FLOMEC™

Flowmeter Catalog

version eight

PARTNERSHIP IN MOTION™

GREAT PLAINS INDUSTRIES GPI®

Table of **CONTENTS**

Great Plains Industries (GPI) has recently purchased Trimec Industries of Australia. This mutually beneficial acquisition has enabled GPI to greatly expand its domestic and international markets via the FLOMEC™ brand of flowmeters.

NOTE: **Specifications may be subject to change without prior notice.**

QSTAR ULTRASONIC FLOWMETERS (UFM)

These meters are available in two models:

- A portable for mobile sampling measurements
- A fixed for measuring tasks over an extended period of time and continuous measurements in fixed installations.

Both units use the proven and highly precise ultrasonic transit time difference method.

By employing state-of-the-art digital processors, these robust measurement flowmeters are extremely accurate and drift-free.

The non-intrusive flow measurement is virtually:

- 100% leak-proof
- 100% pressure-resistant
- 100% drift-free
- 100% wear-free and thus maintenance-free
- 100% free of pressure loss and thus energy-saving

METER NUMBER REFERENCE

PRODUCT IDENTIFIER

QM = Ultrasonic Flowmeter with QStar Technology

CLAMP-ON MOUNTING TYPE

E = Fixed Energy *
F = Fixed
P = Portable

TRANSDUCER CHOICE AND PIPE SIZE

05 = 1/2 MHz for Pipe Sizes 8" to 240"
10 = 1 MHz for Pipe Sizes 1.5" to 16"
20 = 2 MHz for Pipe Sizes 1/2" to 4"

QM + F + 05

ACCESSORIES

QMF-PT100	=	Temperature Sensors, Fixed (16 ft. / 4.87 m)
QMP-PT100	=	Temperature Sensors, Portable (16 ft. / 4.87 m)
QMF-F05	=	Transducer, 0.5 MHz, 1 Pair, Fixed (16 ft. / 4.87 m)
QMF-F10	=	Transducer, 1 MHz, 1 Pair, Fixed (16 ft. / 4.87 m)
QMF-F21	=	Transducer, 2 MHz, 1 Pair, Fixed (16 ft. / 4.87 m)
QMP-F05	=	Transducer, 0.5 MHz, 1 Pair, Portable (BNC)
QMP-F10	=	Transducer, 1 MHz, 1 Pair, Portable (BNC)
QMP-F21	=	Transducer, 2 MHz, 1 Pair, Portable (BNC)
QMS-WTG	=	Thickness Gauge

SPARE PARTS

QMF-CASE	=	Case, Fixed (Repair)
QMF-IOAC	=	Board I/O, Fixed AC (Repair)
QMF-IODC	=	Board I/O, Fixed DC (Repair)
QMF-MB05	=	Mounting Belt, SS (98 ft./29.87 m)
QMF-MB10	=	Mounting Belt, 1 Pair, SS, (63 in./1.6 m)
QMF-MB21	=	Mounting Belt, 1 Pair, SS, (22 in./55.9 m)
QMF-RS232	=	Board, RS232
QMP-BBNC	=	Cable, Blue (BNC, 9 ft./2.74 m)
QMP-BP	=	Battery Pack, Portable (Repair)
QMP-CAB4	=	Cable (4-20 mA Output)
QMP-CABR	=	Cable (Relay)
QMP-CASE	=	Case, Portable (Repair)
QMP-IOB	=	Board I/O, Portable (Repair)
QMP-MK10	=	Mounting Chains, 1 Pair (50 in./1.27 m)
QMP-ML05	=	Lashing Strap, 2 Pair (390 in./9.9 m)
QMP-MT21	=	Textile Belt, 1 Pair (14 in./35.5 m)
QMP-PS	=	Power supply DC (Plug-In)
QMP-RBNC	=	Cable, Red (BNC, 9 ft./2.74 m)
QMP-TL	=	Textile Belt, 1 Pair (63 in./1.6 m)
QMP-USB	=	Cable, USB (36 in./0.91 m)
QMS-KG	=	Grease, Coupling (.75 Oz/22.2 ml)
QMS-MS	=	Spacer Bar, Long
QMS-SB	=	Spacer Bar, Short

* Energy: Includes a pair of Temperature Sensors (QMF-PT100).

QSTAR Ultrasonic Flowmeters

SPECIFICATIONS

Model:	QSTAR PORTABLE	QSTAR FIXED
Operation:	Intuitive via 8 main keys (Soft Keys), plain text display	Intuitive via 8 main keys (Soft Keys), plain text display
Languages:	English, Spanish and French	English, Spanish and French
Units:	Metric / US	Metric / US
Outputs:	2x 4-20 mA, 1x Relay, 1x MicroUSB 1x Pulse	2x 4-20 mA, 1x Pulse, 1x MicroUSB 1x Relay, RS232 (opt.)
Inputs:	2x PT100	2x PT100
Integrated Data Logger:	2 GB	N/A
Data Logged:	Measurement and totalizers	N/A
Data Format:	Can be exported into standard office programs	N/A
Memory Cycle:	Adjustable, 1 second to 24 hours	N/A
Power Supply:	Integrated rechargeable battery and 100-240V AC adapter	85-264VAC, 18-36VDC (opt.)
	Battery Duration: Approximately 5 hours	Power Consumption: 10 W
Protection Class:	IP40	IP65, Ex/ATEX (in preparation)
Housing:	Aluminium, PVC	PVC, wall-mounted
Dimensions:	10.4 x 7.5 x 2.7 in. (26.4 x 19 x 6.8 cm)	10.2 x 9.4 x 4.7 in. (25.9 x 23.9 x 11.9 cm)
Operating Temp:	-4° F to 140° F (-20° C to 60° C)	-4° F to 140° F (-20° C to 60° C)
Transducer Temp:	-40° F to 300° F (-40° C to 149° C)	-40° F to 300° F (-40° C to 149° C)
Weight:	3.3 lbs (1.5 kg)	2.9 lbs (1.3 kg)
Display:	QVGA (320x240), black and white, adjustable backlighting	QVGA (320x240), black and white, adjustable backlighting
Carrying Case:	20 x 16 x 16 (50.8 x 40.6 x 40.6 cm)	N/A

MEASUREMENT

Principle:	Ultrasonic transit time difference with AFC technology
Values Meas:	Flow, flow speed, heat flow
Totalizers:	Heat quantity, volume
Meas. Range:	+/- 98 ft/s (± 30 m/s)
Signal Damping:	0 - 100 sec (adjustable)
Diagnostic Functions:	Acoustic velocity, signal strength, SNR, signal quality, amplitude, energy Oscilloscope function allows graphical display and analysis of signals.

MEASUREMENT ACCURACY

Inner Diameter Ø	Range	Deviation
.39 - .98 in. (1.0 - 2.5 cm)	6.56-98.42 ft/s (2-30 m/s)	2.5% of reading
	0-6.56 ft/s (0-2 m/s)	± 0.16 ft/s (0.05 m/s)
.98-1.97 in. (2.5 - 5.0 cm)	6.56-98.42 ft/s (2-30 m/s)	1.5% of reading
	0-6.56 ft/s (0-2 m/s)	± 0.10 ft/s (0.03 m/s)
1.97-11.81 in. (5.0 - 30.0 cm)	6.56-98.42 ft/s (2-30 m/s)	1% of reading
	0-6.56 ft/s (0-2 m/s)	± 0.07 ft/s (0.02 m/s)
11.81-236.22 in. (30.0 - 600.0 cm)	3.28-98.42 ft/s (1-30 m/s)	1% of reading
	0-3.28 ft/s (0-1 m/s)	± 0.03 ft/s (0.01 m/s)
Repeatability for majority of applications is <0.2%		

MODEL NO.	DESCRIPTION
QME05	Ultrasonic Flowmeter (ENERGY-FIXED, .5 MHz) 8" - 240"
QME10	Ultrasonic Flowmeter (ENERGY-FIXED, 1 MHz) 1.5" - 16"
QME20	Ultrasonic Flowmeter (ENERGY-FIXED, 2 MHz) .5"- 4"
QMF05	Ultrasonic Flowmeter (FIXED, .5 MHz) 8" - 240"
QMF10	Ultrasonic Flowmeter (FIXED, 1 MHz) 1.5" - 16"
QMF20	Ultrasonic Flowmeter (FIXED, 2 MHz) .5" - 4"

MODEL NO.	DESCRIPTION
QMP05	Ultrasonic Flowmeter (PORTABLE, .5 MHz) 8" - 240"
QMP10	Ultrasonic Flowmeter (PORTABLE, 1 MHz) 1.5" - 16"
QMP20	Ultrasonic Flowmeter (PORTABLE, 2 MHz) .5" - 4"
QMF-PT100	Temperature Sensor Kit, FIXED (16 ft. / 4.87 m)
QMP-PT100	Temperature Sensor Kit, PORTABLE (16 ft. / 4.87 m)
QMS-WTG	Pipe Wall Thickness Gauge

G SERIES Precision Meters

G SERIES PRECISION METERS

The High Precision Meter line is the most accurate of the FLOMEC® Turbine Meters and includes a traditional design. These meters come in a variety of sizes and fitting options including BSPP, ISO, NPT and ANSI Flange fittings.

The GSCPS in this section carries the 3A Sanitary Rating.

BUILD-YOUR-OWN G Series Meter

1) Select Your Turbine

Threaded Models

Sanitary Clamp Models

Flange Models

2) Select Your Sensor

Local Pickup Wire Lead

3) Select Your Electronic Choice

For further details and selections see the Electronics Section.

Remote Models	
GA500	F Series
GG500	E Series
GX500	SC500

Local Models	
GA510	F Series
GG510	E Series
GX510	SC510

4) Do You Want It Assembled?

GPI will assemble the components you choose into a single unit, configured to your request.

Contact the factory for details on Custom System Assembly.

METER NUMBER REFERENCE

USE THIS AS A GUIDE – SIZES VARY BY FITTING TYPE.
(Does not apply to model GSCPS - 3A Meters)

See Reference Section for Meter Dimensions.

Product Identifier

G = G Series Precision Turbine Meter

Fitting Type

N = NPT (Male)
I = ISO 7-1 BSPT Taper (Male)
B = BSPP (Male)
F = Flanged
SC = Sanitary Clamp

Shaft / Sleeve Bearing / Thrust Bearing

T– = Tungsten Carbide / Tungsten Carbide / Tungsten Carbide
P– = 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
-075H = 3/4 in. (1.6 - 16 GPM) High Temp - Turbine Body Only◆
-075E = 3/4 in. (2.32 - 23 GPM) Ext-Range - Uses Standard Sensor 2
-75EH = 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
-100H = 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
-150H = 1-1/2 in. (17.7 - 177 GPM) High Temp - Turbine Body Only◆
-200S = 2 in. (33 - 330 GPM) Standard - Uses Standard Sensor 2
-200H = 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

1 = Low Drag Standard Sensor with 12 inch Lead Wires
2 = Standard Sensor with 12 inch Lead Wires
X = 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
-X = No Electronics - Turbine Body Only

G + I + T- + -075S + 2 + -6 ← (Sample Model Number)

* Electronic Choice not available on all models.

Model GNT
NPT Fitting

GNT shown here with Local Display

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	3 inch

For Your Special Application Needs:

Model GNT HT

For High Temperatures

(This model is not available in 3 inch)

Sensor Options:
- 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
Housing Material:		316 Stainless Steel
Meter Sizes Available:		
For GNT: NPT Taper (Male)		1/2" 3/4" 1" 1-1/2" 2" 3"
For GBT: BSPP ⌖ (Male)		1/2" 3/4" 1" 1-1/2" 2" 3"
For GIT: ISO Taper (Male)♦		1/2" 3/4" 1" 1-1/2" 2" 3"
For High Temperature*:		1/2" 3/4" 1" 1-1/2" 2" —
Flow Range:	**1/2" (051)**	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)
	3" (300)	60 - 600 GPM (227.1 - 2271 LPM)
Accuracy (Linearity):		± 0.5%
Repeatability:		± 0.1%
Pressure Rating:		1/2" to 2" = 5,000 PSI / 340 BAR
		3" = 2,500 PSI / 170 BAR
Operating Temperature Range:		
For Tungsten Carbide:		-100° F to +225° F (-74° C to +107° C)
For High Temperature:		-450° F to +800° F (-268° C to +426° C)
Typical K-Factor:	**1/2" (051)**	10,000 PPG / 2642 PPL
PPG (PPL)	**3/4" (075)**	3,750 PPG / 991 PPL
	3/4" (075E)	2,608 PPG / 689 PPL
	1" (100)	896 PPG / 237 PPL
	1-1/2" (150)	340 PPG / 90 PPL
	2" (200)	181 PPG / 48 PPL
	3" (300)	50 PPG / 13 PPL
Wetted Materials:		
Housing:		316 Stainless Steel
Sleeve Bearings:		Tungsten Carbide
Thrust Bearing:		Tungsten Carbide
Shaft:		Tungsten Carbide
Rotor:		CD4MCu Stainless Steel
Rotor Supports:		316 Stainless Steel
Retaining Rings:		300 Series Stainless Steel
Recommended Strainer Size:		
	1/2"	40 mesh
	3/4"	40 mesh
	1"	40 mesh
	1-1/2"	18 mesh
	2"	14 mesh
	3"	14 mesh
Frequency Output:	**1/2" (051)**	125 - 1000 Hz
	3/4" (075)	100 - 1000 Hz
	3/4" (075E)	100 - 1000 Hz
	1" (100)	100 - 1000 Hz
	1-1/2" (150)	100 - 1000 Hz
	2" (200)	100 - 1000 Hz
	3" (300)	50 - 500 Hz
Calibration Report		Comes standard with G Series meters. N.I.S.T. – Certification available.

