G2 SERIES
INTRINSICALLY SAFE

A full line of **FLOMEC® G2 Series Turbine Meters** are available in a variety of housing materials. Rugged and dependable, the G2 Series offers:

- Stainless Steel for most water and chemical products
- Aluminum for fuels and petroleum-based products
- PVDF for aggressive chemicals

FEATURES / BENEFITS

- Meter is designed for thin fluids < 100 cP
- Modular design allows for use with Output Modules, Sensors and Remote Display Kits
- 2 Totals (Batch Total = Resettable, Total = Non-Resettable); Rate of Flow, Factory calibrated in gallons or litres. Field calibratable. Includes non-volatile totals.
- High accuracy meter
- Internal parts are simple to replace for easy maintenance
- AAA Alkaline battery life: 2 years

PRODUCT CONFIGURATION

1 PRODUCT IDENTIFIER:

G2 = Industrial Grade Flowmeters

2 TURBINE MATERIAL:

S = Stainless Steel
A = Aluminum
P = PVDF (1/2 in. y 1 in. only)
X = Electronics only (For metal meters)
Z = Electronics only (For plastic meters)

3 TURBINE SIZE:

05 = ½ in.   **15** = 1-½ in.
07 = ¾ in.   **20** = 2 in.
10 = 1 in.

APPLICATIONS

- Batching
- Blending
- Water
- Industrial fluids
- Plating solutions
- Ammonium
- Food and beverage processing

- Fuel Products
- Monitoring clean fluids
- Plant process water
- Chemical feed lines
- Harsh chemicals (sulfuric acid and bleach)

4 FITTING TYPE:

N = NPT (Female)
I = ISO (Female) BSPT (ISO 7 Designation is RC)
F = 150# ANSI Flange (Available on S10, S15 & S20 only)
T = Tri-Clamp Fitting (Available on S05, S07, S10, S15 & S20 only)
X = No Turbine Body

5 ELECTRONIC CHOICE:

Computer Display, Meter Mounted
Q9 = Q9 2-Button Computer
Q1 = Q9 2-Button Computer, Vertical Mount (90° Adapter)
Retrofit Computer Kit (Display Only
R9 = Q9 2-Button Computer Retrofit Kit (Replaces 09 Display)
No Electronics - Turbine Only
XX = No Electronics - Turbine Only

6 CALIBRATION OF COMPUTER / DISPLAY:

GM = Gallons Per Minute (Gallons Default)
LM = Liters Per Minute (Litres Default)
GD = Gallons Per Minute (Gallons Default) with NIST Certificate
LD = Liters Per Minute (Litres Default) with NIST Certificate
XX = No Calibration

7 PACKAGING:

A = 05 Thru 10 Turbines, Turbine Only or w/Q9 Electronics
   05 Thru 20 Electronics Only (Q9 Replacement Kit or R9 Retrofit Kit)
B = 15 & 20 Turbines, Turbine Only or w/Q9 Electronics
   05 Thru 10 Turbines w/Q1 Electronics
C = 15 Thru 20 Turbine w/Q1 Electronics
D = 10 Turbines with ANSI Flange Turbine Only or w/Q9, Q1 Electronics
E = 15 & 20 Turbines with ANSI Flange Turbine Only or w/Q9, Q1 Electronics

1	2	3	4	5	6	7
--->>>> G2	S	15	N	Q9	GM	B

SPECIFICATIONS

Fitting Type:	NPT or ISO (Female) BSPT (ISO 7 designation is RC)				
	150# ANSI (S10, S15 y S20 only)				
	Tri-Clamp (Stainless Steel only) - Fitting size is one size bigger than meter size				
Meter Sizes Available:	1/2"	3/4"	1"	1-1/2"	2"
Corresponding Tri-Clamp Fitting:	3/4"	1"	1-1/2"	2"	2-1/2"
Housing Material:	316 Stainless Steel, Aluminum, PVDF				
Flow Range:	1/2" (05)	1 - 10 GPM		(3.8 - 38 L/min)	
	1/2" (05) *PVDF Only*	1.2 - 12 GPM		(4.5 - 45 L/min)	
	3/4" (07)	2 - 20 GPM		(7.6 - 76 L/min)	
	1" (10)	5 - 50 GPM		(19 - 190 L/min)	
	1-1/2" (15)	10 - 100 GPM		(38 - 380 L/min)	
	2" (20)	20 - 200 GPM		(76 - 760 L/min)	
Accuracy (% of Reading):		**Turbine Only**		**Turbine w/Computer**	
	1/2" (05)	± 2.0%		± 1.5%	
	3/4" (07)	± 1.5%		± 1.0%	
	1" (10)	± 1.5%		± 1.0%	
	1-1/2" (15)	± 1.0%		± 0.75%	
	2" (20)	± 1.0%		± 0.75%	
Repeatability:	± 0.1% (PVDF is ± 0.3%)				

Pressure Rating:

Pressure Rating:	
Stainless Steel 316 SS	1,500 psi (102 bar)
Aluminum	300 psi (21 bar)
ANSI Flange 316 SS	Flange Rule
Sanitary Flange 316 SS	Limited by fitting, clamp size, & temperature
PVDF	100 psi (6.9 bar)
Operating Temperature Range:	-40° F to 250° F (-40° C to 121° C)
	(PVDF) -20° F to 180° F (-28° C to 82° C)
with Intrinsically Safe Display:	0° F to +129° F (-18° C to +54° C)

