

AUTOTROL™ TURBINE WATER METER



1TM-NPT shown

Flow Sensor Specifications

	MODEL 1TM 1 inch (25 mm)	MODEL 2TM 2 inch (51 mm)
Flow rate range	0.275 – 35 gpm (0.0625 – 7.95 m ³ /h)	5 – 250 gpm (1.14 – 56.8 m ³ /h)
Materials of construction:		
Housing		
Turbine (Impeller)	30% Glass-Filled PPO [†]	30% Glass Filled PPO [†]
Bearings	Polypropylene	Polypropylene
Shaft	Polyimide 302 SS	Carbon Graphite No shaft—thrust bearing
Accuracy	± 3% of reading	± 3% of reading
Pressure Drop	1.5 psi @ 30 gpm (10.3 kPa @ 7 m ³ /h)	2.5 psi @ 150 gpm (17.2 kPa @ 34 m ³ /h)
Maximum water temp.	100°F (38°C)	100°F (38°C)
Maximum temp.	122°F (50°C)	122°F (50°C)
Maximum pressure	127 psi (875 kPa)	100 psi (689 kPa)
Available cable lengths	25, 50 ft (7.6, 15.2 m)	25, 50 ft (7.6, 15.2 m)
Maximum cable length – kit form	1,000 ft. (305 m)	1,000 ft. (305 m)

[†] PPO – Polyphenylene Oxide

ORDERING INFORMATION

1033238	1TM-ESW	1 inch turbine meter with solvent weld PVC adapters
3023532	1TM-NPT	1 inch turbine meter with 1 inch NPT stainless steel adapter
1034080	2TM-ESW	2 inch turbine meter with solvent weld PVC adapters
3023536	2TM-NPT	2 inch turbine meter with 2 inch NPT stainless steel adapter
1033317	400B418-701	1 inch turbine meter only
1033358	480B78G1	2 inch turbine meter only

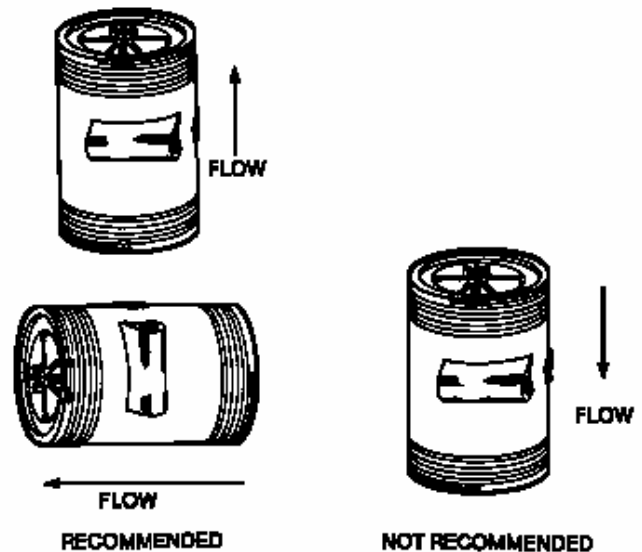
WATER METER CABLE (ORDER ONE CABLE FOR EACH TURBINE)

1033354	49C25	25 ft cable with Hall Effect sensor
1033355	49C50	50 ft cable with Hall Effect sensor

INSTALLATION INSTRUCTIONS

Install the turbine assembly in the water line. Note the flow direction arrow on the turbine body. It is highly recommended that there be a length of straight pipe either side of the turbine equal to ten times the pipe diameter.

If installation conditions do not permit this length, a minimum of 12 inches (31 cm) of straight pipe before and after the 2 inch (5 cm) turbine, and 6 inches (15 cm) before and after the 1 inch (2.5 cm) turbine may be sufficient.



