

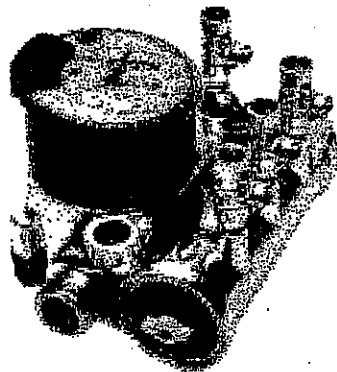
NEPTUNE.

Neptune Technology Group Inc.

Double Check T-10 Meter

Sizes: 1/2" 3/4"

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



The Double Check T-10 meter delivers a positive drip-tight seal for protection from the reverse flow of nonpotable liquids brought about by a cross connection. The 3/8" Double Check T-10 may be used in the following applications:

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

Operation

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.

The measuring element in the Double Check T-10 is the same as in our standard T-10 water meter. Its accuracy meets or exceeds the latest AWWA C700 Standard. Its nutating disc, positive displacement

principle is time proven for accuracy and dependability since 1892 and ensures maximum utility revenue.

Installation

The Double Check T-10 should be installed with adequate clearance and easy accessibility for maintenance and testing. Refer to local codes for specific installation requirements.

Approvals

- ASSE 1015 approved
- CSA B64.5-M88 approved.
- Rated as 1/2" backflow device

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.

Systems Compatibility

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

Key Features

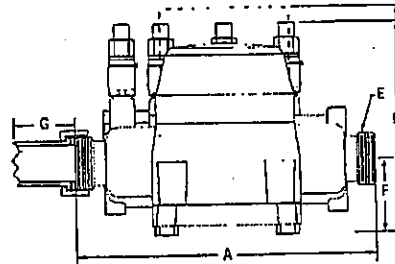
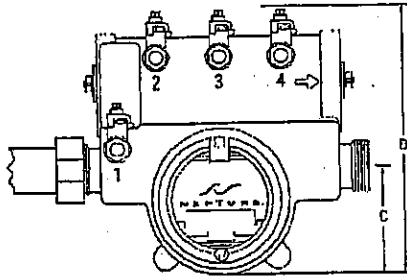
- EnviroBrass® II maincase
- Integral unit design (meter and double check)
- Fits in any standard meter setting (7 1/2")
- 175 psi rated working pressure
- Sturdy, durable, and corrosion resistant
- Test cocks are vertically orientated for ease of testing in tight areas
- Easy-to-follow installation and service procedures
- Built-in strainer standard
- Cartridge check assembly for ease of serviceability
- Positive displacement, nutating disc measurement chamber
- Extended T-10 low flow accuracy
- Adaptable to all systems
- Stainless steel check valve assembly spring
- Widest effective flow range for greater utility revenue
- Low flow indicator for leak indication
- Provides significant labor savings in retrofit installations

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 ³ /h	1 to 20 US gpm 0.23 to 4.5 m ³ /h	1/8 US gpm 0.03 m ³ /h

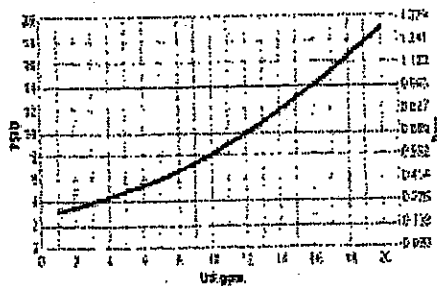
Dimensions

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



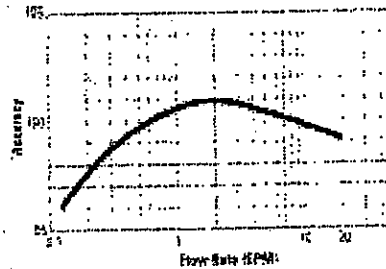
Pressure Loss Chart

(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.