Typical K-Factor:	1/2" (05)	2,500 PPG (660 Pulses/L)
	3/4" (07)	1,100 PPG (291 Pulses/L)
	1" (10)	565 PPG (149 Pulses/L)
	1-1/2" (15)	215 PPG (57 Pulses/L)
	2" (20)	100 PPG (26 Pulses/L)

Wetted Materials:	Housing:	316 Stainless Steel or Aluminum
	Bearings:	96% Alumina Oxide Ceramic
	Shaft:	Tungsten Carbide
	Rotor:	PVDF
	Rings:	316 Stainless Steel

Wetted Materials PVDF:	Housing:	PVDF (15% Carbon Fiber Filled)
	Bearings & Shaft:	98% Alumina Ceramic
	Rotor:	PVDF
	Rings:	Fluorocarbon (Optional PTFE)

Frequency Range:	1/2" (05)	42-420 Hz @ 1-10 GPM (3.8-38 L/min) / 45-450 Hz @ 1.2-12 GPM (4.5-45 L/min) (PVDF)
	3/4" (07)	37-370 Hz @ 2-20 GPM (7.6-76 L/min)
	1" (10)	47-470 Hz @ 5-50 GPM (19-190 L/min) / 45-475 Hz @ 5-50 GPM (19-190 L/min) (PVDF)
	1-1/2" (15)	36-360 Hz @ 10-100 GPM (38-380 L/min)
	2" (20)	33-330 Hz @ 20-200 GPM (76-760 L/min)

Calibration Report:	Comes standard with G2 Series meters.
	N.I.S.T. – Certification available.

DIMENSIONS
NOTE: Q9 Display adds 0.72 in. (18 mm) to height

Stainless Steel Models

|	S05, ½ in.	S07, ¾ in.	S10, 1 in.	S15, 1½ in.	S20, 2 in.
A = Height	1.4 in. (35.6 mm)	1.6 in. (40.6 mm)	1.9 in. (48.3 mm)	2.6 in. (66.0 mm)	3.1 in. (78.7 mm)
B = Width	2.0 in. (50.8 mm)	2.0 in. (50.8 mm)	2.0 in. (50.8 mm)	2.7 in. (68.6 mm)	3.4 in. (86.4 mm)
C = Length	4.2 in. (106.7 mm)	4.3 in. (109.2 mm)	4.5 in. (114.3 mm)	5.3 in. (134.6 mm)	6.3 in. (160.0 mm)

Aluminum Models

	A05, ½ in.	A07, ¾ in.	A10, 1 in.	A15, 1½ in.	A20, 2 in.
A = Height	1.8 in. (45.7 mm)	2.0 in. (50.8 mm)	2.2 in. (55.9 mm)	2.8 in. (71.1 mm)	3.2 in. (81.3 mm)
B = Width	2.0 in. (50.8 mm)	2.0 in. (50.8 mm)	2.0 in. (50.8 mm)	2.7 in. (68.6 mm)	3.3 in. (83.8 mm)
C = Length	4.2 in. (106.7 mm)	4.3 in. (109.2 mm)	4.5 in. (114.3 mm)	5.3 in. (134.6 mm)	6.3 in. (160.0 mm)

PVDF Models

	P05, ½ in.	P10, 1 in.
A = Height	3.2 in. (81.3 mm)	3.3 in. (83.8 mm)
B = Width	2.1 in. (53.3 mm)	2.8 in. (71.1 mm)
C = Length	7.3 in. (185.4 mm)	8.1 in. (205.7 mm)

NOTE: For representation purpose only. Actual product models vary in shape, design, etc

ANSI Flange and Sanitary Flange dimensions not shown. For those dimensions, please refer to product manuals or our website FLOMECmeters.com.
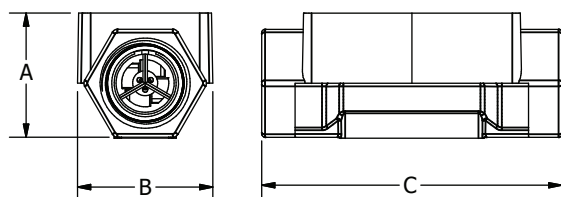
ACCESSORIES

Part No.	Description	Part No.	Description
120077-01	FM Approved Sensor	113275-10	FM Approved Remote Kit
120077-02	ATEX Approved Sensor	125206-2	1/2 in. Teflon O-Ring for PVDF Meter (2)
125260-02	90° Display Adaptor Kit	125206-1	1 in. Teflon O-Ring for PVDF Meter (2)

APPROVALS

CE · ATEX Ex · NEMA 4 · FM APPROVED · C FM US APPROVED · IP65 · IEC · IECEx

Service & Warranty: For technical assistance, warranty replacement or repair contact your FLOMEC® or GPI® distributor: In North or South America: **888-996-3837 / FLOMECmeters.com**
Outside North or South America: **+61 2 9540 4433 / FLOMECmeters.com**

