## GBP, GIP & GNP Precision Meters



GNP shown here with Local Display and Mag Pick-Up

For complete part number, see "Meter Number Reference" for this section.

### ACCURACY: ± 0.5%

### Select Your Meter Size:

1/2 inch 1 inch 2 inch 3/4 inch 1-1/2 inch



### **Sensor Options:**

FLOMEC

- Low Drag Pickup (1/2 in. turbines)
- Standard Pickup (3/4 to 3 in. turbines)

### **Electronics Options:**

- GG510 (Display with Pulse Output)
- GX510 (Display with 4-20 mA Output)
- GA510 (4-20 mA Output)
- SC510 (Scaled Pulse Output)

SPECIFICATIONS						
Design Type:		Turbine				
5 71		14151116				
Housing Material:		316 Stainless Steel				
Meter Sizes Available:		4 (0)				
For GNP: NPT (Male) For GBP: BSPP+ (Male)		1/2" 3/4" 1" 1-1/2" 2" 1/2" 3/4" 1" 1-1/2" 2"				
For GIP: ISO	· · · · ·	1/2" 3/4" 1" 1-1/2" 2"				
Flow Range:	•	.,_ 0,,				
riow hallge:	1/2" (050)* 1/2" (051)	0.6 - 6.0 GPM (2.2 - 22 LPM) 0.8 - 6.0 GPM (3.0 - 22 LPM)				
	3/4" (075)	1.6 - 16 GPM (6.0 - 60 LPM)				
	3/4" (075E)	2.3 - 23 GPM (8.7 - 87 LPM)				
	1" (100)	6.7 - 67 GPM (25.2 - 252 LPM)				
	1-1/2" (150)	17.7 - 177 GPM (67.0 - 670 LPM)				
	2" (200)	33 - 330 GPM (125.0 - 1250 LPM)				
Accuracy (Linearity):		± 0.5%				
Repeatability:		± 0.1%				
Pressure Rating:		1/2" to 2" = 5,000 PSI / 340 BAR				
Operating Temperature Range:		-100° F to +185° F (-74° C to + 85° C)				
Typical K-Factor:	1/2" (050)*	10,000 PPG / 2642 PPL				
	1/2" (051)	10,000 PPG / 2642 PPL				
	3/4" (075)	3,750 PPG / 991 PPL				
	3/4" (075E)	2,608 PPG / 689 PPL				
	1" (100) 1-1/2" (150)	896 PPG / 237 PPL 340 PPG / 90 PPL				
	2" (200)	181 PPG / 48 PPL				
M 188 1		1011110/40112				
Wetted Materials:		316 Stainless Steel				
Housing: Sleeve Bearings:		PTFE				
Thrust Bearing:		440C Stainless Steel				
Shaft:		316 Stainless Steel				
Rotor:		CD4MCu Stainless Steel				
Rotor Supports:		316 Stainless Steel				
Retaining Rings:		300 Series Stainless Steel				
Recommended Str	ainer Size:					
	1/2"	40 mesh				
	3/4"	40 mesh				
	1"	40 mesh				
	1-1/2" 2"	18 mesh				
	_					
Frequency Output:		125 - 1000 Hz				
	3/4" (075) 3/4" (075E)	100 - 1000 Hz 100 - 1000 Hz				
	3/4" (0/5E) 1" (100)	100 - 1000 Hz 100 - 1000 Hz				
	1-1/2" (150)	100 - 1000 Hz				
	2" (200)	100 - 1000 Hz				
Calibration Report		Comes standard with G Series meters.				
Samulation nepoli		N.I.S.T. – Certification available.				

