## TM 1/2" - 2" Water Meters



"Look for the blue label!"

TM Series Meters are designed for use in water applications. The five smallest sizes are shown here. (For 3" and 4" meters, see page 40.) Choose either Spigot (pipe end) or NPT and BSPP fittings.



#### **ACCURACY: ±3.0% READING**

#### Features and Benefits:

- Easy to install.
- Displays in gallons, litres and cubic feet.
- Indicates Batch, Cumulative Totals and Rate of Flow.
- Available in NPT, BSPP or Spigot fittings.
- Meets Schedule 80 specifications.
- Lithium battery life: 5 years.
- Non-volatile totals means amounts are retained when batteries are replaced or power is lost.



#### **Applications:**

- OEM water treatment equipment / skids
- Sub-metering of facility water usage
- Small waste water treatment equipment
- Water based cooling systems

TM SERIES – SPECIFICATIONS		
Design Type:	Turbine	
Fitting Size:	1/2" 3/4" 1" 1-1/2" 2"	
Fitting Type:	Schedule 80 Spigot (Pipe) End, NPT (Female) or *BSPP (Female)	
Flow Range:		
1/2" - TM 050:	1 - 10 GPM (3.8 - 38 LPM)	
3/4" - TM075	2 - 20 GPM (7.6 - 76 LPM)	
1" - TM100:	5 - 50 GPM (19 - 190 LPM)	
1-1/2" - TM150	10 - 100 GPM (38 - 380 LPM)	
2" - TM200	20 - 200 GPM (76 - 760 LPM)	
Accuracy:	± 3.0% of reading	
Pressure Rating: BSP:	225 PSI / 15.3 BAR at 73° F (23° C) 150 PSI / 10.3 BAR at 73° F (23° C)	
Operating Temperature:	+32° F to +140° F (0° to +60° C)	
Typical K-Factor:		
1/2" - TM050:	2,500 PPG / 660 PPL	
3/4" - TM075	1,100 PPG / 291 PPL	
1" - TM100:	565 PPG / 149 PPL	
1-1/2" - TM150	215 PPG / 57 PPL	
2" - TM200	100 PPG / 26 PPL	
Battery Life:	5 Years	
Wetted Materials:		
Housing:	PVC	
Bearings:	Ceramic	
Shaft:	Tungsten Carbide	
Rotor:	PVDF	
Rings:	316 Stainless Steel	
Shipping Weight (approx.):	Spigot NPT / BSP	
1/2" - TM050:	.38 lbs. (.172 kg) .55 lbs. (.249 kg)	
3/4" - TM075:	.43 lbs. (.304 kg) .67 lbs. (.304 kg)	
1" - TM100:	.49 lbs. (.222 kg) .49 lbs. (.381 kg)	
1-1/2" - TM150:	.66 lbs. (.299 kg) 1.38 lbs. (.626 kg)	
2" - TM200:	.78 lbs. (.354 kg) 1.78 lbs. (.807 kg)	
Display Features:	Rate of Flow, Batch and Cumulative Totals,	
	Field Calibration available.	
Pulse Output (-P Elec. Choice):	Open Collector (NPN)	
Calibration Report	Comes standard with -P (Pulse out) TM Models.	
	N.I.S.T. – Certification available.	

#### **APPROVALS**



\* BSPP available in 1", 1 1/2" and 2" only.

Model TM200

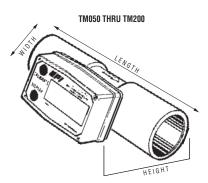


"Look for the blue label"

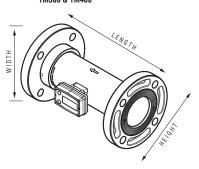


# Meter DIMENSIONS REFERENCE

### **TM Meters**



TM300 & TM400



Model	Length* inches (mm)	Height** inches (mm)	Width inches (mm)
TM050	3.8 (96)	2.6 (66)	2.0 (51)
TM050-N	5.8 (147)	2.6 (66)	2.0 (51)
TM075	3.8 (96)	2.7 (68)	2.0 (51)
TM075-N	5.8 (147)	2.7 (68)	2.0 (51)
TM100	4.1 (104)	3.1 (79)	2.0 (51)
TM100-N	6.1 (155)	3.1 (79)	2.0 (51)
TM150	5.4 (137)	3.7 (94)	2.1 (53)
TM150-N	7.4 (188)	3.7 (94)	2.1 (53)
TM200	5.5 (140)	4.2 (107)	2.4 (61)
TM200-N	7.5 (190)	4.2 (107)	2.4 (61)
TM300 (Spigot)	11.5 (292)	5.34 (136)	3.5 (89)
TM400 (Spigot)	13.5 (343	6.34 (161)	4.5 (114)
TM300 (NPT)	14.7 (373)	5.78 (147)	4.37 (111)
TM400 (NPT)	17.0 (432)	6.76 (172)	5.34 (136)
TM300 (Flange)	12.0 (305)	7.5 (190)	7.5 (190)
TM400 (Flange)	14.0 (356)	9.0 (229)	9.0 (229)