PRODUCT CONFIGURATION

PRODUCT IDENTIFIER 1

02 = Electronic Digital Flowmeter

HOUSING CHOICE 2

A = Aluminum
N = Nylon

FITTING TYPE 3

12 = 1" BSPT (Female)
31 = 1" NPT (Female)
52 = 1" BSPP (Female)
X = No Turbine

CALIBRATION 4

GM = Gallons / Minute
LM = Litres / Minute
XX = No Computer

1	2	3	4
--->>>> 02	N	31	GM

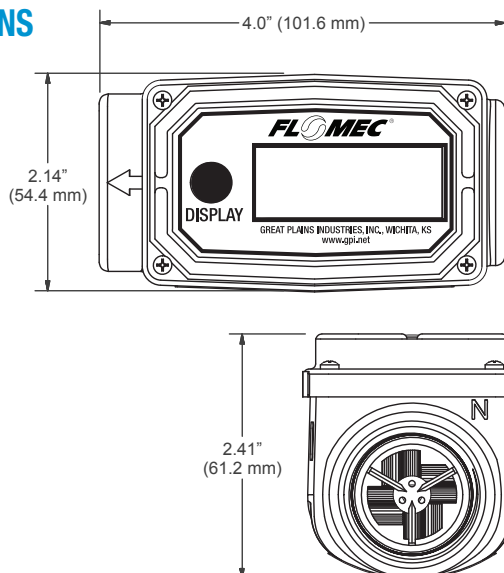## 02 SERIES ELECTRONIC FLOWMETER WITH SCALED PULSE OUTPUT

The **FLOMEC® 02 Series** is a lightweight, accurate and reliable turbine meter. Choose the 02 Series for thin viscosity fluid applications.

- Available in Aluminum or Nylon
- Virtually maintenance free
- Display powered by two AAA batteries
- Offers one pulse per unit (gallons and litres)

FEATURES / BENEFITS

- Complete meter, including turbine assembly, microprocessor and LCD readout.
- Two Totals: Batch (Resettable to measure flow during a single use) and Cumulative (Non-resettable, to provide continuous measurement).
- Remote monitor option to connect to an external system (NPN Open Collector Pulse)
- Lightweight, compact design allows for easy installation.
- Display powered by two AAA alkaline batteries that are easy to replace, with the meter installed.

INTERNAL PULL-UP RESISTOR

Some interface devices may not have an internal pull-up resistor. Use a minimum 820 ohms resistor if necessary.

DIMENSIONS

4.0" (101.6 mm)

2.14" (54.4 mm)

DISPLAY

GREAT PLAINS INDUSTRIES, INC., WICHITA, KS
www.gpi.net

2.41" (61.2 mm)
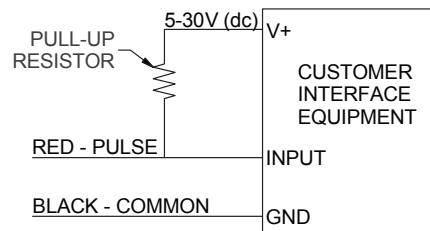
APPLICATIONS

- Irrigation
- Building Automation (Chillers)
- Programmable Logic Controller (Batch Control)
- OEM (connect to flow switch - low cost meter
- Connect to flow switch

- Diesel & Fuel Oil
- Data Logger
- Wireless Communication
- Numerous water applications
- Batch Controller

SPECIFICATIONS

Fitting Size / Fitting Type:	1" BSPT (Female)	
	1" NPT (Female)	
	1" BSPP (Female)	
Flowrate:	3 - 30 GPM	11 - 113 L/min
Accuracy (% of Reading):	± 5.0%	
Pressure Rating:	150 psi (10.3 bar)	
Operating Temperature Range:	+14° F to +130° F (-10° C to +55° C)	
Pulse Out Description:	Open Collector (a.k.a. NPN or Current Sinking	
Pulse Duration:	250 ms	
Pulse Amplitude:	5 to 30 V (dc)	
Scaling:	One pulse per Gallon or Litre	
Cable Length:	5 ft. (1.5 m)	

Wetted Materials (Aluminum):	Housing:	Aluminum
	Bearings:	Ceramic
	Shaft:	Tungsten Carbide
	Rotor:	Nylon
	Rings:	316 Stainless Steel
	Signal Generator	Ferrite
Wetted Materials (Nylon:	Housing:	Nylon
	Bearings:	Ceramicw
	Shaft:	Tungsten Carbide
	Rotor:	Nylon
	Rings:	316 Stainless Steel
	Signal Generator	Ferrite

APPROVALS

CE

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A1 SERIES FLOWMETERS,
ALUMINUM OPTION

FLOMEC® A1 Series Meters are designed as self-contained, battery-powered units. Select the A1 Series when you need an accurate meter for thin petroleum-based fluid applications.

- Available in Aluminum
- Available in three sizes
- Designed for thin petroleum based fluids

FEATURES / BENEFITS

- Unique package combines Turbine and LCD into a self-contained, compact, economical meter
- Local Display Computer features: 2 Non-Volatile Totals (Batch Total = Resettable, Total = Non-resettable) and Rate of Flow
- Output capabilities available to communicate with process control equipment
- Lightweight, compact design allows for easy installation
- AAA Alkaline battery life: 2 years
- 12 selectable engineering units (gallons or liters are standard defaults)
- Factory calibration

APPLICATIONS
- Fuel Transfer
- Batching / Blending
- Fuel Products

PRODUCT CONFIGURATION

1 PRODUCT IDENTIFIER:
A1 = Electronic Digital Meter

2 ELECTRONIC CHOICE:
Computer Display, Meter Mounted
Q9 = Q9 2-Button Computer

Computer Display & Module, Meter Mounted*
P9 = Q9 2-Button Computer w/Pulse Out Module, includes External Power and 10 ft. of Cable
42 = Q9 2-Button Computer w/4-20mA Module and 10 ft. of Cable