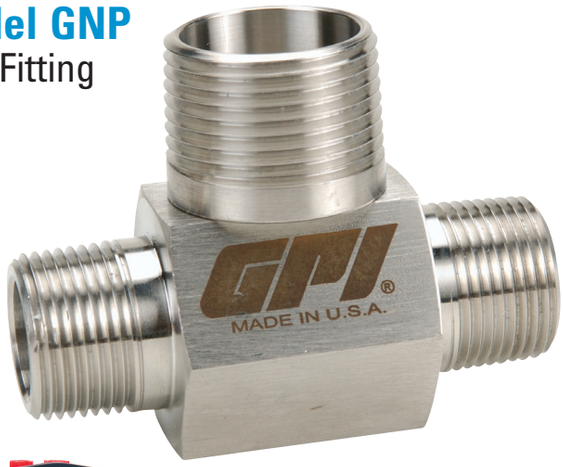
APPROVALS

CE

* Requires High Temp Pickup.
⌖ ISO 228-1 designation is G.
♦ ISO 7-1 BSPT

GBP, GIP & GNP Precision Meters

Model GNP
NPT Fitting



GNP shown here with Local Display

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

ACCURACY: ± 0.5%

Select Your Meter Size:

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

Sensor Options:
- 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				
Housing Material:		316 Stainless Steel				
Meter Sizes Available:						
For GNP: NPT (Male)		1/2"	3/4"	1"	1-1/2"	2"
For GBP: BSPP✢ (Male)		1/2"	3/4"	1"	1-1/2"	2"
For GIP: ISO Taper (Male)♦		1/2"	3/4"	1"	1-1/2"	2"
Flow Range:	**1/2" (050)***	0.6 - 6.0 GPM	(2.2 - 22 LPM)			
	1/2" (051)	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)	896 PPG / 237 PPL				
	1-1/2" (150)	340 PPG / 90 PPL				
	2" (200)	181 PPG / 48 PPL				
Wetted Materials:						
Housing:		316 Stainless Steel				
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 Strainer Size:						
	1/2"	40 mesh				
	3/4"	40 mesh				
	1"	40 mesh				
	1-1/2"	18 mesh				
	2"	14 mesh				
Frequency Output:	**1/2" (051)***	125 - 1000 Hz				
	3/4" (075)	100 - 1000 Hz				
	3/4" (075E)	100 - 1000 Hz				
	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.				

APPROVALS

CE

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

Model GFT

150# RF ANSI Flange Fitting

GFT shown here with GX510

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

ACCURACY: ± 0.5%

Select Your Meter Size:

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

For Your Special Application Needs:

Model GFP
For Chemicals

Model GFT HT
For High Temperatures

(These models not available in 3 inch)

Sensor:

- Standard Pickup (3/4 to 3 inch 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				
Housing Material:		316 Stainless Steel				
Meter Sizes Available:						
For GFT:		3/4"	1"	1-1/2"	2"	3"
For GFP:		3/4"	1"	1-1/2"	2"	—
For High Temperature:		3/4"	1"	1-1/2"	2"	—
Flow Range:	**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)			
	3" (300)	60 - 600 GPM	(227.1 - 2271 LPM)			
Accuracy (Linearity):		± 0.5%				
Repeatability:		± 0.1%				
Pressure Rating:		Flange Rule				
Operating Temperature Range:						
For SS/PTFE:		-450° F to +800° F (-268° C to +426° C)				
For Tungsten Carbide:		-100° F to +225° F (-74° C to +107° C)				
Typical K-Factor:	**3/4" (075)**	3,750 PPG / 991 PPL				
PPG (PPL)	**3/4" (075E)**	2,608 PPG / 689 PPL				
	1" (100)	896 PPG / 237 PPL				
	1-1/2" (150)	340 PPG / 90 PPL				
	2" (200)	181 PPG / 48 PPL				
	3" (300)	50 PPG / 13 PPL				
Wetted Materials (GFT):						
Housing:		316 Stainless Steel				
Sleeve Bearings:		Tungsten Carbide				
Thrust Bearing:		Tungsten Carbide				
Shaft:		Tungsten Carbide				
Rotor:		CD4MCu Stainless Steel				
Rotor Supports:		316 Stainless Steel				
Retaining Rings:		300 Series Stainless Steel				
Wetted Materials (GFP):						
Housing:		316 Stainless Steel				
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 Strainer Size:						
	3/4"	40 mesh				
	1"	40 mesh				
	1-1/2"	18 mesh				
	2"	14 mesh				
	3"	14 mesh				
Frequency Output:	**3/4" (075)**	100 - 1000 Hz				
	3/4" (075E)	100 - 1000 Hz				
	1" (100)	100 - 1000 Hz				
	1-1/2" (150)	100 - 1000 Hz				
	2" (200)	100 - 1000 Hz				
	3" (300)	50 - 500 Hz				
Calibration Report		Comes standard with G Series meters.				
		N.I.S.T. – Certification available.				

APPROVALS

CE

* Requires High Temp Pickup.

SANITARY CLAMP Precision Meters

Model GSCPS
Standard Sanitary Clamp

Model GSCPS
Low Profile Sanitary Clamp

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

ACCURACY: ± 0.5%

GSCPS Stainless Steel Precision Turbine Meter

Select Your Meter Size:

1 inch Meter with 1-1/2 inch Fitting
1-1/2 inch Meter with 1-1/2 inch Fitting
2 inch Meter with 2 inch Fitting

SPECIFICATIONS

Design Type:		Turbine
Housing Material:		316 Stainless Steel
Meter Sizes Available (ID):		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 (25.2 - 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:		Limited by fitting size, clamp size & temp.
Operating Temperature Range:		
For GSCPS:		-100° F to +225° F (-74° C to +107° C)
SIP (up to 1 hour):		+285° F (+140° C)
Typical K-Factor:	**1" (100)**	896 PPG / 237 PPL
	1-1/2" (150)	340 PPG / 90 PPL
	2" (200)	181 PPG / 48 PPL
Wetted Materials (SIP):		
Housing:		316 Stainless Steel
Bearings & Bushings:		PEEK
Shaft:		316 Stainless Steel
Rotor:		CD4MCu Stainless Steel (Nickel Plated)
Rotor Supports:		316 Stainless Steel
Retaining Rings:		300 Series Stainless Steel
Recommended Strainer Size:		
	1"	40 mesh
	1-1/2"	18 mesh
	2"	14 mesh
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.

APPROVALS

GSCPS & "L" Option Meters carry a

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

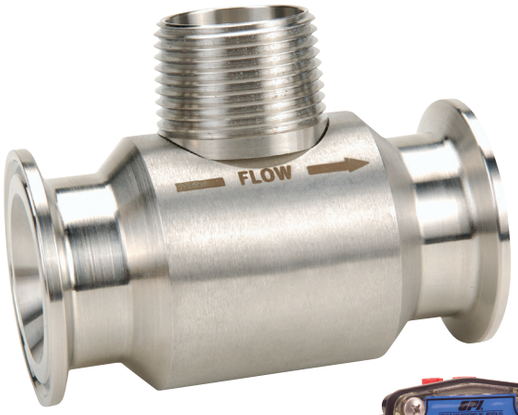
CIP CE SIP

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.

Use this meter in pre-process applications where high accuracy is required without 3-A Approval.

Model GSCP
Tri-Clover® Clamp



GSCP shown here with Local Display

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

ACCURACY: ± 0.5%

Select Your Meter Size:

1/2 inch Meter with 3/4 or 1 inch Fitting
3/4 inch Meter with 1-1/2 inch Fitting
1 inch Meter with 1-1/2 inch Fitting
1-1/2 inch Meter with 1-1/2 inch Fitting
2 inch Meter with 2 inch Fitting

Sensor Options:
- Low Drag Pickup (1/2 in. turbines)
- Standard Pickup (3/4 to 2 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
Housing Material:		316 Stainless Steel
Meter Sizes Available (ID):		1/2" 3/4" 1" 1-1/2" 2"
Meter ID:	**1/2"**	3/4" Fitting
	1/2"	1" Fitting
	3/4"	1-1/2" Fitting
	1"	1-1/2" Fitting
	1-1/2"	1-1/2" Fitting
	2"	2" Fitting
Flow Range:	**1/2" (050)†**	0.6 - 6 GPM (2.2 - 22 LPM)
	1/2" (051)	0.8 - 6 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:		Limited by fitting size, clamp size & temp.
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)	896 PPG / 237 PPL
	1-1/2" (150)	340 PPG / 90 PPL
	2" (200)	181 PPG / 48 PPL
Wetted Materials:		
Housing:		316 Stainless Steel
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 Strainer Size:		
	1/2"	40 mesh
	3/4"	40 mesh
	1"	40 mesh
	1-1/2"	18 mesh
	2"	14 mesh
Frequency Output:	**1/2" (050)**	100 - 1000 Hz
	1/2" (051)	125 - 1000 Hz
	3/4" (075)	100 - 1000 Hz
	3/4" (075E)	100 - 1000 Hz
	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.

† GSCP-050 requires RF Pickup.

G Series Precision **ACCESSORIES**

Magnetic Pickups

When choosing a magnetic pickup, the turbine meter and electronics are generally already known. Electronics can be either Local or Remote. Remote electronics include FLOMEC® Remote Displays or output to customer supplied equipment. Follow these 3 steps when choosing a magnetic pickup then see the Specification Table for further details.

1

Select your size:
1/2 inch or
3/4 to 3 inch

2

Choose: Local or Remote/Output
Local uses a wire lead pickup.
Remote/Output requires a connector.

3

What's your signal type:
Sine Wave or Square Wave
Sine Wave - has no sensor power, can be used with battery powered displays.
Square Wave - sensor power is required.

1/2 INCH METER SIZES								Magnetic Pickups work with...		
Description	**Part Number**	**Sensor Power**	**Temperature Range**	**Cable Type**	**Connector Required**	**Cable Length**	**Thread Size**	**Local**	**Remote**	**Battery Pwr Display**
Wire Lead Low Drag	81006001	None	-100° F to +250° F (-73° C to +121° C)	None	None	12 in. (30.5 cm)	5/8" - 18	X		Yes
Low Drag	81006000	None	-100° F to +250° F (-73° C to +121° C)	S	80001200	N/A	5/8" - 18		X	Yes
High Temp., Low Drag (10 ft. cable)	81007001	None	-450° F to +800° F (-268° C to +426° C)	None	None	10 ft. (24.4 cm)	5/8" - 18		X	Yes
*RF (required for GNP-050, GTP-050 & GSCP-050)	81005002	7-30 VDC	-40° F to +248° F (-29° C to +120° C)	D	80001202	N/A	5/8" - 18		X	No
3/4 TO 3 INCH METER SIZES										
Wire Lead Standard	81003000	None	-100° F to +250° F (-73° C to +121° C)	None	None	12 in. (30.5 cm)	5/8" - 18	X		Yes
Standard	81001000	None	-100° F to +250° F (-73° C to +121° C)	S	80001200	N/A	5/8" - 18		X	Yes
Herm / High Temperature	81002000	None	-450° F to +258° F (-268° C to +125° C)	S	80001200	N/A	5/8" - 18		X	Yes
High Temperature, Standard	81007000	None	-450° F to +800° F (-268° C to +426° C)	None	None	3 ft. (0.91 m)	5/8" - 18		X	Yes
▲*Digital (Di-Mag)	81004000	5-32 VDC	-40° F to +248° F (-29° C to +120°C)	D	80001202	N/A	5/8" - 18		X	No

▲ Pulls up to 10 VDC (Max) * Externally powered pickups for pulse output only.

Pickup Enclosures

Pickup Enclosures are optional on G Serie Meters. Choose from four pickup enclosures. Models N4A and N4S are weather-proof enclosures. For explosion-proof enclosures, choose N7A for the enclosure without terminal strip or the N7AT with terminal strip.

ENCLOSURES – PART NUMBERS	
Description	**Part Number**
N4AWP - Weatherproof magnetic pickup steel enclosure	80001101
N4SWP - Weatherproof magnetic pickup 316 S.S. enclosure	80001105
N7AXP - Explosion-proof pickup enclosure (NEMA 7D)	80001100
N7ATXP - Explosion-proof pickup enclosure w/terminal strip (NEMA 7D)	80001102
Optional Spacer	42825524

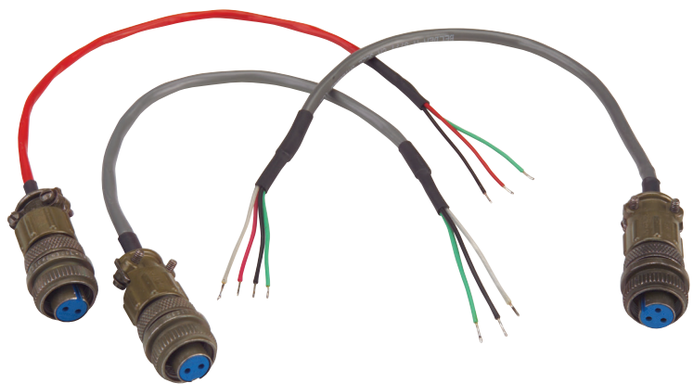
Connectors

Connectors are included with FLOMEC® cable assemblies. If you need replacement connectors, choose from the following:

CONNECTORS – PART NUMBERS

Description	Part Number
Standard mating connector (2 pin) used on Type S and T cable assemblies	80001200
Water resistant connector (2 pin) used on Type H cable assembly	80001201
Di-Mag connector (3 pin) used on Type D cable assembly	80001202

Cable Assemblies



FLOMEC® Cable Assemblies include the connector.

