - Operating humidity: 0 to 95% non-condensing

Neptune engages in ongoing research and development to improve and enhance its products. Therefore, Neptune reserves the right to change product or system specifications without notice.

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