Module, Meter Mounted (No Display)*
PO = Pulse Out (Unscaled) Conditioned Signal Module w/Cable

Retrofit Computer Kit (Display Only)
R9 = Q9 2-Button Computer Retrofit Kit (Replaces 09 Display)

No Electronics - Turbine Only
XX = No Electronics - Turbine Only

*All Electronics Approvals Void

3 CALIBRATION:
GM = Factory Default Calibration in Gallons
LM = Factory Default Calibration in Liters
XX = No Computer

4 TURBINE SIZE:
A025 = Aluminum - Low Flow
A100 = Aluminum - 1 inch
A200 = Aluminum - 2 inch
X### = No Turbine**

**When ordering Display Only, the ### should be the turbine size.

5 FITTING TYPE:
N = NPT (Female)
I = ISO (Female) BSPT
B = BSPP Female
X = No Turbine

6 PACKAGING:
With FM, ATEX & IEC Approval for HAZARDOUS AREA
A1 = Standard or Low Flow, 1 inch (w/Q9 & R9 Electronics Choice)
A2 = Standard, 2 inch (w/Q9 & R9 Electronics Choice)
B1 = Standard or Low Flow, 1 inch Turbine Only
B2 = Standard, 2 inch Turbine Only
B3 = Display Only

Non-Approved Version - SAFE AREA ONLY
C2 = Low Flow through 2 inch Turbines (w/P9, 42, & PO Electronics Choice)

1	2	3	4	5	6
--->>>> A1	Q9	GM	A100	N	A1

APPROVALS† CE ATEX Ⓔx NEMA 4
FM APPROVED c FM us APPROVED IP65 IEC IECEx

†All A1 Series Q9 Displays have the CE, NEMA 4, and IP65 approval.

SPECIFICATIONS

Meter Sizes Available:		A025 (Low Flow), A100 (1 inch), A200 (2 inch)
Design Type:	A025	Paddlewheel
	A100	Turbine
	A200	Turbine
Fitting Size / Fitting Type:	A025	1 inch / NPT, ISO[+] or BSPP (Female)
	A100	1 inch / NPT, ISO[+] or BSPP (Female)
	A200	2 inch / NPT, ISO[+]
Flow Range:	A025	0.3 - 3 GPM	1 - 11 L/min
	A100	3 - 50 GPM	11 - 190 L/min
	A200	30 - 300 GPM	114 - 1,135 L/min
Accuracy (% of Reading):		A025: Application Dependent[1]
		A100, A200: ± 1.5%
Repeatability:	A025	± 1.0%
	A100	± 0.2%
	A200	± 0.2%

[+]*ISO 7 Designation is RC.*
[1]*Accuracy can vary up to ± 5% depending on installation and fluid type. Field calibration is recommended for best accuracy.*

Pressure Rating (Aluminum):		300 psi (21 bar)
Operating Temperature Range:		-40° F to 250° F (-40° C to 121° C)
with Safe Area Only Display:		0° F to 140° F (-18° C to 60° C)
with Intrinsically Safe Display:		0° F to 129° F (-18° C to 54° C)
Typical K-Factor:	A025	2,200 PPG (581 Pulses/L)
	A100	730 PPG (193 Pulses/L)
	A200	72 PPG (19 Pulses/L)
Frequency Range:	A025	11-110 Hz @ 0.3-3 GPM (1-11 L/min)
	A100	36.5-608.3 Hz @ 3-50 GPM (11-190 L/min)
	A200	36-360 Hz @ 30-300 GPM (114-1135 L/min)
Recommended Strainer Size:	A025	55 mesh (275 μm)
	A100	28 mesh (700 μm)
	A200	28 mesh (700 μm)
Wetted Materials (Aluminum):	Housing:	Aluminum
	Bearings:	Ceramic (96% Alumina)
	Shaft:	Tungsten Carbide
	Rotor:	Nylon
	Rings:	316 Stainless Steel
Calibration Report:		Comes standard with A1 Series meters.
		N.I.S.T. – Certification available.

DIMENSIONS

	A025, 1 in. Low Flow	A100, 1 in.	A200, 2 in.
A = Height*	2.5 in. (6.3 cm)	2.5 in. (6.3 cm)	4.25 in. (11.4 cm)
B = Width	2.0 in. (5.1 cm)	2.0 in. (5.1 cm)	3.0 in. (7.6 cm)
C = Length	4.0 in. (10.1 cm)	4.0 in. (10.1 cm)	6.0 in. (15.2 cm)

*Height includes 0.7 in. (1.8 cm) for the computer electronics.

ACCESSORIES

Part No.	Description
113275-10	FM Approved Remote Kit Assembly[‡]
113435-10	Conditioned Signal Output Module
125260-02	90° Display Adapter Kit
120077-01	FM Approved Sensor Kit[‡]
120077-02	ATEX Approved Sensor Kit[‡]
113524-01	Connector Kit for FM or ATEX Approved Sensor[‡]
125060-10	Pulse Out, External Power, Scaled Pulse Module
125100-10	4-20 mA Module

[‡]*Does not make Non-FM or Non-ATEX Approved meters FM or ATEX Approved.*

A1 SERIES FLOWMETERS, NYLON OPTION

FLOMEC® A1 Series Meters are designed as self-contained, battery powered units. Select the A1 Series when you need an accurate meter for water or non-aggressive chemical applications.