CABLE ASSEMBLY – PART NUMBERS

Type "S" Standard Cable (2 Conductor)		Type "H" Water Resistant (2 Conductor)	
Cable Length	**Part No.**	**Cable Length**	**Part No.**
8 in. (20.7 cm)	83001001	8 in. (20.7 cm)	83003001
5 ft. (1.52 m)	83001005	5 ft. (1.52 m)	83003005
10 ft. (3.04 m)	83001010	10 ft. (3.04 m)	83003010
15 ft. (4.57 m)	83001015	15 ft. (4.57 m)	83003015
20 ft. (6.09 m)	83001020	20 ft. (6.09 m)	83003020
25 ft. (7.62 m)	83001025	25 ft. (7.62 m)	83003025
30 ft. (9.35 m)	83001030	30 ft. (9.35 m)	83003030
40 ft. (12.19 m)	83001040	40 ft. (12.19 m)	83003040
50 ft. (15.24 m)	83001050	50 ft. (15.24 m)	83003050
75 ft. (22.86 m)	83001075	75 ft. (22.86 m)	83003075
100 ft. (30.48 m)	83001100		
125 ft. (38.1 m)	83001125		
Type "D" Di-Mag or RF (3 Conductor)		**Type "T" High Temperature (2 Conductor)**	
Cable Length	**Part No.**	**Cable Length**	**Part No.**
8 in. (20.7 cm)	83002001	8 in. (20.7 cm)	83004001
5 ft. (1.52 m)	83002005	5 ft. (1.52 m)	83004005
10 ft. (3.04 m)	83002010	10 ft. (3.04 m)	83004010
15 ft. (4.57 m)	83002015	15 ft. (4.57 m)	83004015
20 ft. (6.09 m)	83002020	20 ft. (6.09 m)	83004020
25 ft. (7.62 m)	83002025	25 ft. (7.62 m)	83004025
30 ft. (9.35 m)	83002030	30 ft. (9.35 m)	83004030
40 ft. (12.19 m)	83002040	40 ft. (12.19 m)	83004040
50 ft. (15.24 m)	83002050	50 ft. (15.24 m)	83004050
75 ft. (22.86 m)	83002075	75 ft. (22.86 m)	83004075

G2 SERIES Industrial Grade Meters

G2 SERIES INDUSTRIAL GRADE METERS

The unique modular approach of the Industrial Grade Meter line allows you to design a meter to match your specific application. Turbine choice depends on flowrate, line size, pressure rating, fitting type, chemical compatibility and temperature range. When choosing a G2 Series Meter, select from our wide variety of materials and sizes. These meters offer high accuracy at a lower cost, are compact and include a self-contained design. G2 Series Meters are field serviceable.

1) Select Your Turbine Material and Size

Turbine choice depends on flowrate, line size, pressure rating, fitting type, chemical compatibility and temperature range.

Stainless Steel

"Look for the blue label!"

Aluminum
(Shown with 09 Computer)

"Look for the blue label!"

Brass
(Shown with 09 Computer)

PVDF

2) Need A Computer?

"Look for the blue label!"

09 Computer

XX No Computer

Or Choose an Electronics
(For further details and selections see the Electronics Section.)

3) Add a Module?

Standard Remote Kit

FM Approved Remote Kit

Conditioned Signal Output Module

FM Approved Sensor Kit

4-20 mA Module

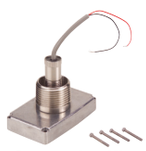
Pulse Access Module

External Power Module
(Pulse Access Module Required)

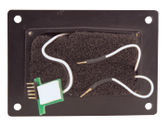
4) Do You Require Any Accessories?

Conduit Adapter Kit

90° Display Adapter Kit



510 Conversion Kit



Pulse Access Dust Cover

Electronics Programmer

METER NUMBER REFERENCE

Product Identifier

G2 = Industrial Grade Meter

Turbine Material & Size

Metal Meters:

S05 = Stainless Steel – 1/2 in.
S07 = Stainless Steel – 3/4 in.
S10 = Stainless Steel – 1 in.
S15 = Stainless Steel – 1-1/2 in.
S20 = Stainless Steel – 2 in.
H05 = Stainless Steel High Pressure – 1/2 in.
H07 = Stainless Steel High Pressure – 3/4 in.
H10 = Stainless Steel High Pressure – 1 in.
H15 = Stainless Steel High Pressure – 1-1/2 in.
H20 = Stainless Steel High Pressure – 2 in.
A05 = Aluminum – 1/2 in.
A07 = Aluminum – 3/4 in.
A10 = Aluminum – 1 in.
A15 = Aluminum – 1-1/2 in.
A20 = Aluminum – 2 in.
B05 = Brass – 1/2 in.
B07 = Brass – 3/4 in.
B10 = Brass – 1 in.
B15 = Brass – 1-1/2 in.
B20 = Brass – 2 in.

Plastic Meters:

P05 = PVDF – 1/2 in.
P10 = PVDF – 1 in.

Fitting Type

See Reference section for meter dimensions.

F = 150# ANSI Flange - available on S10, S15 and S20 only
I = ISO (Female) BSPT*
N = NPT (Female)
T = Tri-Clover® Fitting - available on S05 - S20 only
X = Electronics Only - for metal meters
Z = Electronics Only - for plastic meters

Electronic Choice

Turbine with Local Display

09 = 2 Button Computer, Field Configurable (2 Totals and Rate of Flow)
19 = Vertical Mount 2-Button Computer, Field Configurable (2 Totals and Rate of Flow)

Pulse Output (Remote)

41 = Remote Pulse Out Transmitter & Sine Wave Pickup (Standard Remote Sensor Option)
43 = Remote Pulse Out Transmitter & Turbine Mounted Computer (Pulse Out Sensor Option)

GG500 – Display with Pulse Output (Remote)

51 = Sine Wave Pickup (Standard Remote Sensor Option)
52 = Open Collector Pickup (Conditioned Signal Sensor Option)
53 = Turbine Mounted Computer (Pulse Access Sensor Option)

GX500 – Display with 4-20 mA Output (Remote)

61 = Sine Wave Pickup (Standard Remote Sensor Option)
62 = Open Collector Pickup (Conditioned Signal Sensor Option)
63 = Turbine Mounted Computer (Pulse Access Sensor Option)

GA500 – 4-20 mA Output (Remote)

71 = Sine Wave Pickup (Standard Remote Sensor Option)
72 = Open Collector Pickup (Conditioned Signal Sensor Option)
73 = Turbine Mounted Computer (Pulse Access Sensor Option)

No Electronics – Turbine Only

XX = No Electronics – Turbine Only

Calibration

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

Packaging

A = Use for Turbine Only or Turbine w/Display (Sizes 05-10)
B = Use for Turbine Only or Turbine w/Display (Sizes 15-20)
C = Use for Turbine with Remote Transmitter With or Without Turbine Mounted Display (Sizes 05-20)
D = Use for 150# ANSI Flange Turbine Only (Size 10)
E = Use for 150# ANSI Flange Turbine Only (Sizes 15-20) Use for 150# ANSI Flange Turbine with Remote Transmitter (Sizes 10, 15 or 20)

G2 + S07 + N + 09 + GM + A ← (Sample Model Number)

* ISO 7 designation is RC

"Look for the blue label!"

The FLOMEC® Stainless Steel Meter line has a proven track record in the industrial market. FLOMEC Stainless Steel Meters are rugged and dependable. Use stainless steel meters for most chemicals: Ammonium, Plating Solutions and Fuel products.

* ISO 7 designation is RC

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

Select Your Meter Size:

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

Features and Benefits:

- ✓ Meter is designed for thin fluids < 100 cp.
- ✓ Modular design allows for use with Output Modules, Sensors and Remote Transmitters.
- ✓ 2 Totals (Batch = Resettable, Cumulative = Non-Resettable); Rate of Flow. Factory calibrated in gallons and litres. Field calibratable. Allows user calibration. Includes non-volatile totals.
- ✓ High accuracy meter.
- ✓ Internal parts are simple to replace for easy maintenance.
- ✓ Lithium battery life: 5 years.
- ✓ Accessories easily upgrade meter.

STAINLESS STEEL – SPECIFICATIONS

Fitting Type:		NPT or ISO (Female) BSPT*
Housing Material:		316 Stainless Steel
Meter Sizes Available:		1/2" 3/4" 1" 1-1/2" 2"
Flow Range:	**1/2" (S05)**	1 - 10 GPM (3.8 - 37.9 LPM)
	3/4" (S07)	2 - 20 GPM (7.6 - 75.7 LPM)
	1" (S10)	5 - 50 GPM (18.9 - 190 LPM)
	1-1/2" (S15)	10 - 100 GPM (38.0 - 380 LPM)
	2" (S20)	20 - 200 GPM (76 - 760 LPM)
Accuracy (% of Reading):		**Turbine Only** **Turbine w/Computer**
	1/2" (S05)	± 2.0% ± 1.5%
	3/4" (S07)	± 1.5% ± 1.0%
	1" (S10)	± 1.5% ± 1.0%
	1-1/2" (S15)	± 1.0% ± 0.75%
	2" (S20)	± 1.0% ± 0.75%
Repeatability:		± 0.1%
Pressure Rating:		1,500 PSI / 102 BAR
Operating Temperature Range:		-40° F to +250° F (-40° C to +121° C)
with Computer:		0° F to +140° F (-18° C to +60° C)
Typical K-Factor:	**1/2" (S05)**	2,500 PPG / 660 PPL
	3/4" (S07)	1,100 PPG / 291 PPL
	1" (S10)	565 PPG / 149 PPL
	1-1/2" (S15)	215 PPG / 57 PPL
	2" (S20)	100 PPG / 26 PPL
Wetted Materials:	**Housing:**	316 Stainless Steel
	Bearings:	96% Alumina Ceramic
	Shaft:	Tungsten Carbide
	Rotor:	PVDF
	Rings:	316 Stainless Steel
Frequency Range:	**1/2" (S05)**	42 - 420 Hz @ 1 - 10 GPM
	3/4" (S07)	37 - 370 Hz @ 2 - 20 GPM
	1" (S10)	47 - 470 Hz @ 5 - 50 GPM
	1-1/2" (S15)	36 - 360 Hz @ 10 - 100 GPM
	2" (S20)	33 - 330 Hz @ 20 - 200 GPM
Recommended Strainer Size:		
1/2", 3/4"and 1"		60 mesh (250 micron)
1-1/2" and 2"		30 mesh (595 micron)
Maximum Flow:	**1/2" (S05)**	15 GPM (56.8 LPM)
	3/4" (S07)	30 GPM (113.6 LPM)
	1" (S10)	75 GPM (284 LPM)
	1-1/2" (S15)	150 GPM (568 LPM)
	2" (S20)	300 GPM (1,136 LPM)
Wrench Flat Size:	**1/2" (S05)**	1-1/16 inch (27 mm)
	3/4" (S07)	1-5/16 inch (33 mm)
	1" (S10)	1-5/8 inch (41 mm)
	1-1/2" (S15)	2-3/8 inch (60 mm)
	2" (S20)	3 inch (75 mm)
Shipping Weight:	**1/2" (S05)**	2.3 lbs./1.0 kg - Turbine Only: 2.1 lbs./.95 kg
	3/4" (S07)	2.5 lbs./1.1 kg - Turbine Only: 2.3 lbs./1.0 kg
	1" (S10)	3.0 lbs./1.3 kg - Turbine Only: 2.8 lbs./1.2 kg
	1-1/2" (S15)	4.6 lbs./2.1 kg - Turbine Only: 4.4 lbs./2.0 kg
	2" (S20)	6.8 lbs./3.0 kg - Turbine Only: 6.6 lbs./3.0 kg
Calibration Report		Comes standard with G2 Series meters.
		N.I.S.T. – Certification available.

ELECTRONIC CHOICES

Local Display, Remote Display & Remote Transmitter Options:	See Electronics Section.

APPROVALS

FM APPROVED · FM c us APPROVED · CE · NEMA 4 · ATEX Ex · **IP65** · **IECEx**

G2 Industrial Meters **HIGH PRESSURE**

"Look for the blue label!"

This is the turbine meter of choice for high pressure applications like spray washers and hydraulic systems. PSIG for the FLOMEC® High Pressure Meter is 3,000 compared to 1,500 for the standard stainless steel meter. This proven meter can perform in all kinds of high pressure applications.

* ISO 7 designation is RC

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

Select Your Meter Size:

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

Features and Benefits:

- ✓ Meter is designed for thin fluids < 100 cp.
- ✓ Excellent chemical compatibility.
- ✓ Modular design allows for use with Output Modules, Sensors and Remote Transmitters.
- ✓ 2 Totals (Batch = Resettable, Cumulative = Non-Resettable); Rate of Flow. Factory calibrated in gallons and litres. Field calibratable. Allows user calibration. Includes non-volatile totals.
- ✓ Internal parts are simple to replace for easy maintenance.
- ✓ Lithium battery life: 5 years.