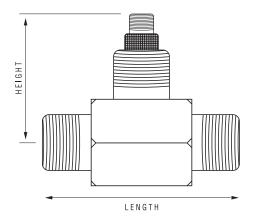
### **APPROVALS**



- \* 1/2 in. (050) requires RF Pickup.
- +ISO 228-1 designation is G.
- ♦ ISO 7-1 BSPT

# **Meter DIMENSIONS**

### **G Series Precision Meters**



	NPT		Sanitary Clamp		Flanged*	
Size	Length inches (mm)	Height inches (mm)	<b>Length</b> inches (mm)	Height inches (mm)	<b>Length</b> inches (mm)	Height inches (mm)
1/2 in.	2.75 (70)	2.56 (65)	2.75 (70)	2.56 (65)	_	_
3/4 in.	3.25 (82)	2.62 (66)	3.25 (82)	2.62 (66)	5.50 (140)	2.00 (51)
1 in.	3.56 (90)	2.75 (70)	3.56 (90)	2.75 (70)	5.50 (140)	2.12 (54)
1-1/2 in.	4.59 (116)	3.00 (76)	4.59 (116)	3.00 (76)	6.00 (152)	2.50 (63)
2 in.	6.06 (154)	3.25 (82)	6.06 (154)	3.25 (82)	6.50 (165)	3.00 (76)
3 in.	10.00 (254)	3.50 (89)	_	_	10.00 (254)	3.75 (95)

<sup>\*</sup> Height on flange meters, measures from center line to top of flange.

## **METER NUMBER REFERENCE**

#### **Product Identifier**

**USE THIS AS A GUIDE – SIZES VARY BY FITTING TYPE.** (Does not apply to model GSCPS - 3A Meters) G = G Series Precision Turbine Meter

See Reference Section for Meter Dimensions.

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Fitting Type
       NPT (Male)
       ISO 7-1 BSPT Taper (Male)
       BSPP (Male)
       Flanged
SC = Sanitary Clamp
             Shaft / Sleeve Bearing / Thrust Bearing
            T- = Tungsten Carbide / Tungsten Carbide / Tungsten Carbide
                   Stainless Steel / PTFE / Stainless Steel
                      Turbine Size & Flowrate
                      -050S = 1/2 in. (0.6 - 6 GPM) Low Flow - Turbine Body Only◆
                      -051S = 1/2 in. (0.8 - 6 GPM) Standard - Uses Low Drag Standard Sensor 1
                      -051H = 1/2 in. (0.8 - 6 GPM) High Temp - Turbine Body Only◆
                      -075S = 3/4 in. (1.6 - 16 GPM) Standard - Uses Standard Sensor 2
                                 3/4 in. (1.6 - 16 GPM) High Temp - Turbine Body Only
                                 3/4 in. (2.32 - 23 GPM) Ext-Range - Uses Standard Sensor 2
                                 3/4 in. (2.32 - 23 GPM) Ext-Range High Temp - Turbine Body Only
                      -100S = 1 in. (6.7 - 67 GPM) Standard - Uses Standard Sensor 2
                                1 in. (6.7 - 67 GPM) High Temp - Turbine Body Only
                      -150S = 1-1/2 in. (17.7 - 177 GPM) Standard - Uses Standard Sensor 2
                                 1-1/2 in. (17.7 - 177 GPM) High Temp - Turbine Body Only
                                 2 in. (33 - 330 GPM) Standard - Uses Standard Sensor 2
                                 2 in. (33 - 330 GPM) High Temp - Turbine Body Only
                      -300S = 3 in. (60-600 GPM) Standard - Uses Standard Sensor 2

    Call GPI for Sensor & Electronics

                                      Sensor Choice
                                       Low Drag Standard Sensor with 12 inch Lead Wires
                                       Standard Sensor with 12 inch Lead Wires
                                       No Sensor - Turbine Body Only
                                            Electronic Choice (Local)*
                                            Turbine Mounted
                                            -5 = GG510 - Standard Display
                                            -6 = GX510 - 4-20 mA Transmitter with Display
                                           -7 = GA510 - 4-20 mA Transmitter
                                            -8 = SC510 - Scaled Pulse Output
                                                   No Electronics - Turbine Body Only

    (Sample Model Number)
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<sup>\*</sup> Electronic Choice not available on all models.

## **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.