- Available in Nylon
- Nylon meter for use in water or non-aggressive chemical applications

FEATURES / BENEFITS

- Unique package combines Turbine and LCD into a self-contained, compact, economical meter
- Local Display Computer features: 2 Non-Volatile Totals (Batch Total = Resettable, Total = Non-resettable) and Rate of Flow
- Output capabilities available to communicate with process control equipment
- Lightweight, compact design allows for easy installation
- AAA Alkaline battery life: 2 years
- 12 selectable engineering units (gallons or liters are standard defaults)
- Factory calibration

APPLICATIONS

- Plant Process Water
- Batching / Blending
- Water / Non-Aggressive Chemicals
- Ag Chemicals
- Solvents / Glycol
- Chemical Feed Lines

PRODUCT CONFIGURATION

1 PRODUCT IDENTIFIER:
A1 = Electronic Digital Meter

2 ELECTRONIC CHOICE:
Computer Display, Meter Mounted
Q9 = Q9 2-Button Computer

Computer Display & Module, Meter Mounted*
P9 = Q9 2-Button Computer w/Pulse Out Module, includes External Power and 10 ft. of Cable
42 = Q9 2-Button Computer w/4-20mA Module and 10 ft. of Cable

Module, Meter Mounted (No Display)*
PO = Pulse Out (Unscaled) Conditioned Signal Module w/Cable

Retrofit Computer Kit (Display Only)
R9 = Q9 2-Button Computer Retrofit Kit (Replaces 09 Display)

No Electronics - Turbine Only
XX = No Electronics - Turbine Only

*All Electronics Approvals Void

3 CALIBRATION:
GM = Factory Default Calibration in Gallons
LM = Factory Default Calibration in Liters
XX = No Computer

4 TURBINE SIZE:
N025 = Nylon - Low Flow
N100 = Nylon - 1 inch
X### = No Turbine**

**When ordering Display Only, the ### should be the turbine size.

5 FITTING TYPE:
N = NPT (Female)
I = ISO (Female) BSPT
X = No Turbine

6 PACKAGING:
With FM, ATEX & IEC Approval for HAZARDOUS AREA
A1 = Standard or Low Flow, 1 inch (w/Q9 & R9 Electronics Choice)
A2 = Standard, 2 inch (w/Q9 & R9 Electronics Choice)
B1 = Standard or Low Flow, 1 inch Turbine Only
B3 = Display Only

Non-Approved Version - SAFE AREA ONLY
C2 = Low Flow and 1 inch Turbines (w/P9, 42, & PO Electronics Choice)

1	2	3	4	5	6
--->>>> A1	Q9	GM	N100	N	A1

APPROVALS†

CE | ATEX Ⓔx | NEMA 4

FM APPROVED | c FM us APPROVED | IP65 | IEC | IECEx

†All A1 Series Q9 Displays have the CE, NEMA 4, and IP65 approval.

FLOMEC®

SPECIFICATIONS

Meter Sizes Available:		N025 (Low Flow), N100 (1 inch)	
Design Type:	N025	Paddlewheel	
	N100	Turbine	
Fitting Size / Fitting Type:	N025	1 inch / NPT, ISO[+] (Female)	
	N100	1 inch / NPT, ISO[+] (Female)	
Flow Range:	N025	0.3 - 3 GPM	1 - 11 L/min
	N100	3 - 50 GPM	11 - 190 L/min
Accuracy (% of Reading):		N025: Application Dependent[1]	
		N100: ± 1.5%	
Repeatability:		N025	± 1.0%
		N100	± 0.2%

[+]ISO 7 Designation is RC.
[1]Accuracy can vary up to ± 5% depending on installation and fluid type.
Field calibration is recommended for best accuracy.
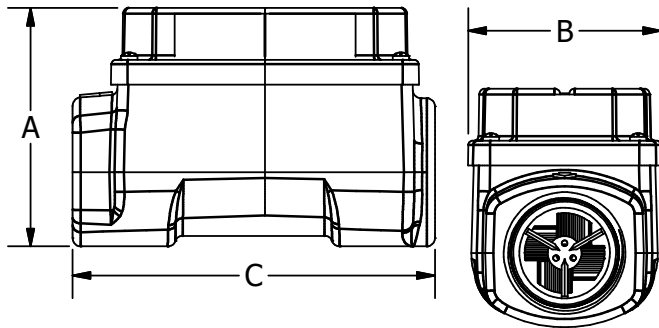
DIMENSIONS

	N025, 1 in. Low Flow	N100, 1 in.
A = Height*	2.5 in. (6.3 cm)	2.5 in. (6.3 cm)
B = Width	2.0 in. (5.1 cm)	2.0 in. (5.1 cm)
C = Length	4.0 in. (10.1 cm)	4.0 in. (10.1 cm)

*Height includes 0.7 in. (1.8 cm) for the computer electronics.