HIGH PRESSURE – SPECIFICATIONS

Fitting Type:		NPT or ISO (Female) BSPT*	
Housing Material:		316 Stainless Steel	
Meter Sizes Available:		1/2" 3/4" 1" 1-1/2" 2"	
Flow Range:	**1/2" (H05)**	1 - 10 GPM	(3.8 - 37.9 LPM)
	3/4" (H07)	2 - 20 GPM	(7.6 - 75.7 LPM)
	1" (H10)	5 - 50 GPM	(18.9 - 190 LPM)
	1-1/2" (H15)	10 - 100 GPM	(38.0 - 380 LPM)
	2" (H20)	20 - 200 GPM	(76 - 760 LPM)
Accuracy (% of Reading):		**Turbine Only**	**Turbine w/Computer**
	1/2" (H05)	± 2.0%	± 1.5%
	3/4" (H07)	± 1.5%	± 1.0%
	1" (H10)	± 1.5%	± 1.0%
	1-1/2" (H15)	± 1.0%	± 0.75%
	2" (H20)	± 1.0%	± 0.75%
Repeatability:		± 0.1%	
Pressure Rating:		3,000 PSI / 207 BAR	
Operating Temperature Range:		-40° F to +250° F (-40° C to +121° C)	
with Computer:		0° F to +140° F (-18° C to +60° C)	
Typical K-Factor:	**1/2" (H05)**	2,500 PPG / 660 PPL	
	3/4" (H07)	1,100 PPG / 291 PPL	
	1" (H10)	565 PPG / 149 PPL	
	1-1/2" (H15)	215 PPG / 57 PPL	
	2" (H20)	100 PPG / 26 PPL	
Wetted Materials:	**Housing:**	316 Stainless Steel	
	Bearings:	96% Alumina Ceramic	
	Shaft:	Tungsten Carbide	
	Rotor:	PVDF	
	Rings:	316 Stainless Steel	
Frequency Range:	**1/2" (H05)**	42 - 420 Hz @ 1 - 10 GPM	
	3/4" (H07)	37 - 370 Hz @ 2 - 20 GPM	
	1" (H10)	47 - 470 Hz @ 5 - 50 GPM	
	1-1/2" (H15)	36 - 360 Hz @ 10 - 100 GPM	
	2" (H20)	33 - 330 Hz @ 20 - 200 GPM	
Recommended Strainer Size:			
	1/2", 3/4" and 1"	60 mesh (250 micron)	
	1-1/2" and 2"	30 mesh (595 micron)	
Maximum Flow:	**1/2" (H05)**	15 GPM (56.8 LPM)	
	3/4" (H07)	30 GPM (113.6 LPM)	
	1" (H10)	75 GPM (284 LPM)	
	1-1/2" (H15)	150 GPM (568 LPM)	
	2" (H20)	300 GPM (1,136 LPM)	
Wrench Flat Size:	**1/2" (H05)**	1-1/16 inch (27 mm)	
	3/4" (H07)	1-5/16 inch (33 mm)	
	1" (H10)	1-5/8 inch (41 mm)	
	1-1/2" (H15)	2-3/8 inch (60 mm)	
	2" (H20)	3 inch (75 mm)	
Shipping Weight:	**1/2" (H05)**	2.3 lbs./1.0 kg - Turbine Only: 2.1 lbs./.95 kg	
	3/4" (H07)	2.4 lbs./1.1 kg - Turbine Only: 2.2 lbs./1.0 kg	
	1" (H10)	3.0 lbs./1.3 kg - Turbine Only: 2.8 lbs./1.2 kg	
	1-1/2" (H15)	4.6 lbs./2.1 kg - Turbine Only: 4.4 lbs./2.0 kg	
	2" (H20)	6.8 lbs./3.0 kg - Turbine Only: 6.6 lbs./3.0 kg	
Calibration Report		Comes standard with G2 Series meters. N.I.S.T. – Certification available.	

ELECTRONIC CHOICES

Local Display, Remote Display & Remote Transmitter Options:	See Electronics Section.

APPROVALS

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

Select stainless steel meters with 150# ANSI Flanges when you need a meter that installs in-line quickly. Flange Meters are easily installed and removed with eight bolts. Combine with FLOMEC® Computer Electronics for a complete, accurate, metering system.

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

Select Your Meter Size:

1 inch 1-1/2 inch 2 inch

Features and Benefits:

- ✓ Stainless steel meters have excellent chemical compatibility.
- ✓ Modular design allows for use with Output Modules, Sensors and Remote Transmitters.
- ✓ 2 Totals (Batch = Resettable, Cumulative = Non-Resettable); Rate of Flow. Factory calibrated in gallons and litres. Field calibratable. Allows user calibration. Includes non-volatile totals.
- ✓ Precision accuracy meter.
- ✓ Internal parts are simple to replace for easy maintenance.
- ✓ Lithium battery life: 5 years.
- ✓ Accessories easily upgrade meter.

ANSI FLANGE – SPECIFICATIONS

Fitting Type:		150# ANSI Flange	
Housing Material:		316 Stainless Steel	
Meter Sizes Available:		1" 1-1/2" 2"	
Flow Range:	**1" (S10F)**	5 - 50 GPM	(18.9 - 190 LPM)
	1-1/2" (S15F)	10 - 100 GPM	(38.0 - 380 LPM)
	2" (S20F)	20 - 200 GPM	(76 - 760 LPM)
Accuracy (% of Reading):		**Turbine Only**	**Turbine w/Computer**
	1" (S10F)	± 1.5%	± 1.0%
	1-1/2" (S15F)	± 1.0%	± 0.75%
	2" (S20F)	± 1.0%	± 0.75%
Repeatability:		± 0.1%	
Pressure Rating:		Flange Rule	
Operating Temperature Range:		-40° F to +250° F (-40° C to +121° C)	
with Computer:		0° F to +140° F (-18° C to +60° C)	
Typical K-Factor:	**1" (S10F)**	565 PPG / 149 PPL	
	1-1/2" (S15F)	215 PPG / 57 PPL	
	2" (S20F)	100 PPG / 26 PPL	
Wetted Materials:	**Housing:**	316 Stainless Steel	
	Bearings:	96% Alumina Ceramic	
	Shaft:	Tungsten Carbide	
	Rotor:	PVDF	
	Rings:	316 Stainless Steel	
Frequency Range:	**1" (S10F)**	47 - 470 Hz @ 5 - 50 GPM	
	1-1/2" (S15F)	36 - 360 Hz @ 10 - 100 GPM	
	2" (S20F)	33 - 330 Hz @ 20 - 200 GPM	
Recommended Strainer Size:			
	1" (S10F)	60 mesh (250 micron)	
	1-1/2" (S15F)	30 mesh (595 micron)	
	2" (S20F)	30 mesh (595 micron)	
Maximum Flow:	**1" (S10F)**	75 GPM (284 LPM)	
	1-1/2" (S15F)	150 GPM (568 LPM)	
	2" (S20F)	300 GPM (1,136 LPM)	
Shipping Weight:	**1" (S10F)**	7.2 lbs./3.3 kg - Turbine Only: 7.0 lbs./3.2 kg	
	1-1/2" (S15F)	11.3 lbs./5.1 kg - Turbine Only: 11.1 lbs./5.0 kg	
	2" (S20F)	18.6 lbs./8.4 kg - Turbine Only: 18.4 lbs./8.3 kg	
Calibration Report		Comes standard with G2 Series meters.	
		N.I.S.T. – Certification available.	

ELECTRONIC CHOICES

Local Display, Remote Display & Remote Transmitter Options:	See Electronics Section.

APPROVALS

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

G2 Industrial Meters **TRI-CLOVER®**

"Look for the blue label!"

The FLOMEC® Stainless Steel Meters with Tri-Clover® fittings can be used with food and beverage industries in preprocess applications. Built of stainless steel construction, these meters come in five sizes to fit most every application.

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

TRI-CLOVER® – SPECIFICATIONS

Fitting Type:		Tri-Clover®
Housing Material:		316 Stainless Steel
Meter Sizes Available:		1/2" 3/4" 1" 1-1/2" 2"
Tri-Clover® Fittings Available:		3/4" 1" 1-1/2" 2" 2-1/2"
Flow Range:	**1/2" (S05T)**	1 - 10 GPM (3.8 - 37.9 LPM)
	3/4" (S07T)	2 - 20 GPM (7.6 - 75.7 LPM)
	1" (S10T)	5 - 50 GPM (18.9 - 190 LPM)
	1-1/2" (S15T)	10 - 100 GPM (38.0 - 380 LPM)
	2" (S20T)	20 - 200 GPM (76 - 760 LPM)
Accuracy (% of Reading):		**Turbine Only** / **Turbine w/Computer**
	1/2" (S05T)	± 2.0% / ± 1.5%
	3/4" (S07T)	± 1.5% / ± 1.0%
	1" (S10T)	± 1.5% / ± 1.0%
	1-1/2" (S15T)	± 1.0% / ± 0.75%
	2" (S20T)	± 1.0% / ± 0.75%
Repeatability:		± 0.1%
Pressure Rating:		Limited by fitting size, clamp size & temp.
Operating Temperature Range:		-40° F to +250° F (-40° C to +121° C)
with Computer:		0° F to +140° F (-18° C to +60° C)
Typical K-Factor:	**1/2" (S05T)**	2,500 PPG / 660 PPL
	3/4" (S07T)	1,100 PPG / 291 PPL
	1" (S10T)	565 PPG / 149 PPL
	1-1/2" (S15T)	215 PPG / 57 PPL
	2" (S20T)	100 PPG / 26 PPL
Wetted Materials:	**Housing:**	316 Stainless Steel
	Bearings:	96% Alumina Ceramic
	Shaft:	Tungsten Carbide
	Rotor:	PVDF
	Rings:	316 Stainless Steel
Frequency Range:	**1/2" (S05T)**	42 - 420 Hz @ 1 - 10 GPM
	3/4" (S07)	37 - 370 Hz @ 2 - 20 GPM
	1" (S10T)	47 - 470 Hz @ 5 - 50 GPM
	1-1/2" (S15T)	36 - 360 Hz @ 10 - 100 GPM
	2" (S20T)	33 - 330 Hz @ 20 - 200 GPM
Recommended Strainer Size:		
	1/2" (S05T)	60 mesh (250 micron)
	3/4" (S07T)	60 mesh (250 micron)
	1" (S10T)	60 mesh (250 micron)
	1-1/2" (S15T)	30 mesh (595 micron)
	2" (S20T)	30 mesh (595 micron)
Maximum Flow:	**1/2" (S05T)**	15 GPM (56.8 LPM)
	3/4" (S07T)	30 GPM (113.6 LPM)
	1" (S10T)	75 GPM (284 LPM)
	1-1/2" (S15T)	150 GPM (568 LPM)
	2" (S20T)	300 GPM (1,136 LPM)
Shipping Weight:	**1/2" (S05T)**	2.5 lbs./1.0 kg - Turbine Only: 2.3 lbs./1.0 kg
	3/4" (S07T)	2.9 lbs./1.3 kg - Turbine Only: 2.7 lbs./1.2 kg
	1" (S10T)	3.2 lbs./1.4 kg - Turbine Only: 3.0 lbs./1.3 kg
	1-1/2" (S15T)	4.7 lbs./2.1 kg - Turbine Only: 4.5 lbs./2.0 kg
	2" (S20T)	6.5 lbs./2.9 kg - Turbine Only: 6.3 lbs./2.8 kg
Calibration Report		Comes standard with G2 Series meters.
		N.I.S.T. – Certification available.

ELECTRONIC CHOICES

Local Display, Remote Display & Remote Transmitter Options:	See Electronics Section.

APPROVALS

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

Select Your Meter Size:

1/2 inch Meter with 3/4 inch Fitting
3/4 inch Meter with 1 inch Fitting
1 inch Meter with 1-1/2 inch Fitting
1-1/2 inch Meter with 2 inch Fitting
2 inch Meter with 2-1/2 inch Fitting

Features and Benefits:

- ✓ Stainless steel meter with Tri-Clover® fittings.
- ✓ Modular design allows for use with Output Modules, Sensors and Remote Transmitters.
- ✓ 2 Totals (Batch = Resettable, Cumulative = Non-Resettable); Rate of Flow. Factory calibrated in gallons and litres. Field calibratable. Allows user calibration. Includes non-volatile totals.
- ✓ Internal parts are easy to replace.
- ✓ Lithium battery life: 5 years.
- ✓ Accessories easily upgrade meter.

"Look for the blue label!"

A full line of FLOMEC® Industrial Meters are available in a variety of housing materials. Aluminum meters are best suited for petroleum based products. The modular design allows for maximum flexibility in meeting custom applications. Models are available with ISO* or NPT fittings.

* ISO 7 designation is RC

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

Select Your Meter Size:

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

Features and Benefits:

- ✓ Meter is designed for thin fluids < 100 cp.
- ✓ Modular design allows for use with Output Modules, Sensors and Remote Transmitters.
- ✓ 2 Totals (Batch = Resettable, Cumulative = Non-Resettable); Rate of Flow. Factory calibrated in gallons and litres. Field calibratable. Allows user calibration. Includes non-volatile totals.
- ✓ Internal parts are simple to replace for easy maintenance.
- ✓ Lightweight, compact design allows for easy installation.
- ✓ Lithium battery life: 5 years.

