



NEPTUNE®

Neptune Technology Group Inc.

TRICON®/S Register

The TRICON/S can be used in applications where a switch closure that is proportional to the flow rate is required.



The TRICON/S register mounts on the meter maincase. The bayonet type mount allows the TRICON/S to be easily retrofitted to many existing Neptune meters without interruption. The TRICON/S can be used in applications where a switch closure that is proportional to the flow rate is required. Several switch configurations are available.

Every Neptune meter and TRICON/S register meet or exceed the latest standards of the American Water Works Association ensuring accurate, dependable performance.

The TRICON/S register is ideally suited for controlling/monitoring total flow rate data such as:

- Water softening regeneration
- Demineralization reverse osmosis
- Chemical treatment/injection
- Batch processing
- Filtration
- Boiler feed water make-up
- Cooling tower water make-up
- Irrigation

Warranty

Neptune provides a limited warranty with respect to its TRICON/S Register System for performance, materials, and workmanship.

Key Features

■ Register

- Reed switch technology
- Large, easy-to-read numerals
- Rugged thermoplastic housing
- Monitoring capability permits locating registers up to 1000 feet from controller
- Wide variety of calibrated switch closures available
- Tamperproof – only one seal wire screw to secure register and terminal cover

■ Readily available for all Neptune Meters:

- T-10 Disc Meter
- HP Turbine
- Tru/Flo Compound
- HP Fire Service Turbine
- HP Protectus III Meter

Electrical Characteristics (at 25°C unless specified)

Switch Ratings	Min	Typ	Max	Units
Operating Temperature	-40		125	°C
Open Circuit Resistance	10			MOhms
Closed Circuit Resistance			0.1	Ohms
Break Down Voltage (DC)	250			Volts
Capacitance		1.5		pF
Actuation Time	0.0005			sec
Shock With No Contact			100	G

Available Switch Closures (for T-10s and Turbines)

Gal, Imp. Gal, or Litres*/ Contact	5/8"-1" T-10	1 1/2"-2" T-10	1 1/2"-4" HPT	6"-12" HPT	16"-20" HPT	Cubic Feet/ Contact	5/8"-1" T-10	1 1/2"-2" T-10	1 1/2"-4" HPT	6"-12" HPT	16"-20" HPT	Cubic Metres/ Contact	1 1/2"-4" HPT	6"-12" HPT	16"-20" HPT
1	✓					1	✓	✓	✓			0.1	✓		
10	✓	✓	✓			10	✓	✓	✓	✓		10	✓	✓	✓
100	✓	✓	✓	✓		100	✓	✓	✓	✓	✓	100	✓	✓	✓
1000	✓	✓	✓	✓	✓	1000	✓	✓	✓	✓	✓	1000		✓	✓
10,000		✓	✓	✓	✓	10,000				✓	✓	10,000			✓
100,000				✓	✓	100,000					✓	100,000			

* Use of Litres per contact not available for 1 1/2" - 20" HPT.

Meter Application Guide

Meter/Size	Normal Flow Range (GPM)	Max Continuous Flow	Meter Length (in.)
T-10			
5/8"	1/2 - 20	10	7 1/2
5/8" x 3/4"	1/2 - 20	10	7 1/2
3/4"	3/4 - 30	15	9
3/4" x 1	3/4 - 30	15	9
1"	1 - 50	25	10 3/4
1 1/2" Threaded End	2 - 100	50	12 5/8
1 1/2" Flanged End	2 - 100	50	13
2" Threaded End	2 1/2 - 160	80	15 1/4
2" Flanged End	2 1/2 - 160	80	17
TridentTurbine			
3"	5 - 450	450	12
4"	10 - 1000	1000	14
6"	20 - 2000	2000	18
8"	35 - 3500	3500	20
10"	50 - 5500	5500	26
HP Turbine			
1 1/2"	4 - 160	160	10
2"	4 - 160	160	10
3"	5 - 450	450	12
4"	10 - 1200	1200	14
6"	20 - 2500	2500	18
8"	35 - 4000	4000	20
10"	50 - 6500	6500	26
12"	120 - 8000	8000	19 11/16
16"	200 - 13500	13500	23 5/8
20"	300 - 22000	22000	31 1/2

Specifications

- Sizes:
 - T-10 (5/8"-2")
 - Trident Turbine (3"-10")
 - HP Turbine (1 1/2"-20")
 - Tru/Flo Compound (2"-6"x8")
 - HP Fire Service (3"-10")
 - HP Protectus III (4"-10")
- Units of measure:
 - U.S. gallons
 - imperial gallons
 - litres
 - cubic feet
 - cubic metres
- Connection wire:
 - Distances up to 300 feet (91 metres) – AWG #22
 - Distances from 300 to 500 feet (91–152 metres) – AWG #20
 - Distances 500–1000 feet* (152–304 metres) – AWG #18
- Electrical characteristics (at 25°C unless specified): Absolute maximums (not to be exceeded without possible damage)
 - Switch power: 10 watts (DC)
 - Switch current: 0.5 amps (DC)
 - Switch voltage: 200 volts (DC)

* Recommended installation: Register should be in an upright position. Not recommended for pit applications.



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