Pressure Rating (Nylon):		150 psi (10.3 bar)	
Operating Temperature Range:		-40° F to 250° F (-40° C to 121° C)	
with Safe Area Only Display:		0° F to 140° F (-18° C to 60° C)	
with Intrinsically Safe Display:		0° F to 129° F (-18° C to 54° C)	
Typical K-Factor:	N025	2200 PPG (581 Pulses/L)	
	N100	730 PPG (193 Pulses/L)	
Frequency Range:	N025	11-110 Hz @ 0.3-3 GPM (1-11 L/min)	
	N100	36.5-608.3 Hz @ 3-50 GPM (11-190 L/min)	
Recommended Strainer Size:		N025	55 mesh (275 µm)
		N100	28 mesh (700 µm)
Wetted Materials (Nylon:	Housing:	Nylon	
	Bearings:	Ceramic (96% Alumina)	
	Shaft:	Tungsten Carbide	
	Rotor:	Nylon	
	Rings:	316 Stainless Steel	
Calibration Report:		Comes standard with A1 Series meters.	
		N.I.S.T. – Certification available.	

ACCESSORIES

Part No.	Description
113275-10	FM Approved Remote Kit Assembly[‡]
113435-10	Conditioned Signal Output Module
125260-02	90° Display Adapter Kit
120077-01	FM Approved Sensor Kit[‡]
120077-02	ATEX Approved Sensor Kit[‡]
113524-01	Connector Kit for FM or ATEX Approved Sensor[‡]
125060-10	Pulse Out, External Power, Scaled Pulse Module
125100-10	4-20 mA Module

[‡]Does not make Non-FM or Non-ATEX Approved meters FM or ATEX Approved.

Wichita · Sydney GREAT PLAINS INDUSTRIES GPI®

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Service & Warranty: For technical assistance, warranty replacement or repair contact your **FLOMEC®** or **GPI®** distributor: In North or South America: **888-996-3837 / FLOMECmeters.com**
Outside North or South America: **+61 2 9540 4433 / FLOMECmeters.com**
IND-1043-A1 Nylon Rev A 02/2022

TP050

- Shown with RT14 Electrical Option (TP050S1T1-211R5)

Additional meter configurations available.

TP SERIES TURBINE FLOWMETER

FLOMEC® TP Series Flowmeters measure flows of low viscosity liquids from 0.5 to 2420 gallons/min (1.8 to 9160 litres/min) in a range of sizes from ½ to 6 inches (15 to 150mm). Installation orientation is horizontally or vertically, and they are available with hazardous area ATEX, IECEx, and Intrinsically Safe (IS) certifications.

FEATURES / BENEFITS

- High accuracy and repeatability, direct reading flowmeter
- Wide flow range
- Rugged and compact design
- IS hazardous area versions available
- Integral 4-20mA option

GENERAL SPECIFICATIONS

Suits Pipe Sizes	½ - 6 inches (15-150mm)
Pipe Connections*	NPT, BSP, ANSI #150, ANSI #300, PN16 DIN*
Accuracy (@ cP)	± 0.5% of reading
Viscosity Range	0.5 - 10cP
Temperature Range	-40º to +450º F (-40º to +232º C)**
Wetted Materials	316SS Bearing support & body, 431SS rotor, Tungsten Carbide bearing
Maximum Pressure	3625 psi (250 bar)
Protection Class	IP66/67 (NEMA4X), optional I.S. (Intrinsically Safe) Integral options

*Threaded meters available for ½ – 2 inches only.
**With high temperature pickup option.

PRODUCT CONFIGURATION

1 PRODUCT IDENTIFIER:

TP010 = ½ inch (15mm) 0.5-5 GPM (1.8-18 L/min)
TP012 = ¾ inch (20mm) 1-10 GPM (3.8-37.9 L/min)
TP015 = ¾ inch (20mm) 1.8-18 GPM (6.7-67 L/min)
TP020 = ¾ inch (20mm) 3.6-36 GPM (13-130 L/min)
TP025 = 1 inch (25mm) 7-70 GPM (27-270 L/min)
TP040 = 1 ½ inch (40mm) 15-150 GPM (57-570 L/min)
TP050 = 2 inch (50mm) 30-300 GPM (113-1130 L/min)
TP080 = 3 inch (80mm) 60-600 GPM (225-2250 L/min)
TP0100 = 4 inch (100mm) 120-1200 GPM (450-4500 L/min)
TP0150 = 6 inch (150mm) 242-2420 GPM (916-9160 L/min)

2 BODY MATERIAL:

S = 316 Stainless Steel - 3500 psi (250 bar) max.

3 PROCESS CONNECTIONS:

1T1 = BSPP male threaded / One
2T1 = NPT male threaded / One
4C1 = ANSI-150 RF flanges (Carbon Steel) / One
4S1 = ANSI-150 RF flanges (316SS) / One
5C1 = ANSI-300 RF flanges (Carbon Steel) / One
5S1 = ANSI-300 RF flanges (316SS) / One
7C1 = PN16 DIN flanges (Carbon Steel) / One
7S1 = PN16 DIN flanges (316SS) / One

4 ELECTRICAL CONNECTION:

-1 = Military Style Connector (required for no electrical option)
-2 = Flying Leads (required for electrical options)

5 PICK-OFF TYPE:

11 = Standard (250º F [120º C] max.)
21 = High Temp (450º F [232º C] max.)
31 = ATEX/IECEx approved intrinsically safe 250º F [120º C] max.) (only available with R6, F19 or No Electrical Option)
51 = Amplified (5-30V (dc) supply tracking pulse) 250º F [120º C] max.)