ALUMINUM – SPECIFICATIONS

Fitting Type:		NPT or ISO (Female) BSPT*	
Housing Material:		Aluminum	
Meter Sizes Available:		1/2" 3/4" 1" 1-1/2" 2"	
Flow Range:	**1/2" (A05)**	1 - 10 GPM	(3.8 - 37.9 LPM)
	3/4" (A07)	2 - 20 GPM	(7.6 - 75.7 LPM)
	1" (A10)	5 - 50 GPM	(18.9 - 190 LPM)
	1-1/2" (A15)	10 - 100 GPM	(38.0 - 380 LPM)
	2" (A20)	20 - 200 GPM	(76 - 760 LPM)
Accuracy (% of Reading):		**Turbine Only**	**Turbine w/Computer**
	1/2" (A05)	± 2.0%	± 1.5%
	3/4" (A07)	± 1.5%	± 1.0%
	1" (A10)	± 1.5%	± 1.0%
	1-1/2" (A15)	± 1.0%	± 0.75%
	2" (A20)	± 1.0%	± 0.75%
Repeatability:		± 0.1%	
Pressure Rating:		300 PSI / 21 BAR	
Operating Temperature Range:		-40° F to +250° F (-40° C to +121° C)	
with Computer:		0° F to +140° F (-18° C to +60° C)	
Typical K-Factor:	**1/2" (A05)**	2,500 PPG / 660 PPL	
	3/4" (A07)	1,100 PPG / 291 PPL	
	1" (A10)	565 PPG / 149 PPL	
	1-1/2" (A15)	215 PPG / 57 PPL	
	2" (A20)	100 PPG / 26 PPL	
Wetted Materials:	**Housing:**	Aluminum	
	Bearings:	96% Alumina Ceramic	
	Shaft:	Tungsten Carbide	
	Rotor:	PVDF	
	Rings:	316 Stainless Steel	
Frequency Range:	**1/2" (A05)**	42 - 420 Hz @ 1 - 10 GPM	
	3/4" (A07)	37 - 370 Hz @ 2 - 20 GPM	
	1" (A10)	47 - 470 Hz @ 5 - 50 GPM	
	1-1/2" (A15)	36 - 360 Hz @ 10 - 100 GPM	
	2" (A20)	33 - 330 Hz @ 20 - 200 GPM	
Recommended Strainer Size:			
1/2", 3/4" and 1"		60 mesh (250 micron)	
1-1/2" and 2"		30 mesh (595 micron)	
Maximum Flow:	**1/2" (A05)**	15 GPM (56.8 LPM)	
	3/4" (A07)	30 GPM (113.6 LPM)	
	1" (A10)	75 GPM (284 LPM)	
	1-1/2" (A15)	150 GPM (568 LPM)	
	2" (A20)	300 GPM (1,136 LPM)	
Wrench Flat Size:	**1/2" (A05)**	1-1/16 inch (27 mm)	
	3/4" (A07)	1-5/16 inch (33 mm)	
	1" (A10)	1-5/8 inch (41 mm)	
	1-1/2" (A15)	2-3/8 inch (60 mm)	
	2" (A20)	3 inch (75 mm)	
Shipping Weight:	**1/2" (A05)**	1.3 lbs./.59 kg - Turbine Only: 1.1 lbs./.50 kg	
	3/4" (A07)	1.4 lbs./.63 kg - Turbine Only: 1.2 lbs./.50 kg	
	1" (A10)	1.6 lbs./.73 kg - Turbine Only: 1.4 lbs./.63 kg	
	1-1/2" (A15)	2.8 lbs./1.3 kg - Turbine Only: 2.6 lbs./1.2 kg	
	2" (A20)	3.9 lbs./1.7 kg - Turbine Only: 3.7 lbs./1.7 kg	
Calibration Report		Comes standard with G2 Series meters.	
		N.I.S.T. – Certification available.	

ELECTRONIC CHOICES

Local Display, Remote Display & Remote Transmitter Options:	See Electronics Section.

APPROVALS

FM APPROVED · FM APPROVED · CE · NEMA 4 · ATEX · IP65 · IECEx

G2 Industrial Meters **BRASS**

"Look for the blue label!"

The G2 Industrial Brass Meter allows another choice for fluid compatibility. The FLOMEC® Brass Meter works well with most water applications. Use with glucose, lacquer thinners and vegetable juices for example.

* ISO 7 designation is RC

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

Select Your Meter Size:

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

Features and Benefits:

- ✓ Meter is designed for thin fluids < 100 cp.
- ✓ Modular design allows for use with Output Modules, Sensors and Remote Transmitters.
- ✓ 2 Totals (Batch = Resettable, Cumulative = Non-Resettable); Rate of Flow. Factory calibrated in gallons and litres. Field calibratable. Allows user calibration. Includes non-volatile totals.
- ✓ Internal parts are simple to replace for easy maintenance.
- ✓ Lithium battery life: 5 years.

BRASS – SPECIFICATIONS

Fitting Type:		NPT or ISO (Female) BSPT*	
Housing Material:		Brass	
Meter Sizes Available:		1/2" 3/4" 1" 1-1/2" 2"	
Flow Range:	**1/2" (B05)**	1 - 10 GPM	(3.8 - 37.9 LPM)
	3/4" (B07)	2 - 20 GPM	(7.6 - 75.7 LPM)
	1" (B10)	5 - 50 GPM	(18.9 - 190 LPM)
	1-1/2" (B15)	10 - 100 GPM	(38.0 - 380 LPM)
	2" (B20)	20 - 200 GPM	(76 - 760 LPM)
Accuracy (% of Reading):		**Turbine Only**	**Turbine w/Computer**
	1/2" (B05)	± 2.0%	± 1.5%
	3/4" (B07)	± 1.5%	± 1.0%
	1" (B10)	± 1.5%	± 1.0%
	1-1/2" (B15)	± 1.0%	± 0.75%
	2" (B20)	± 1.0%	± 0.75%
Repeatability:		± 0.1%	
Pressure Rating:		300 PSI / 21 BAR	
Operating Temperature Range:		-40° F to +250° F (-40° C to +121° C)	
with Computer:		0° F to +140° F (-18° C to +60° C)	
Typical K-Factor:	**1/2" (B05)**	2,500 PPG / 660 PPL	
	3/4" (B07)	1,100 PPG / 291 PPL	
	1" (B10)	565 PPG / 149 PPL	
	1-1/2" (B15)	215 PPG / 57 PPL	
	2" (B20)	100 PPG / 26 PPL	
Wetted Materials:	**Housing:**	Brass	
	Bearings:	96% Alumina Ceramic	
	Shaft:	Tungsten Carbide	
	Rotor:	PVDF	
	Rings:	316 Stainless Steel	
Frequency Range:	**1/2" (B05)**	42 - 420 Hz @ 1 - 10 GPM	
	3/4" (B07)	37 - 370 Hz @ 2 - 20 GPM	
	1" (B10)	47 - 470 Hz @ 5 - 50 GPM	
	1-1/2" (B15)	36 - 360 Hz @ 10 - 100 GPM	
	2" (B20)	33 - 330 Hz @ 20 - 200 GPM	
Recommended Strainer Size:			
	1/2" (B05)	60 mesh (250 micron)	
	3/4" (B07)	60 mesh (250 micron)	
	1" (B10)	60 mesh (250 micron)	
	1-1/2" (B15)	30 mesh (595 micron)	
	2" (B20)	30 mesh (595 micron)	
Maximum Flow:	**1/2" (B05)**	15 GPM (56.8 LPM)	
	3/4" (B07)	30 GPM (113.6 LPM)	
	1" (B10)	75 GPM (284 LPM)	
	1-1/2" (B15)	150 GPM (568 LPM)	
	2" (B20)	300 GPM (1,136 LPM)	
Wrench Flat Size:	**1/2" (B05)**	1-1/16 inch (27 mm)	
	3/4" (B07)	1-5/16 inch (33 mm)	
	1" (B10)	1-5/8 inch (41 mm)	
	1-1/2" (B15)	2-3/8 inch (60 mm)	
	2" (B20)	3 inch (75 mm)	
Shipping Weight:	**1/2" (B05)**	2.4 lbs./1.0 kg - Turbine Only: 2.2 lbs./1.0 kg	
	3/4" (B07)	2.6 lbs./1.1 kg - Turbine Only: 2.4 lbs./1.0 kg	
	1" (B10)	3.1 lbs./1.4 kg - Turbine Only: 2.9 lbs./1.3 kg	
	1-1/2" (B15)	3.1 lbs./1.4 kg - Turbine Only: 2.9 lbs./1.3 kg	
	2" (B20)	10.0 lbs./4.5 kg - Turbine Only: 9.8 lbs./4.4 kg	
Calibration Report		Comes standard with G2 Series meters.	
		N.I.S.T. – Certification available.	

ELECTRONIC CHOICES

Local Display, Remote Display & Remote Transmitter Options:	See Electronics Section.

APPROVALS

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

"Look for the blue label!"

Looking for a turbine meter that can handle aggressive chemicals? Look at the PVDF Meter for a housing material that resists abrasion and has great chemical compatibility.

Use PVDF Meters with harsh chemicals: Bleach, Ferric Chloride, Phenol, Sulfuric Acid or Phosphoric Acid.

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

PVDF – SPECIFICATIONS

Fitting Type:		NPT or ISO (Female) BSPT*	
Housing Material:		PVDF	
Meter Sizes Available:		1/2" and 1"	
Flow Range:	**1/2" (P05)**	1.2 - 12 GPM	(4.54 - 45.42 LPM)
	1" (P10)	5 - 50 GPM	(18.9 - 190 LPM)
Accuracy (% of Reading):		**Turbine Only**	**Turbine w/Computer**
	1/2" (P05)	± 2.0%	± 1.5%
	1" (P10)	± 1.5%	± 1.0%
Repeatability:		± 0.3%	
Pressure Rating:		100 PSI / 6.9 BAR	
Operating Temperature Range:		-20° F to +180° F (-28° C to +82° C)	
with Computer:		0° F to +140° F (-18° C to +60° C)	
Maximum Storage Temperature:		-40° F to +250° F (-40° C to +121° C)	
Typical K-Factor:	**1/2" (P05)**	2,400 PPG / 634 PPL	
	1" (P10)	540 PPG / 143 PPL	
Wetted Materials:	**Housing:**	PVDF (15% Carbon Fiber Filled)	
	Bearings:	Ceramic - 98% Alumina	
	Shaft:	Ceramic - 98% Alumina	
	Rotor:	PVDF	
	Rings:	Fluorocarbon	
Optional O-Ring:		PTFE	
Frequency Range:	**1/2" (P05)**	48 - 480 Hz @ 1.2 - 12 GPM	
	1" (P10)	45 - 450 Hz @ 5 - 50 GPM	
Recommended Strainer Size:			
	1/2" (P05)	60 mesh (250 micron)	
	1" (P10)	30 mesh (595 micron)	
Maximum Flow:	**1/2" (P05)**	15 GPM (56.8 LPM)	
	1" (P10)	75 GPM (284 LPM)	
Shipping Weight:	**1/2" (P05)**	1.3 lbs./0.6 kg - Turbine Only: 1.1 lbs./.54 kg	
	1" (P10)	1.9 lbs./0.8 kg - Turbine Only: 1.7 lbs./.77 kg	
Calibration Report		Comes standard with G2 Series meters.	
		N.I.S.T. – Certification available.	

ELECTRONIC CHOICES

Local Display, Remote Display & Remote Transmitter Options:	See Electronics Section.

APPROVALS

FM APPROVED · FM APPROVED (c US) · CE · NEMA 4 · ATEX Ex · **IP65** · **IECEx**

* ISO 7 designation is RC

Select Your Meter Size:

1/2 inch 1 inch

Features and Benefits:

- ✓ Meter is designed for thin fluids < 100 cp.
- ✓ Lithium battery life: 5 years.
- ✓ Available with Local Display or Remote Transmitter.
- ✓ 2 Totals (Batch = Resettable, Cumulative = Non-Resettable); Rate of Flow. Factory calibrated in gallons and litres. Field calibratable. Allows user calibration. Includes non-volatile totals.
- ✓ Accessories easily upgrade meter.
- ✓ One field replaceable internal part making maintenance easy.

FM Approved Remote Kit Assembly
(Part No. 113275-1)

FM Approved Remote Kit Assembly Installed

The Factory Mutual (FM) Approved Remote Kit Assembly modifies FLOMEC® Electronic Digital Meters for applications in specialized situations including remote indication and high or low fluid temperature metering applications. This kit provides the versatility of panel mounting of the LCD readout up to 100 ft. (30 m) from the turbine.

This kit consists of a sensor module, a dust cover assembly and 10 ft. of cable. Requires a complete meter with display.

Features and Benefits:

- ✓ Maintains FM Approval.
- ✓ Accommodates fluid temperatures from -40° F to +250° F (-40° C to +121° C) depending on meter.
- ✓ This kit can upgrade an existing FLOMEC® meter or can be purchased with a new meter.
- ✓ Battery powered from meter; no additional power required.

SPECIFICATIONS	
Magnetic Pickup:	1.3 k Ohm, 90 mH
Signal Type:	Sine Wave
Voltage:	Peak to Peak 10 mV to 500 mV
Frequency:	11 to 750 Hz
Cable:	10 ft. (3 m), 2-conductor shielded, Belden #9501

APPROVALS

FM APPROVED · FM C US APPROVED · CE · NEMA 4 · ATEX Ex · **IP65**

Standard Remote Kit Assembly
(Part No. 113265-1)

Standard Remote Kit Assembly Installed

The Standard Remote Kit Assembly modifies FLOMEC® Electronic Digital Meters for applications in specialized situations including remote indication and high or low fluid temperature metering applications. This kit also provides the versatility of panel mounting of the LCD readout up to 300 ft. (90 m) from the turbine housing and sensor.

This kit consists of a sensor module, a dust cover assembly and 10 ft. (3 m) of cable. Requires a complete meter with display.

Features and Benefits:

- ✓ Accommodates fluid temperatures from -40° F to +250° F (-40° C to +121° C) depending on meter.
- ✓ This kit can upgrade an existing FLOMEC® meter or can be purchased with a new meter.
- ✓ Battery powered from meter; no additional power required.

SPECIFICATIONS	
Magnetic Pickup:	1.5 k Ohm, 700 mH
Signal Type:	Sine Wave
Voltage:	Peak to Peak 33 mV to 825 mV
Frequency:	11 to 750 Hz
Cable:	10 ft. (3 m), 2-conductor shielded, Belden #1266A or #8451

CE

Conditioned Signal Output Module
(Part No. 113435-1)

Conditioned Signal Output Module Installed

This module provides an unscaled, amplified, digital signal capable of transmission up to 5,000 ft. (1.5 km).There is no need for additional signal conditioning or amplification devices to achieve the desired digital signal. Use on G2 "Turbine Only" model.

The module is factory assembled for Open Collector signal output and operates from an external 9 to 35 volt power source. By changing terminal connections and adding a battery kit, the module provides a self-powered 6-volt Square Wave signal.