Guaranteed Systems Compatibility

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

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
- Backflow protection: two stainless steel spring-loaded check valves
- Measuring chamber: positive displacement, rotating T-10 disc
- Register:
 - Direct reading: synthetic polymer box and cover, Bronze box and cover
 - Remote reading: ARB[®]V, ProRead, E-Coder, TRICON/S, TRICON/E3
- Bottom caps:
 - Synthetic polymer
 - Cast iron
 - EnviroBrass II
- 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 100%

Neptune Technology Group Inc. reserves the right to change these specifications without prior notice.



www.neptunetg.com

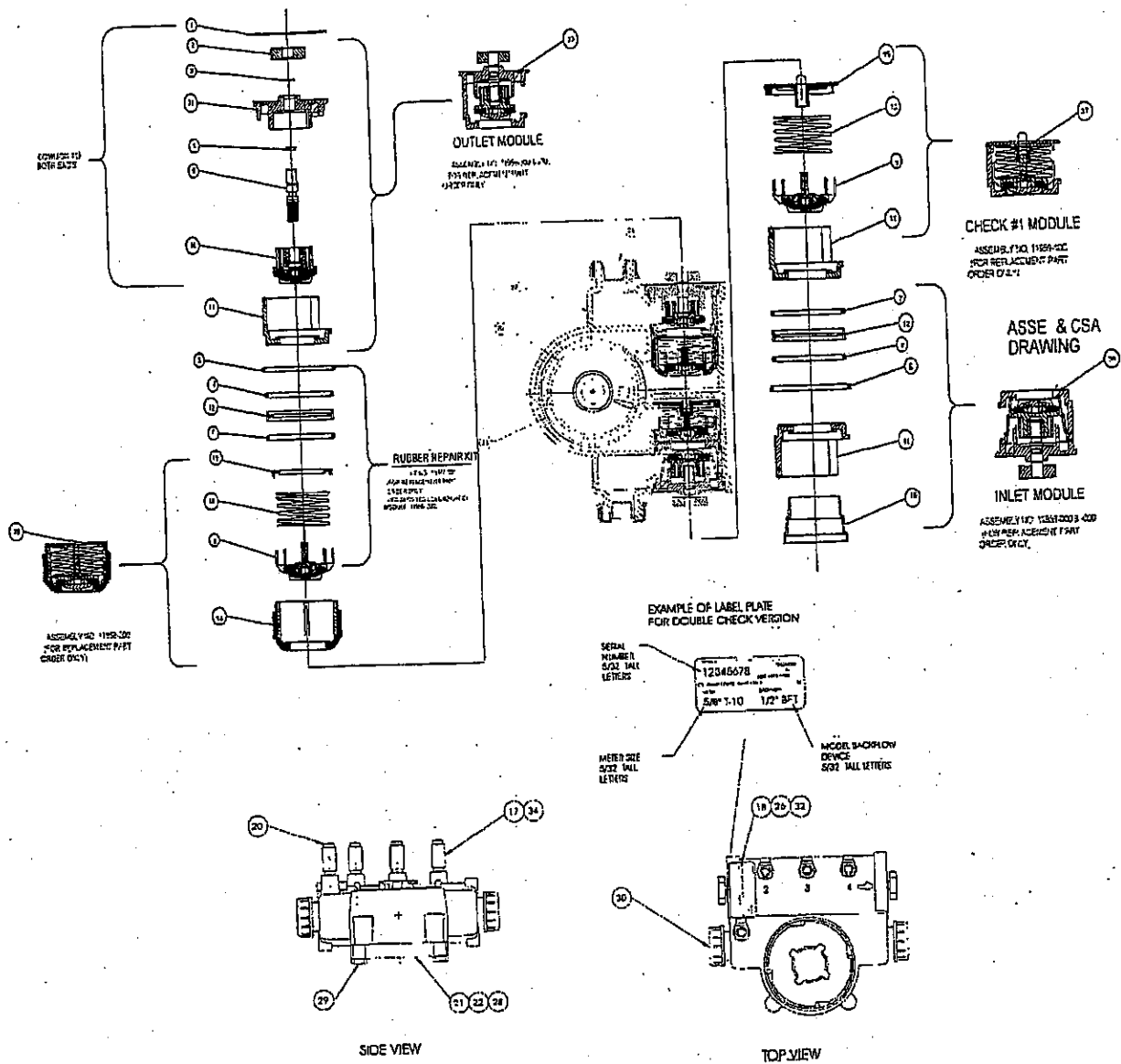
Neptune Technology Group Inc.
1600 Alabama Highway 229
Tulsa, AL 36678, USA
Tel: (800) 645-1892
Fax: (334) 283-7299