- Length guidelines are estimates; actual length can vary up to  $\pm$  1/2". Computer display adds 1.1 in. (28 mm) to height.

#### **Product Identifier** TM = Water Meter See Reference section **Turbine Size** for meter dimensions. 050 Schedule 80 PVC, 1/2 inch 075 Schedule 80 PVC, 3/4 inch 100 Schedule 80 PVC, 1 inch 150 Schedule 80 PVC, 1-1/2 inch 200 Schedule 80 PVC, 2 inch 300 Schedule 80 PVC, 3 inch 400 Schedule 80 PVC, 4 inch **Fitting Type** Blank = Spigot (Pipe) End -N NPT (Female) -B BSPP (Female) -F 150# ANSI Flange (3 in. and 4 in. meters only) **Electronic Choices Blank** = Local Display -P Pulse Output -GA 4-20 mA Output, No Display (3 in. and 4 in. meters only) -GG = Pulse Output, With Display (3 in. and 4 in. meters only) 4-20 mA Output, With Display (3 in. and 4 in. meters only) Scaled Pulse Output (3 in. and 4 in. meters only) -GA (Sample Model Number)

### **APPROVALS** Guide

At Great Plains Industries, we've been building rugged, reliable, liquid flowmeters for over 35 years. The GPI Industrial Meter family includes a full line of Precision and Industrial Turbine meters plus Oval Gear meters in various materials, sizes and fitting options.

We design products to meet the needs of our customers. This includes maintaining appropriate, industry standard approvals.

Approvals vary by product line and may be dependent on meter application.

The Approval symbol is listed under product specifications on individual product pages. If no approval mark is found, check the chart to the right. For details about specific "Approvals" refer to the chart.

3-A	<b>3-A Sanitary Standards, Inc.</b> "Flowmeters for Milk and Milk Products, Number 28-03" for GSCPS Models and L Option Meters.
ATEX	Ex II 1 G Per 94/9/EC.
CE	Product reviewed for EMC Directive 2004/108/EC. Includes: Euro Norms 61000-6-2 (2005) and 61000-6-3 (2007) on A1 and G2 Series Meters. Note: For <b>Oval Gear Meters</b> , the CE Approval is applied when meter is part of a system.
FM	Factory Mutual Approved Intrinsically Safe for Class I, II, III, Division 1, All Groups. Nonincendive for Class I, II, III, Division 2 Groups A, B, C, D, F, G.
E FM US APPROVED	Factory Mutual Approved Class 1, Div. 1, Group D (01A31GM Only)
E FM APPROVED	Factory Mutual Approved Intrinsically safe for Class I & II, Div. 1, Groups A, B, C, D, E, F & G, T6 Ta=-40° C to 60° C hazardous locations, and for use in Class I, Zone 0 as Ex is IIC T6 Ta=-40° C to 60° C.
F©	Federal Communication Commission Industry Canada Approval Class B; digital service, part 15 of FCC Rules.
IEC IECEX	Ex ia IIC T6 Ta=60° C
IP44/IP54/IP66	Ingress Protection Code IP44 (Greater than 1 mm and splashed water); IP54 (Dust protected and splashed water); IP66 (Dust-tight and heavy seas).
IP/NEMA	Pulse versions of <b>Oval Gear Meters</b> have enclosure ratings that vary from IP54 / NEMA 13 to IP66 / NEMA 16 depending on the application.
NEMA 4	NEMA Requirements: Enclosure constructed for indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment. Protection against falling dirt, rain, sleet, snow, windblown dust, splashing or hose directed water that will be undamaged by the external formation of ice on the enclosure. GPI products are tested to NEMA requirements.
RoHS	Restriction of Hazardous Substances Directive 2002/95/EC and 2011/65/EU
C US	Indicates that the product was tested and has met the certification requirements for electrical, plumbing and/or mechanical products.