Features and Benefits:

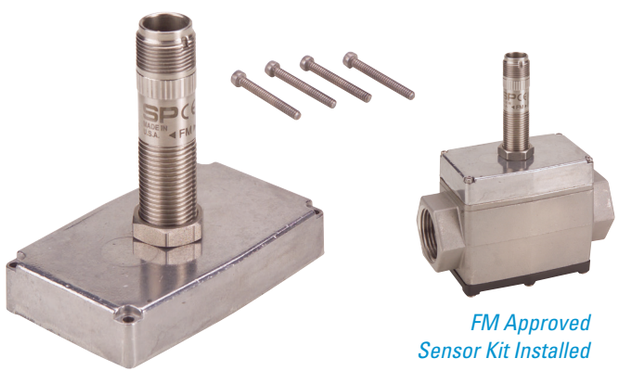
- ✓ Provides two digital signals: Open Collector or 6-volt Square Wave and can communicate with most process control devices.
- ✓ Operating temperature range of -40° F to +212° F (-40° C to +100° C).
- ✓ Can be externally powered or battery powered.

SPECIFICATIONS	
Connector:	Hubble PG7
Signal Type:	Open Collector (NPN)
Power:	External 9 to 35 VDC, approximately 1 mA
Connection:	Three wire
Frequency:	0 to 750 Hz
Cable:	10 ft. (3 m) Belden #9363

APPROVALS

CE

FM Approved Sensor Kit
(Part No. 120077-01)



FM Approved Sensor Kit Installed

The Factory Mutual (FM) Approved Sensor is designed for use with any G2 Turbine Meter when rotor pulse data is required and the meter is located within a hazardous location. The output signal is compatible with existing FLOMEC® remote electronics. Use on G2 "Turbine Only" model.

This kit includes pickup, screws, coverplate and jam nut. Connection Kit sold separately.

Features and Benefits:

- ✓ Mounts to any G2 meter housing via the coverplate.
- ✓ Ideal for indoor or outdoor applications.
- ✓ Factory Mutual (Intrinsic Safe) Class 1, Div. 1, Groups ABCDEFG.

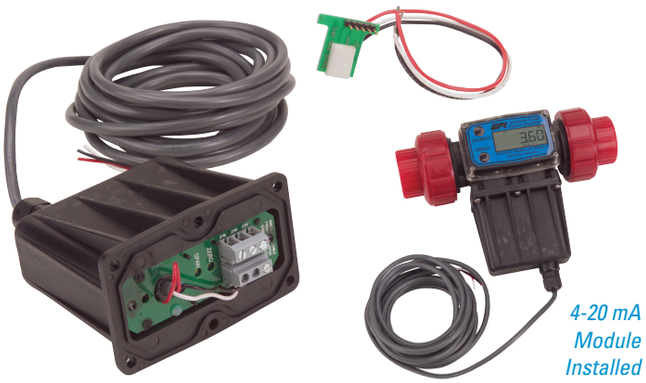
SPECIFICATIONS	
Signal Type:	Open Collector (NPN)
Power Source:	8 to 30 VDC
Supply Current:	≤ 15 mA
Frequency:	5 to 10k Hz
Cable:	None provided - 3 conductor required for use
Temperature:	Sensor is capable of operating in the range of -40° F to +248° F (-40° C to +120° C). For Class I, II, III, Division 1: Group ABCDEFG and CSA: Class 1, Div. 1 Group ABCD, the following temperature codes apply: T6 +185° F (+85° C) at +149° F (+65°C) Ambient Temperature T5 +212° F (+100° C) at +186° F (+85° C) Ambient Temperature

APPROVALS

FM APPROVED CE

G2 Industrial METER MODULES

4-20 mA Module
(Part No. 125100-1)



4-20 mA Module Installed

Combine the 4-20 mA Module with an Industrial Grade Turbine and Computer Electronics to provide an industry standard analog signal for connection to a wide variety of chart recorders, display equipment and process control equipment.

This module outputs an analog signal which is directly proportional to the frequency of the digital output. With some simple adjustments, you can scale the module to represent whatever range is desired. Kit comes with circuit, assembly, enclosure and screws.

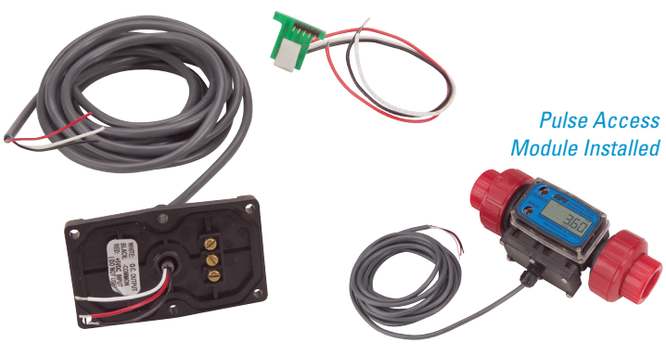
Features and Benefits:

- ✓ Communicates with most analog process control devices.
- ✓ Operating temperature range of +14° F to +140° F (-10° C to +60° C).
- ✓ Module installs on all turbine sizes.
- ✓ Provides external power to computer electronics.

SPECIFICATIONS	
Signal Type:	Analog
Power:	Loop Powered
Voltage:	7 to 30 VDC
Strain Relief:	Hubble PG7
Cable:	10 ft. (3 m), Belden #9363

CE

Pulse Access Module
(Part No. 125060-1)



Pulse Access Module Installed

The Pulse Access Module provides an unscaled, digital signal from your FLOMEC® meter by accessing circuitry from the on-board computer readout.

This kit comes complete, ready to install, with a circuit assembly, coverplate assembly and 10 ft. of cable.

The Pulse Access Module requires both a FLOMEC Turbine and an 09 Computer Electronics which are sold separately.

Features and Benefits:

- ✓ Provides a digital Open Collector signal.
- ✓ Operating temperature range of +14° F to +140° F (-10° C to +60° C).
- ✓ Can transmit signal up to 5,000 ft. (1.5 km).
- ✓ Communicates with most digital process control devices and its easy to install.

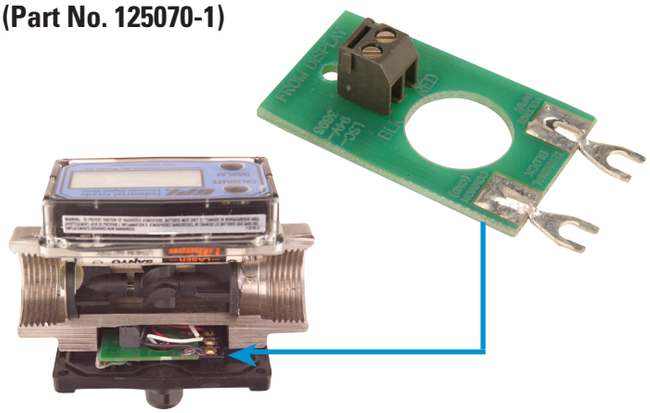
SPECIFICATIONS	
Signal Type:	Open Collector (NPN)
Voltage:	0 to 60 VDC
Frequency:	0 to 750 Hz
Strain Relief:	Hubble PG7
Cable:	10 ft. (3 m) Belden #9363

APPROVALS

CE

External Power Module

(Part No. 125070-1)



Combine the External Power Module and the Pulse Access Module to provide external power capabilities to a FLOMEC® Electronic Digital Meter.

The module is designed to provide regulated power to the Computer Electronics. The batteries then become a backup or auxiliary power source.

If desired, a pulse output may be accessed. The unscaled, digital signal is capable of transmission up to 5,000 ft. (1.5 km).

Features and Benefits:

- ✓ Internal batteries become a backup or auxiliary power source.
- ✓ Operating temperature range of+14° F to +140° F (-10° C to +60° C).
- ✓ Input power is 7 to 30 volt external power.

SPECIFICATIONS	
Voltage:	7 to 30 VDC @ 1 mA

APPROVALS

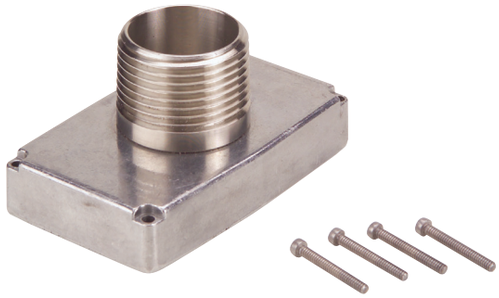
CE

G2 Industrial Meter **ACCESSORIES**

Conduit Adapter Kit
(Part No. 113437-01)

The Conduit Adapter allows you to enclose wiring from the magnetic pickup. The kit includes a turbine meter cover with a 1 inch male NPT conduit fitting and screws for plastic or metal installation.

Conduit Adapter Kit Installed



90° Display Adapter Kit
(Part No. 125260-01)

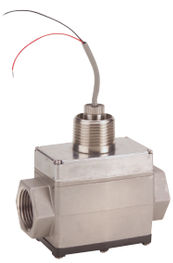
90° Display Adapter Kit allows for horizontal readout of vertical meters. Includes adapter, O-ring, screws and foam spacers required for installation.

Can be ordered with a meter.
Specify -19 option with meter order.

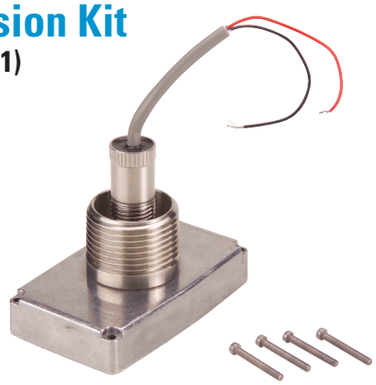
Kit Shown Installed on PVDF Meter

510 Conversion Kit
(Part No. 11344001)

This new kit combines the Conduit Adapter with a magnetic pickup to allow easy installation of the 510 Series Displays or Transmitters to a G2 Meter.



510 Conversion Kit Installed

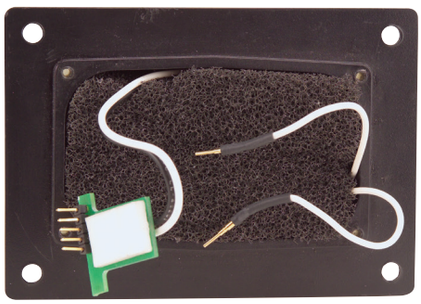


Pulse Access Dust Cover

(Part No. 125080-1)

Used with the Remote Kit, this part replaces the dust cover that houses the electronic display. This module provides a digital, open collector (NPN) output signal. Use this combination to communicate to a PLC or other piece of electronic equipment.

Pulse Access Dust Cover Installed



Electronics Programmer

(Part No. 113800-06)

The Electronics Programmer is a system composed of a small USB interface unit, a USB cable, and a software program. This kit is perfect for reconfiguring multiple Electronics for the first time or when changing the configuration over the life of the meter.

Used with your PC, it allows quick, convenient on-screen setting (and reading) of setup options and calibration data from many FLOMEC® Electronic Digital Meters (EDMs).

TM SERIES Water Meters

TM SERIES®
water meters

TM SERIES WATER METERS

TM Water Meters are accurate, economical and designed to last. Choose TM Water Meters for water processing and irrigation applications. The TM Series Water Meters meet Schedule 80 PVC specifications and come standard with the low-profile display. Meters come in seven sizes with three fitting types, offering flowrates from 1 to 800 gallons per minute.

TM SERIES Meter Number Reference

Product Identifier

TM = Water Meter

Turbine Size

See Reference section 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)
-GX	=	4-20 mA Output, With Display (3 in. and 4 in. meters only)
-SC	=	Scaled Pulse Output (3 in. and 4 in. meters only)

TM + 300 + -N + -GA ← (Sample Model Number)

TM SERIES 1/2" - 2" Water Meters

Model TM150-N

"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 next page.) Choose either Spigot (pipe end) or NPT and BSPP fittings.

TM SERIES®
water meters

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

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:	225 PSI / 15.3 BAR at 73° F (23° C)	
BSP:	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

CE

* BSP available in 1", 1 1/2" and 2" only.

Model TM200

"Look for the blue label"

TM SERIES 3" & 4" Water Meters

Model - TM300-F

"Look for the blue label!"

TM Series Meters are designed for use in water applications. The 3" and 4" models are shown here. Choose Spigot (pipe end), NPT, BSP or 150# ANSI Flange fittings.

TM SERIES®
water meters

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

ACCURACY: ±3.0% READING

Features and Benefits:

- ✓ Available in Spigot, NPT, BSPP and Flange fittings.
- ✓ Displays in gallons, litres and cubic feet.
- ✓ Indicates Batch, Cumulative Totals and Rate of Flow.
- ✓ One-piece field replaceable turbine assembly.
- ✓ Spigot models may be cut to length.
- ✓ 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
- Waste water treatment equipment
- Chemical feed systems
- Cooling towers
- Irrigation

TM SERIES – SPECIFICATIONS

Design Type:	Turbine		
Fitting Size:	3" 4"		
Fitting Type:	Schedule 80 Spigot (Pipe) End, NPT (Female), 150# ANSI Flange or DIN 100 Flange		
Flow Range:			
3" - TM 300:	40 - 400 GPM (151 - 1514 LPM)		
Extended Range:	30 - 600 GPM (131 - 2271 LPM)		
4" - TM400:	60 - 600 GPM (227 - 2271 LPM)		
Extended Range:	40 - 800 GPM (151 - 3028 LPM)		
Accuracy:	± 3.0% of reading		
Pressure Rating:	225 PSI / 15.3 BAR at 73° F (23° C)		
DIN:	135 PSI / 9.1 BAR at 73° F (23° C)		
For CE Applications:	135 PSI / 9.1 BAR at 73° F (23° C)		
Operating Temperature:	+32° F to +140° F (0° to +60° C)		
Typical K-Factor:			
3" - TM 300:	43 PPG / 11 PPL		
4" - TM400:	17 PPG / 4.5 PPL		
Battery Life:	5 Years		
Wetted Materials:			
Housing:	PVC		
Bearings:	PEEK		
Shaft & Thrust Washers:	Stainless Steel		
Rotor & Nose Cone:	Acetal		
Signal Generator:	Ferrite		
Shipping Weight (approx.):	**Spigot**	**NPT**	**Flange**
3" - TM300:	2.4 lbs.	3.9 lbs.	5.8 lbs.
	(1.09 kg)	(1.77 kg)	(2.63 kg)
4" - TM400:	3.7 lbs.	6.1 lbs.	9.2 lbs.
	(1.68 kg)	(2.77 kg)	(4.17 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.		