6 ELECTRICAL OPTIONS:

Blank = No Electrical Option
JB = Junction Box
R4 = RT40 Backlit Rate Totalizer (Alloy housing with facia protector) (Requires Pick-off Type 11)
R5 = RT14 Backlit Rate Totalizer with scaled pulse, alarms and 4-20mA (GRN housing) (Requires Pick-off Type 11)
R6 = RT14 IECEx/ATEX Intrinsically Safe Rate Totalizer with 4-20mA and Pulse Outputs (GRN housing) (Requires Pick-off Type 31)
R7 = RT40 Backlit Rate Totalizer (GRN housing with facia protector) (Requires Pick-off Type 11)
F18 = F018 Backlit Rate Totalizer with 4-20mA and Pulse Outputs, and HART (Requires Pick-off Type 11)
F19 = IECEx/ATEX Backlit Rate Totalizer with 4-20mA and Pulse Outputs, and HART (Requires Pick-off Type 31)

7 CALIBRATION:

Blank = Display in Liters (DEFAULT)
G = Display in U.S. Gallons

1	2	3	4	5	6	7
--->>>> TP050	S	1T1	-2	11	R5	

DIMENSIONS

Flowmeter Model	A	B	C
TP010	5 in. (127mm)	2.52 in. (64mm)	½ in. (15mm) BSP or NPT
TP012	5 in. (127mm)	2.52 in. (64mm)	¾ in. (20mm) BSP or NPT
TP015	5 in. (127mm)	2.52 in. (64mm)	¾ in. (20mm) BSP or NPT
TP020	5.51 in. (140mm)	3.27 in. (83mm)	¾ in. (20mm) BSP or NPT
TP025	5.98 in. (152mm)	3.50 in. (89mm)	1 in. (25mm) BSP or NPT
TP040	7.01 in. (178mm)	4.52 in. (115mm)	1½ in. (40mm) BSP or NPT
TP050	7.76 in. (197mm)	5.23 in. (133mm)	2 in. (50mm) BSP or NPT
TP080	10 in. (254mm)	–	–
TP0100	14.01 in. (356mm)	–	–
TP0150	14.49 in. (368mm)	–	–

Flanged   *Threaded*
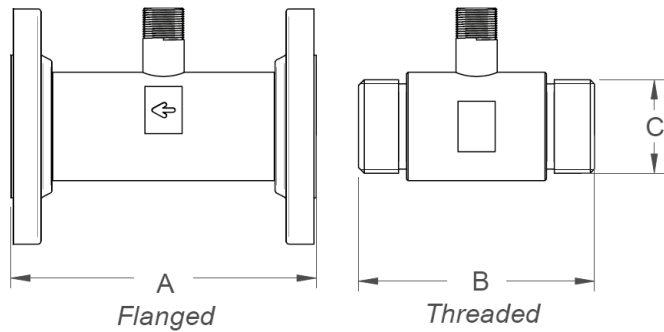
APPLICATIONS

- Fuel
- Alcohols
- Solvents
- Insecticides
- Water
- Light Hydraulic Oils

CERTIFICATIONS

ATEX Ⓔx   IEC.   IECEx

MS Connector   Junction Box   RT14 / EB Register   RT40 Register
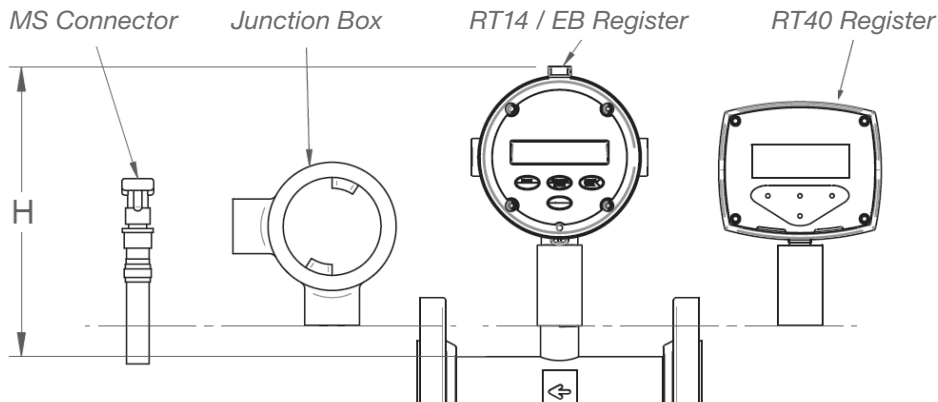
Options	H
MS Connector	4.64 in. (118mm)
Junction Box	5.91 in. (150mm)
RT14 / EB11	8.27 in. (210mm)
RT40	7.28 in. (185mm)

FLOMEC®

G SERIES SANITARY CLAMP HIGH TEMPERATURE (SIP) (PRECISION TURBINE METERS)

The G Series High Precision Meter is the most accurate of all the FLOMEC® Turbine Meters:

FEATURES / BENEFITS

- Meter includes a traditional design
- Available in a variety of sizes
- Low Profile option available

APPLICATIONS

- Fuel
- Batching
- Food & Beverage
- Petro Chemicals
- Pharmaceuticals
- Thin Viscosity Fluids Under 100 Centipoise
- Process Control
- Chemical Feed Lines
- Irrigation
- High Water Volume Mixing
- High Precision / High Pressure

