



A PRODUCT SHEET OF NEPTUNE TECHNOLOGY GROUP

Double Check T-10[®] Backflow Meter



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:

Problem

- 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 ProRead[™], ProCoder[™], E-CODER[®], E-CODER[®]R900i[™], or the E-CODER[®]R450i[™]. When coupling the E-CODER[®]R900i or the E-CODER[®]R450i 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 and E-CODER[®]R450i 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 (7 1/2 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

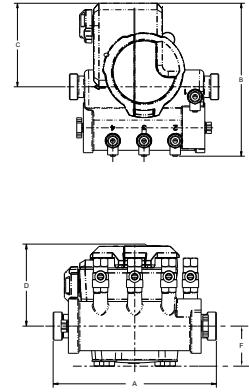
The T-10 Double Check backflow meter is NSF/ANSI 372 certified and approved by the ASSE (American Society for Sanitation Engineering) 1015. It is rated as a 1/2" backflow device.

KEY FEATURES

- Integral double check backflow device and T-10 meter design
- Lead free copper alloy maincase
- 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
- 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 or E-CODER[®]R450i register
- Supports cross-connection control measures
- Enhances customer service by providing security protection against cross-connection
- NSF/ANSI 372
- ASSE 1015

Dimensions

Meter Size	A in/ mm	B in/ mm	C		D		Threads NPSM	E OD in/ mm	F in/ mm	G in/ mm	Approx. Weight lbs/kg
			Std. ARB in/ mm	E-CODER)R900i, E-CODER)R450i ProCoder)R900i, or ProCoder)R450i in/mm	Std. in/ mm	ARB in/ mm					
5/8"	7 1/2 191	7 3/4 197	2 3/4 70	4 1/4 108	2 7/8 73	3 5/8 92	3 5/8 92	1.030 26	1 3/4 44	2 5/8 67	8 3.6
5/8" X 3/4"	7 1/2 191	7 3/4 197	2 3/4 70	4 1/4 108	2 7/8 73	3 5/8 92	3 5/8 92	1.290 33	1 3/4 44	2 5/8 67	8 3.6



Operating Characteristics

Meter Size	Normal Operating Range @100% Accuracy (±1.5%)	AWWA Standard	Low Flow @ 95% - 101% Accuracy
5/8"	1/2 to 20 US gpm 0.11 to 4.55 m ³ /h	1 to 20 US gpm 0.23 to 4.5 m ³ /h	1/8 US gpm 0.03 m ³ /h

Systems Compatibility

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

Maximum Operating Water Pressure

- 175 psi

Maximum Operating Water Temperature

- T-10 meter accuracy rated to +80°F
- Backflow assembly rated to +110°F

Register

- Direct reading: synthetic polymer box and cover, bronze box and cover
- Remote reading: ARB V, ProRead, ProCoder, E-CODER, E-CODER)R900i, E-CODER)R450i, TRICON/S, TRICON/E3

Reverse Flow Protection

- Two stainless steel spring-loaded check valves

Measuring Chamber

- Positive displacement, nutating T-10 disc

Bottom Caps

- Synthetic polymer
- Cast iron
- Lead free, high-copper alloy

Environmental Conditions

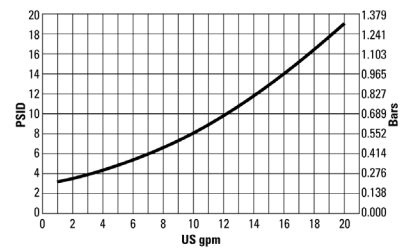
- Operating temperature: -22°F to +149°F (-30°C to +65°C)
- Storage temperature: -40°F to +158°F (-40°C to +70°C)
- Operating humidity: 0 to 95% non-condensing

Warranty

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

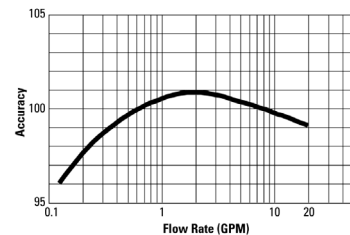
Pressure Loss

(Rate of Flow in Gallons per Minute)



Accuracy

(Rate of Flow in Gallons per Minute)



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

Guaranteed Systems Compatibility

All T-10 water meters are guaranteed adaptable to our ARB® V, ProRead, ProCoder, E-CODER, E-CODER)R900i, E-CODER)R450i, TRICON®/S, TRICON/E3®, and Neptune meter reading systems without removing the meter from service.