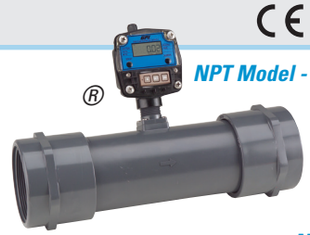
ELECTRONIC CHOICES

GG, GX, GA or SC:	See Electronics Section.

APPROVALS

CE

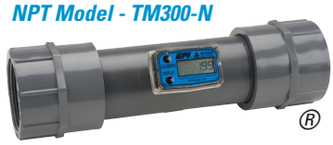
NPT Model - TM400-N-GX



"Look for the blue label!"

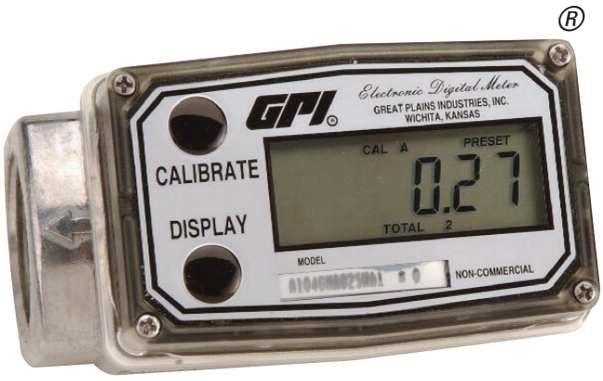
Spigot Model -TM400

NPT Model - TM300-N



FLOMEC™

A1 SERIES Commercial Grade Meters



"Look for the silver label!"

"Look for the silver label!"

A1 SERIES COMMERCIAL GRADE METERS

Commercial Grade Meters are designed as self-contained, battery powered units. These indicating meters come in Aluminum or Nylon only. A1 Meters are not field serviceable like the popular G2 Series Meters. For flowmeters with advanced features and additional housing materials, refer to the G Series, G2 Series, OM Series or TM Series sections in this catalog.

BUILD-YOUR-OWN A1 Series Meter

1) Select Your Turbine

Aluminum

Nylon

2) Select Your Electronic Choice

For further details see the Electronics Section.

"Look for the silver label!"

09 Computer

XX No Computer

3) Select Your Module

Standard Remote Kit

FM Approved Remote Kit

Conditioned Signal Output Module

4) Do You Require Any Accessories?

Display Adapter Kit

Electronics Programmer

A1 Series METER NUMBER REFERENCE

Product Identifier

A1 = Commercial Grade Electronic Digital Meter

Electronic Choice

09 = 2 Totals (1 Resettable, 1 Cumulative), Factory Calibration in Gallons and Litres, User Configuration and Rate of Flow

XX = No Computer

Calibration

GM = Gallons / Minute

LM = Litres / Minute

XX = No Computer

Turbine Material & Size

A025 = Aluminum – Low Flow

A100 = Aluminum – 1 inch

A200 = Aluminum – 2 inch

N025 = Nylon – Low Flow

N100 = Nylon – 1 inch

X### = No Turbine *

See Reference section for meter dimensions.

Fitting Type

N = NPT (Female)

I = ISO (Female) BSPT

B = BSPP (Female) - available on A025 and A100 turbines only

X = No Turbine

Packaging

A1 = Standard Low Flow – 1 inch

A2 = Standard – 2 inch

B1 = Low Flow – 1 inch Turbine Only

B2 = 2 inch Turbine Only

B3 = Computer Only

C1 = Generic Low Flow – 1 inch

C2 = Generic – 2 inch

C3 = Generic Computer Only

A1 + 09 + LM + N100 + N + A1 ← (Sample Model Number)

** When ordering Computer Assembly Only, specify Turbine Housing size.*

* ISO 7 designation is RC

A1 Commercial Grade Meters

FLOMEC® Commercial Grade Meters are identified by an A1 prefix. Commercial Grade Meters are packaged as a self-contained unit. Select this meter when you need an accurate, basic meter. GPI Commercial Grade Meters come in Aluminum or Nylon housing material.

Choose one of three sizes of Aluminum meters for petroleum products. Use the Nylon meters for water or non-aggressive chemicals.

Aluminum

"Look for the silver label!"

Nylon

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

ACCURACY: ±1.5% READING
(On models A100, A200 and N100)

Select Your Fitting Size:

Aluminum

Low Flow 1 inch 2 inch

Nylon

Low Flow 1 inch

Features and Benefits:

- ✓ Unique package combines Turbine and LCD into a self-contained, compact, economical meter.
- ✓ Local Display Computer features: 2 Totals (1 Resettable, 1 Cumulative); Factory Calibration in gallons and litres; User Configuration and Rate of Flow.
- ✓ Output capabilities available to communicate with process control equipment.
- ✓ Lightweight, compact design allows for easy installation.
- ✓ Lithium battery life: 5 years.

APPROVALS

FM APPROVED · FM APPROVED (c US) · CE · NEMA 4 · ATEX Ex · **IP65** · **IECEx**

A1 Meter **SPECIFICATIONS**

	ALUMINUM			NYLON	
	A025 (Low Flow)	**A100 (1 inch)**	**A200 (2 inch)**	**N025 (Low Flow)**	**N100 (1 inch)**
Design Type:	Paddlewheel	Turbine	Turbine	Paddlewheel	Turbine
Housing Material:	Aluminum	Aluminum	Aluminum	Nylon	Nylon
Fitting Size:	1 inch	1 inch	2 inch	1 inch	1 inch
Fitting Type:	NPT, ISO♦ or BSPP(female)	NPT, ISO♦ or BSPP(female)	NPT or ISO♦ (female)	NPT or ISO♦ (female)	NPT or ISO♦ (female)
Flow Range (GPM):	0.3 - 3 GPM	3 - 50 GPM	30 - 300 GPM	0.3 - 3 GPM	3 - 50 GPM
Flow Range (LPM):	1 - 11 LPM	11 - 190 LPM	114 - 1,135 LPM	1 - 11 LPM	11 - 190 LPM
Accuracy:	Application Dependent*	± 1.5% of reading	± 1.5% of reading	Application Dependent*	± 1.5% of reading
Repeatability:	± 1%	± 0.2%	± 0.2%	± 1%	± 0.2%
Pressure Rating:	300 PSI / 21 BAR	300 PSI / 21 BAR	300 PSI / 21 BAR	150 PSI / 10.2 BAR	150 PSI / 10.2 BAR
Operating Temperature Range:	-40° F to +250° F	-40° F to +250° F	-40° F to +250° F	-40° F to +250° F	-40° F to +250° F
	(-40° C to +121° C)	(-40° C to +121° C)	(-40° C to +121° C)	(-40° C to +121° C)	(-40° C to +121° C)
with Computer:	0° F to +140° F	0° F to +140° F	0° F to +140° F	0° F to +140° F	0° F to +140° F
	(-18° C to +60° C)	(-18° C to +60° C)	(-18° C to +60° C)	(-18° C to +60° C)	(-18° C to +60° C)
Wetted Material - Housing:	Aluminum	Aluminum	Aluminum	Nylon	Nylon
Bearings:	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic
Shaft:	Tungsten Carbide	Tungsten Carbide	Tungsten Carbide	Tungsten Carbide	Tungsten Carbide
Rotor:	Nylon	Nylon	Nylon	Nylon	Nylon
Signal Generators:	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite
Rings:	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel
Typical K-Factor:	2200 PPG / 581 PPL	730 PPG / 193 PPL	72 PPG / 19 PPL	2200 PPG / 581 PPL	730 PPG / 193 PPL
Frequency Range:	11 - 110 Hz @	36.5 - 608.3 Hz @	36 - 360 Hz @	11 - 110 Hz @	36.5 - 608.3 Hz @
	0.3 - 3 GPM	3 - 50 GPM	30 - 300 GPM	0.3 - 3 GPM	3 - 50 GPM
Recommended Strainer Size:	55 mesh	28 mesh	28 mesh	55 mesh	28 mesh
Shipping Weight:	1.35 lbs. (0.61 kg)	1.35 lbs. (0.61 kg)	3.0 lbs. (1.36 kg)	1.0 lbs. (0.5 kg)	1.0 lbs. (0.5 kg)
Local Display:	09 Computer (See page 63)	09 Computer (See page 63)	09 Computer (See page 63)	09 Computer (See page 63)	09 Computer (See page 63)
Calibration Report	Comes standard with A1 Series Meters. N.I.S.T. – Certification available.				

* Accuracy can vary up to ± 5% depending on installation and fluid type.
Field Calibration is recommended for best accuracy.

♦ ISO 7 Designation is RC.

FM Approved Remote Kit Assembly

(Part No. 113275-1)

FM Approved Remote Kit Assembly Installed

The Factory Mutual (FM) Approved Remote Kit Assembly modifies FLOMEC® Electronic Digital Meters for applications in specialized situations including remote indication and high or low fluid temperature metering applications. This kit provides the versatility of panel mounting of the LCD readout up to 100 ft. (30 m) from the turbine.

This kit consists of a sensor module, a dust cover assembly and 10 ft. (3 m) of cable; it also requires a 09 Computer.

Features and Benefits:

- ✓ Maintains FM Approval.
- ✓ Accommodates fluid temperatures from -40° F to +250° F (-40° C to +121° C).
- ✓ This kit can upgrade an existing FLOMEC® meter or can be purchased with a new meter.
- ✓ Use this module with GPI Industrial or Commercial Grade Electronic Digital Meters.

SPECIFICATIONS

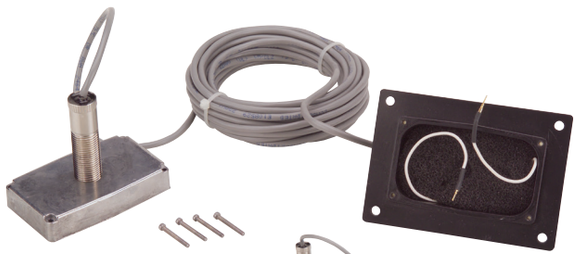
Magnetic Pickup:	1.3 k Ohm, 90 mH
Signal Type:	Sine Wave
Voltage:	Peak to Peak 10 mV to 500 mV
Frequency:	11 to 750 Hz
Cable:	10 ft. (3 m), 2-conductor shielded, Belden #9501

APPROVALS

FM APPROVED CE

Standard Remote Kit Assembly

(Part No. 113265-1)



Standard Remote Kit Assembly Installed

The Standard Remote Kit Assembly modifies FLOMEC® Electronic Digital Meters for applications in specialized situations including remote indication and high or low fluid temperature metering applications. This kit also provides the versatility of panel mounting of the LCD readout up to 300 ft. (90 m) from the turbine housing and sensor.

This kit consists of a sensor module, a dust cover assembly and 10 ft. (3 m) of cable; it also requires a 09 Computer.

Do not use on A1 2-inch meter. Order 113275-1.

Features and Benefits:

- ✓ Accommodates fluid temperatures from -40° F to +250° F (-40° C to +121° C).
- ✓ This kit can upgrade an existing FLOMEC® meter or can be purchased with a new meter.
- ✓ Battery powered from meter; no additional power required.

SPECIFICATIONS

Magnetic Pickup:	1.5 k Ohm, 700 mH
Signal Type:	Sine Wave
Voltage:	Peak to Peak 33 mV to 825 mV
Frequency:	11 to 750 Hz
Cable:	10 ft. (3 m), 2-conductor shielded, Belden #1266A or #8451

CE

A1 Meter MODULES / ACCESSORIES

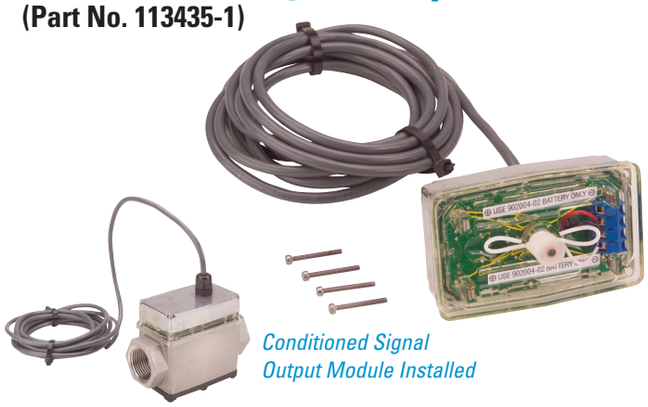
Features and Benefits:

- ✓ Provides two digital signals: Open Collector or 6-volt Square Wave and can communicate with most process control devices.
- ✓ Operating temperature range of -40° F to +212° F (-40° C to +100° C).
- ✓ Can be externally powered or battery powered.

SPECIFICATIONS	
Connector:	Hubble PG7
Signal Type:	Open Collector (NPN)
Power:	External 9 to 35 VDC, approximately 1 mA
Connection:	Three wire
Frequency:	0 to 750 Hz
Cable:	10 ft. (3 m) Belden #9363
APPROVALS	
CE	

Conditioned Signal Output Module

(Part No. 113435-1)



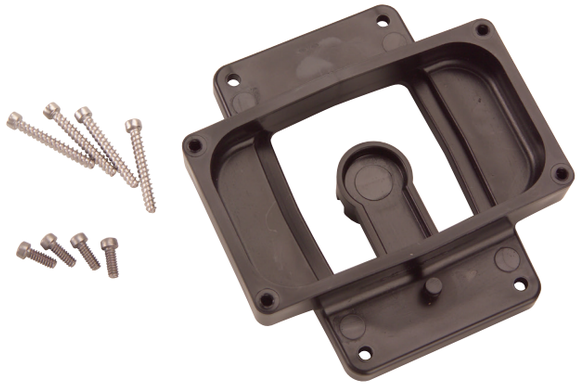
Conditioned Signal Output Module Installed

This module provides an unscaled, amplified, digital signal capable of transmission up to 5,000 ft. (1.5 km). There is no need for additional signal conditioning or amplification devices to achieve the desired digital signal. Use on G2 "Turbine Only" model.