PRODUCT CONFIGURATION

PRODUCT IDENTIFIER 1

G = G Series Precision Turbine Meter

FITTING TYPE 2

SC = Sanitary Clamp

SHAFT / SLEEVE BEARING / THRUST BEARING 3

PS = Stainless Steel / PEEK / PEEK

TURBINE SIZE & FLOWRATE 4

- **-100** = 1" Turbine, 1-1/2" Clamp
- **-100L** = 1" Turbine, 1-1/2" Clamp, Low Profile Adapter
- **-150** = 1-1/2" Turbine, 1-1/2" Clamp
- **-150L** = 1-1/2" Turbine, 1-1/2" Clamp, Low Profile Adapter
- **-200** = 2" Turbine, 2" Clamp
- **-200L** = 2" Turbine, 2" Clamp, Low Profile Adapter

	1	2	3	4
--->>>>	G	SC	PS	-150

APPROVALS

CIP   SIP

GSCPS Meters carry a

Sanitary Rating.
Flowmeters for milk and milk products, Number 28-04.

This meter meets the strict 3-A Sanitary Standards using the new "Third Party Verification" (TPV) program. Our methods of design, construction and traceability of components have been reviewed and approved.

The internals of this meter are machined or polished to meet 3-A self-draining and cleaning requirements (Ra 32). The GSCPS Meter meets Clean in Place (CIP), Steam in Place (SIP) and Clean Out of Place (COP) requirements.

SPECIFICATIONS

Design Type:	Turbine	
Fitting Type:	Sanitary Clamp	
Housing Material:	316 Stainless Steel	
Meter Sizes Available:		
For GSCPS	1" 1-1/2" 2"	
Meter ID:	1" --> 1-1/2" Fitting	
	1-1/2" --> 1-1/2" Fitting	
	2" --> 2" Fitting	
Flow Range:	1" (100)	6.7 - 67 GPM	(25 - 252 L/min)
	1-1/2"(150)	17.7 - 177 GPM	(67 - 670 L/min)
	2" (200)	33 - 330 GPM	(125 - 1250 L/min)
Accuracy (Linearity):	± 0.5%	
Repeatability:	± 0.1%	
Pressure Rating:	Limited by fitting size, clamp size and temperature.	
Operating Temperature Range:		
For GSCPS:	-100° F to 225° F (-74° C to 107° C)	
For SIP (up to 1 hour):	285° F (140° C)	
Typical K-Factor:	1" (100)	896 PPG (237 Pulses/L)
	1-1/2"(150)	340 PPG (90 Pulses/L)
	2" (200)	181 PPG (48 Pulses/L)

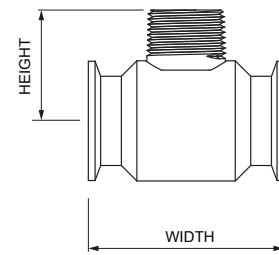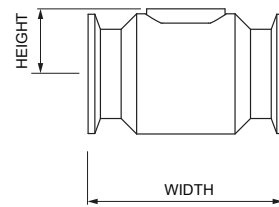| Wetted Materials:	Housing:	316 Stainless Steel
	Bushings & Bearings:	PEEK
	Shaft:	316 Stainless Steel
	Rotor:	CD4MCu Stainless Steel
	Rotor Supports:	316 Stainless Steel
	Retaining Rings:	300 Series Stainless Steel
Recommended Strainer Size:	1"	40 mesh (420 μm)
	1-1/2"	18 mesh (1000 μm)
	2"	14 mesh (1410 μm)
Frequency Output:	1" (100)	100 - 1000 Hz
	1-1/2"(150)	100 - 1000 Hz
	2" (200)	100 - 1000 Hz
Calibration Report:	Comes standard with G Series meters.	
	N.I.S.T. – Certification available.	

ACCESSORIES / ELECTRONICS

Part No.	Description
80001101	Weather proof enclosure - Zinc
80001105	Weather proof enclosure - SS
F Series (F018/F127/F130)	Remote Electronics
145506-01	Kit, Adapter, G Series-QSI1-Q09 Display
145506-02	Kit, Adapter, G Series-QSI2-Q09 Display
145506-03	Kit, Adapter, G Series-QSI3-Q09 Display
145506-04	Kit, Adapter, G Series-QSI1-No Display
145506-05	Kit, Adapter, G Series-QSI2-No Display
145506-06	Kit, Adapter, G Series-QSI3-No Display

DIMENSIONS

Meter Size	Length " (mm)	Height " (mm)
1"	3.56 (90)	1.84 (47)
1-1/2"	4.59 (116)	2.11 (53)
2"	6.06 (154)	2.39 (61)

GSCPS STANDARD

Meter Size	Length " (mm)	Height " (mm)
1"	3.56 (90)	1.03 (26)
1-1/2"	4.59 (116)	1.21 (31)
2"	6.06 (154)	1.45 (37)

GSCPS LOW PROFILE

Service & Warranty: For technical assistance, warranty replacement or repair contact your **FLOMEC®** or **GPI®** distributor: In North or South America: **888-996-3837 / FLOMEC.net**
Outside North or South America: **+61 2 9540 4433 / FLOMEC.net**

03/19
IND-1043-GSCPS Series (Sanitary Clamp)

Wichita ⁄ Sydney

GREAT PLAINS INDUSTRIES GPI