CAUTIONS:

- ***AUTOTROL TURBINE WATER METERS ARE NOT TO BE USED AS A UNION. WATER METERS MUST BE SUPPORTED AT BOTH ENDS.***
- ***WATER METERS WILL BE IDEALLY LOCATED IN HORIZONTAL PIPE WITH A LENGTH OF STRAIGHT PIPE EQUAL TO 10 PIPE DIAMETERS ON EITHER SIDE.***
- ***WATER METERS MUST HAVE FLOW ORIENTED FROM BOTTOM TO TOP WHEN MOUNTED VERTICALLY.***
- ***DO NOT OVER-TIGHTEN THE TURBINE HOUSING ADAPTER NUTS OR YOU MAY DAMAGE THE THREADS***



**1TM-NPT
PART NO. 3023532**

The 1TM-NPT Is A 1 Inch Turbine Water Meter With Stainless Steel NPT Adapter Fittings. The Flow Rate Is .275 – 35 Gpm. Max Water Temp 100°F (38° C), Max Temp 122° (50° C) And Max Pressure 127 Psi (875 KPA). The 1TM-NPT Comes With All Of The Parts Shown.

Hall Effect Cable Sold Separately.



**1TM-ESW
PART NO. 1033238**

The 1TM-ESW Is A 1 Inch Turbine Water Meter With PVC Solvent Weld Adapter Fittings. The Flow Rate Is .275 – 35 Gpm. Max Water Temp 100°F (38° C), Max Temp 122° (50° C) And Max Pressure 127 Psi (875 KPA). The 1TM-ESW Comes With All Of The Parts Shown.

Hall Effect Cable Sold Separately.



**2TM-NPT
PART NO. 3023536**

The 2TM-NPT Is A 2 Inch Turbine Water Meter With Stainless Steel NPT Adapter Fittings. The Flow Rate Is 5 – 250 Gpm. Max Water Temp 100°F (38° C), Max Temp 122° (50° C) And Max Pressure 100 Psi (689 KPA). The 2TM-NPT Comes With All Of The Parts Shown.

Hall Effect Cable Sold Separately.



**2TM-ESW
PART NO. 1034080**

The 2TM-ESW Is A 2 Inch Turbine Water Meter With PVC Solvent Weld Adapter Fittings. The Flow Rate Is 5 – 250 Gpm. Max Water Temp 100°F (38° C), Max Temp 122° (50° C) And Max Pressure 100 Psi (689 KPA). The 2TM-ESW Comes With All Of The Parts Shown.

Hall Effect Cable Sold Separately.



**49C25
PART NO. 1033354**

The 49C25 Is The Hall Effect Sensor With 25 Ft Of Cable For Use With The Autotrol Turbine Water Meters.

**49C50
PART NO. 1033355**

The 49C50 Is The Hall Effect Sensor With 50 Ft Of Cable For Use With The Autotrol Turbine Water Meters.

ORDERING INFORMATION

PART NO.	DESCRIPTION
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TURBINES

1033238	1TM-ESW, 1" Turbine Meter With PVC Fittings
3023532	1TM-NPT, 1" Turbine Meter With NPT Fittings
1034080	2TM-ESW, 2" Turbine Meter With PVC Fittings
3023536	2TM-NPT, 2" Turbine Meter With NPT Fittings

SENSOR CABLES (1 Required For Each Turbine)

1033354	49C25, 25 Ft Cable For Turbine Meter
1033355	49C50, 50 Ft Cable For Turbine Meter

1 INCH TURBINE METER REPLACEMENT PARTS

1033317	1 Inch Replacement Turbine Meter, 400B418-701
1030541	Gasket 1 Inch
3014631	Turbine Nut 1 Inch for NPT Stainless Steel
1034385	Turbine Nut 1 Inch for ESW PVC
3014557	Adapter 1 Inch NPT Stainless Steel
1030579	Adapter 1 Inch ESW PVC

2 INCH TURBINE METER REPLACEMENT PARTS

1033358	2 Inch Replacement Turbine Meter, 480B78G1
3030498	Gasket 2 Inch
1030664	Turbine Nut 2 Inch for NPT SS and PVC ESW
3014558	Adapter 2 Inch NPT Stainless Steel
1030666	Adapter 2 Inch ESW PVC