Neptune Technology Group
(Canada) Ltd.
7275 West Credit Avenue
Mississauga, Ontario
L5N 5M5
Canada
Tel: (905) 858-4211
Fax: (905) 858-0428

Neptune Technology Group Inc.
Avenida Nacional No. 218
Piso 12, Desp. 1201-1202
Cajalputec, Morales
Delegación Miguel Hidalgo
1570, México, Distrito Federal
Tel: (525) 55203 5294 / (525) 55203 5708
Fax: (525) 55203 6503

PS T100C TR 01
© Copyright 2004, Neptune Technology Group Inc.
ARB and TRICON are registered trademarks of Neptune Technology Group Inc. EnviroBrass is a registered trademark of Asarco Specialty Products.

5/8" T-10 Double Check Backflow Meter Reference Schematics.



5/8" T-10 Double Check Backflow Meter

Item	L/C	Part No.	Description	Qty	Price
1	P	8579-308	Retaining Ring, End Plate	2	3.40
2	P	11918-002	Knob, Shut-Off	2	.50
3	P	8579-037	Retaining Ring, Stem	2	.90
5	P	8316-121	O'ring, End Plate	2	.90
6	P	8316-046	O'ring, Stem	2	.20
7	P	8316-120	O'ring, Housing	4	1.40
8	P	11937-001	Stem	2	3.30
9	A	11950-000	Poppet Valve Assembly	2	4.10
10	A	11951-000	Shut-Off Valve Assembly	2	7.90
11	P	11922-001	Housing, Universal	3	1.20
12	P	11923-001	Hoop, Test Port	2	.60
13	P	8356-534	Spring	2	.70
14	P	11925-001	Housing, Single	1	N/A
15	P	11926-001	Retainer Guide, Spring	1	.70
16	P	11927-001	Strainer, 5/8" Meter/Backflow	1	.60
17	P	8368-816	Test Cock	4	8.60
18	P	7985-032	Label Plate	1	N/A
19	P	11972-001	Retainer Plate, Check #2	1	.30
20	P	8315-023	Pipe Plug, 1/4" NPT, Plastic	4	.20
21	P	8340-028	Gasket	1	.40
22	P	9398-001	Liner	1	.70
23	P	9399-004	Strainer, 5/8" T-10	1	.70
25	A	9400-600	Chamber Assembly, 5/8" T-10	1	16.0
26	L	96018-069	Loctite 326	A/R	N/A
27	P	11917-00X	Maincase (See Spud Size table below)	1	N/A
28	P	9397-XXX	Bottom Cap (See Bottom Cap table below.)	1	*
29	P	8353-XXX	Bolt (See Bolt table below.)	4	*
30	P	17XX-XXX	Spud Cup (See Spud Cap table below)	2	N/A
31	P	11919-001	End Plate w/Hole	2	4.40
31	P	11919-101	End Plate w/ Hole, Silicon Brass	1	8.58
32	L	96018-070	Locquic 764 Primer N	A/R	N/A
33	L	96018-015	Aqua-Flow Lubricant	A/R	N/A
34	L	96018-056	Loctite 567	A/R	N/A
35	P	67946-004	Warning Tab (not shown)	1	N/A
36	A	11959-000	Inlet Module	1	29.80
37	A	11959-100	Check #1 Module	1	14.80
38	A	11959-200	Check #2 Module	1	14.40
39	A	11959-300	Outlet Module	1	27.40
N/A	P	5500-163	Check Valve Removal Tool (not shown)	1	93.90
N/A	P	11977-001	Rubber Repair Kit** (not shown)	1	20.10

* These parts are standard 5/8" T-10 water meter parts.
 ** Includes item 5 (qty 2), item 7 (qty 4) and item 9 (qty 2).

Spud Size	
1	11917-003
2	11917-004

Bottom Cap		
1	Cast Iron	9397-010
2	Bronze	9397-023
3	Plastic	9397-501

Bolt	
1	302 SST 8353-106
2	316 SST 8353-105

Spud Cap	
1	1788-008
2	1789-008

Testing

Differential Gauge Method

To test check valve #1 (#2) for 1.0 psi in the direction of flow under normal no back pressure conditions.

The instructions for check valve #2 are provided in parentheses.

Before conducting testing, the customer should be contacted and a testing date scheduled. Just prior to testing, the customer should be notified that water service will be temporarily discontinued.

- 1 Verify that the appropriate backflow preventer is being tested and note the general conditions of the backflow preventer and the surrounding area.
- 2 Flush the testcocks. This is done to remove any lodged foreign materials that might interfere with the test.
- 3 Install flair fittings on testcock #2 and #3.
- 4 Maintain test kit and low pressure hose at same level as check valve. Close all needle valves.
- 5 Attach high pressure hose from test kit to testcock #2 (#3).
- 6 Close No. 2 shutoff valve (outlet).
- 7 Open testcock #2 (#3). Open the high bleed needle valve and bleed all air from hose and test kit. Close high bleed needle valve.
- 8 Close service shutoff valve; then close No.1 shutoff valve (inlet).
- 9 Open testcock #3 (#4),
- 10 Observe whether the needle on the gauge is maintained at 1.0 psi or above.
- 11 Record the results
- 12 Close testcocks #2 (#3) and #3 (#4); disconnect the high pressure hose, and open No. 1 shutoff valve, No. 2 shutoff valve, before opening the service shutoff valve.

Sight Tube Method

To test check valve #1 (#2) will hold back 1.0 psi in the direction of flow under normal no back-pressure conditions.

The instructions for check valve #2 are provided in parentheses.

Before conducting testing, the customer should be contacted and a testing date scheduled. Just prior to testing, the customer should be notified that water service will be temporarily discontinued.

- 1 Verify that the appropriate backflow preventer is being tested and note the general conditions of the backflow preventer and the surrounding area.
- 2 Flush the testcocks. This is done to remove any lodged foreign materials that might interfere with the test.
- 3 Install adapter (tee with ball valve) on testcock #2 (#3).
- 4 Attach a sight tube to testcock #2 (#3).
- 5 Attach a short sight tube or ell to test cock #3 (#4).
- 6 Close No. 2 shutoff valve (outlet).
- 7 Open testcock #2 (#3) and fill the sight tube so that the water level in the sight tube will be at least 28 inches above the water level at sight tube of ell attached to testcock #3 (#4). Close Testcock #2 (#3).
- 8 Close service shutoff valve; then close No. 1 shutoff valve (inlet).
- 9 Open testcock #3 (#4) and open testcock #2 (#3),
- 10 Observe whether the level in the sight tube is maintained at least 28 inches above water level at testcock #3 (#4).
- 11 Record the results.
- 12 Close testcocks #2 (#3) and #3 (#4); disconnect the sight tube, and open No. 1 shutoff valve, No. 2 shutoff valve, before opening the service valve.

For more information by fax, call Neptune FAX-BACK System: 1-800-823-4417 and select the document you wish to order.



Neptune Technology Group Inc.
1600 Alabama Highway 229
Tallahassee, AL 36078, USA
Tel: (800) 645-1892
Fax: (334) 283-7299

Neptune Technology Group Inc.
7275 West Credit Avenue
Mississauga, Ontario L5N 5M9, Canada
Tel: (905) 858-4211
Fax: (905) 858-0428

Neptune Technology Group Inc.
Via Gustavo Baz No. 2900
Col. Naucalpan Centro
53000 Naucalpan, Estado de Mexico
Tel: (525) 358-6737
Fax: (525) 576-1934