The module is factory assembled for Open Collector signal output and operates from an external 9 to 35 volt power source. By changing terminal connections and adding a battery kit, the module provides a self-powered 6-volt Square Wave signal.

90° Display Adapter Kit

(Part No. 125260-01)



90° Display Adapter Kit allows for horizontal readout of vertical meters. Includes adapter, O-ring, screws and foam spacers required for installation.

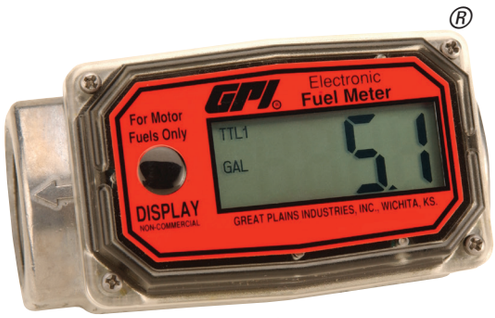
Kit Shown Installed on PVDF Meter

GPI Electronics Programmer

(Part No. 113800-06)

The GPI Electronics Programmer is a system composed of a small USB interface unit, a USB cable, and a software program. This kit is perfect for reconfiguring multiple GPI Electronics for the first time or when changing the configuration over the life of the meter.

Used with your PC, it allows quick, convenient on-screen setting (and reading) of setup options and calibration data from many GPI Electronic Digital Meters (EDMs).



"Look for the red label!"

ECONOMY ELECTRONIC DIGITAL METERS

A variety of GPI® economy meters are available to meet specific applications. These meters are great for monitoring and indication. They provide lower accuracy than our other meters, but are an economical choice in many applications. Unlike the popular G2 Series Meters, the economy meters are not field serviceable.

LM SERIES Lube Meters

Model No. LM50P

Model No. LM50D

Model No. LM50M

Choose from one of the GPI® economy positive displacement meters. These compact meters are perfect for metering engine oils or transmission fluids (maximum viscosity 1,000 cp). The LM50M Mechanical Meter is suitable for hazardous locations.

Choose the LM50P when Pulse Out without Display meets your application. The LM50D model includes an easy-to-read display. All meters are designed with oval rotors for optimum accuracy.

LM50P – SPECIFICATIONS

Construction:	Aluminum
Wetted Components:	Acetal, Aluminum, Nitril and Steel
Connections:	1/2 inch NPT or BSPT (Female)
K-Factor:	424 PPG / 112 PPL
Flow Range:	0.26 - 7.8 GPM (1 - 30 LPM) @ 5 - 1,000 cp
Accuracy:	± 0.5% of reading
Max. Working Pressure:	1,000 PSI / 69 BAR
Operating Temperature:	+23° F to +131° F (-5° C to +55° C)
Model Numbers:	LM50PB (Lube Meter 1/2" BSPT)
	LM50PN (Lube Meter 1/2" NPT)

LM50D – SPECIFICATIONS

Construction:	Aluminum
Wetted Components:	Acetal, Aluminum, Nitril and Steel
Connections:	1/2 inch NPT or BSPT (Female)
Flow Range:	0.26 - 7.8 GPM (1 - 30 LPM) @ 5 - 1,000 cp
Accuracy:	± 0.5% of reading
Max. Working Pressure:	1,000 PSI / 69 BAR
Operating Temperature:	+23° F to +131° F (-5° C to +55° C)
Battery:	Lithium
Display:	6 digit; Shows Batch, Reset Total, Non-Reset Total
Display Units:	User selectable (gallons, litres, pints or quarts)
Model Numbers:	LM50DB (Lube Meter with Display 1/2" BSPT)
	LM50DN (Lube Meter with Display 1/2" NPT)

LM50M – SPECIFICATIONS

Construction:	Aluminum
Wetted Components:	Acetal, Aluminum, Nitril and Steel
Connections:	1/2 inch NPT or BSPT (Female)
Flow Range:	0.26 - 7.8 GPM (1 - 30 LPM) @ 5 - 1,000 cp
Accuracy:	± 1.0% of reading
Max. Working Pressure:	1,000 PSI / 69 BAR
Operating Temperature:	+14° F (-10° C)
Battery:	None required
Model Numbers:	LM50MNG - 1/2" NPT fitting. Calibrated in gallons
	LM50MNL - 1/2" NPT fitting. Calibrated in litres
	LM50MBL - 1/2" BSPT fitting. Calibrated in litres
	LM50MBQ - 1/2" BSPT fitting. Calibrated in quarts
	LM50MBG - 1/2" BSPT fitting. Calibrated in gallons
	LM50MNQ - 1/2" NPT fitting. Calibrated in quarts

Features and Benefits:

- ✓ Extremely accurate.
- ✓ Dependable performance.
- ✓ Reliable, trouble-free operation.
- ✓ Total

01N Series Water Meter

ACCURACY: ±5.0% OF READING

Features and Benefits:

- ✓ Simple, small and sturdy Electronic Digital Water Meter with rugged nylon housing.
- ✓ Mount on the end of a hose or a pipe, in-line.
- ✓ Complete meter, including turbine assembly, micro-processor and LCD readout.
- ✓ Choice of gallon and litre measurement.
- ✓ Works well on any pump or gravity feed system with at least 3-30 GPM (10-100 LPM) flow range.

01N – SPECIFICATIONS

Design Type:	Turbine
Fitting Size:	1 inch
Fitting Type:	NPT or BSP
Flow Range:	3 - 30 GPM (10 - 100 LPM)
Accuracy:	± 5.0% of reading
Repeatability:	± .5%
Pressure Rating:	150 PSIG (10.2 BAR)
Operating Temperature:	+14° F to +131° F (-10° C to +55° C)
Wetted Material:	
Housing:	Nylon
Bearings:	Ceramic
Shaft:	Tungsten Carbide
Rotor:	Nylon
Signal Generators:	Ferrite
Rings:	316 Stainless Steel
Shipping Weight (approx.):	1.1 lbs. (0.5 kg) (See page 76 for meter dimensions)
Local Display:	Includes: 2 Totals (1 Cumulative, 1 Batch); Permanent factory calibration for water.

APPROVALS

CE

01A Series Fuel Meter

"Look for the red label!"

ACCURACY: ±5.0% OF READING

Features and Benefits:

- ✓ Lightweight, accurate, and reliable turbine meter with rugged aluminum housing and sealed electronic circuitry.
- ✓ Powered by two AAA batteries that are easy to replace.
- ✓ Factory calibrated for petroleum fuel with a choice of gallon and litre measurement.
- ✓ Works well on any pump or gravity feed system with at least 3-30 GPM (10-100 LPM) flow range.

01A – SPECIFICATIONS

Design Type:	Turbine
Fitting Size:	1 inch
Fitting Type:	NPT or ISO or BSPP (Female)
Flow Range:	3 - 30 GPM (10 - 100 LPM)
Accuracy:	± 5.0% of reading
Repeatability:	± .5%
Pressure Rating:	300 PSIG (21 BAR)
Operating Temperature:	+14° F to +130° F (-10° C to +54° C)
Wetted Material:	
Housing:	Aluminum
Bearings:	Ceramic
Shaft:	Tungsten Carbide
Rotor:	Nylon
Signal Generators:	Ferrite
Rings:	316 Stainless Steel
Shipping Weight (approx.):	2 lbs. (0.9 kg) (See page 76 for meter dimensions)
Local Display:	Includes: 2 Totals (1 Cumulative, 1 Batch); Permanent factory calibration for gasoline, diesel fuel or kerosene.

APPROVALS

FM APPROVED CE

FM-300 Chemical Meters

FM-300H/R Chemical Meter

FM-300H/R – SPECIFICATIONS	
Design Type:	Nutating Disc with Electronic Display
Fitting Size:	1 inch
Fitting Type:	Inlet: NPT (Female) Outlet: NPT (Male)
Flow Range:	2 - 20 GPM (7 - 75 LPM)
Accuracy:	± 2.0% of reading
Pressure Rating:	50 PSIG (3.4 BAR)
Operating Temperature:	+15° F to +130° F (-9° C to +54° C)
Wetted Material:	
Housing:	PBT Polyester
Fluid Chamber:	PBT Polyester
Signal Generator Kit:	PBT Polyester / Ferrite
Seals:	Fluorocarbon
Clip:	316 Stainless Steel
Shipping Weight (approx.):	3 lbs. (1.4 kg)
Display Options:	Local Display includes: Rate of Flow, Batch and Cumulative Totals. Factory and Field Calibration.

ACCURACY: ±2.0% OF READING

Features and Benefits:

- ✓ Simple, small and sturdy Electronic Digital Disc Meter with rugged PBT housing.
- ✓ Mount on the end of a hose or a pipe, in-line.
- ✓ Complete meter, including disc assembly, micro-processor and LCD readout.
- ✓ Choice of gallon and litre measurement.
- ✓ Factory calibrated for thin and medium fluids. Field calibrate for more viscous fluids.

APPROVALS

CE

OM SERIES OVAL GEAR METERS

OM Series Oval Gear Meters are designed for low flow and high accuracy. OM Series Meters are great for viscous fluids. Units are available with pulse output from either a Reed Switch or Hall Effect Sensor. Electronics choices for the OM Series Meters are covered in the Electronic Choices Section.

BUILD-YOUR-OWN OM Series Meter

1) Select Your OM Meter

OM Meters come in a variety of sizes and materials.

Pulse Meter

Mechanical Meter

2) Select Your Sensor

Reed Switch

Hall Effect
Requires Dedicated Power Source

Combo
Reed Switch / Hall Effect
(Standard)

Quadrature Pulse
Bi-directional Flow

3) Select Your Electronics Choice

For further details and selections see the Electronics Section.

RT12

EB10

RT40

E018 / E110

F018

GA
4-20 mA Output Without Display
(Remote)

GG
Display With Pulse Output
(Remote)

GX
Display 4-20 mA Output
(Remote)

Pulse Output

4) Need a Strainer?

Oval Gear Meters work best with clean fluid, free of debris.
GPI carries Y Strainers to fit all models of Oval Gear Meters. These strainers range from 1/4 in. to 2 in. models. All sizes are 316 Stainless Steel and come complete with blow-off and plug. See page 79 for strainer specifications.

METER NUMBER REFERENCE

SIZE

OM004	= 1/8 in.	(4mm)	0.13-9.5 GPH	0.5-36 L/hr
OM006	= 1/4 in.	(6mm)	0.5-27 GPH	2-100 L/hr
OM008	= 3/8 in.	(8mm)	4-145 GPH	15-550 L/hr
OM008	= 1/4 in. high pressure	(6 mm)	4-145 GPH	15-550 L/hr
OM015	= 1/2 in.	(15mm)	0.26-10.6 GPM	1-40 L/min
OM025	= 1 in.	(25mm)	2.6-40 GPM	10-150 L/min
OM040	= 1-1/2 in.	(40mm)	4-66 GPM	15-250 L/min
OM050	= 2 in.	(50mm)	8-120 GPM	30-450 L/min
OM080	= 3 in.	(80mm)	10-200 GPM	35-750 L/min
OM080E	= 3 in.	(80mm)	13-260 GPM	50-1000 L/min
OM100	= 4 in.	(100mm)	20-400 GPM	75-1500 L/min

BODY MATERIAL

A = Aluminum
E = Extended flow aluminum version
P = PPS (73 PSI / 5 Bar)
M = Intermediate pressure aluminum meter (2000 PSI [138 Bar] max.) (OM025 only)
S = 316L Stainless Steel
N = Intermediate press. 316L SS meters (OM004N-025N = 1450 PSI [100 bar] , OM040N-050N = 725 PSI [50 bar])
H = High Pressure 316SS (OM004H-040H = 5800 PSI [400 bar] max. OM050H = 4350 PSI [300 bar])

ROTOR MATERIAL

0 = PPS - PTFE filled (Polyphenylene Sulfide)
1 = Keishi cutting of PPS rotors (for high viscosity liquids)
5 = Stainless steel (standard on OM004 & OM006, optional on other sizes)
7 = Keishi cutting of stainless steel rotors (for high viscosity liquids)

BEARING TYPE

0 = No Bearing - PPS rotor option only
1 = Carbon Ceramic (standard with stainless steel rotors)

O-RING MATERIAL

1 = FKM (Viton™) **(standard for Alum.)** -5° F minimum (-15° C)
2 = EPR (Ethylene Propylene Rubber) - for ketones only
3 = PTFE encapsulated FKM (Viton™) - **(standard for SS)**
4 = Buna-N (Nitrile), -40° F minimum (-40° C)

MAXIMUM TEMPERATURE LIMIT

2 = 250° F (120° C) max. (reduced to 80° C when fitted with integral instruments)
3 = 300° F (150° C) max. (Hall Effect output only, not available with HP meters)
5 = 250° F (120° C) max. (includes integral cooling fin)
8 = 176° F (80° C) max. (applies to Mech. Reg., OM025P & OM008 with PPS rotors)

Continued on next page.

METER NUMBER REFERENCE

PROCESS CONNECTIONS

1 = BSPP (G) female threaded
2 = NPT female threaded
3 = Sanitary Fittings (Sanitary Fittings are 1/2" larger than the meter size)
4 = ANSI-150 RF flanged
5 = ANSI-300 RF flanged
6 = PN16 DIN flanged

CABLE ENTRIES

0 = 3-6mm cable gland or no cable entry [Exclusive to B2 & B3 options (OM004 to OM008 and mechanical display models only)]
1 = M20 x 1.5 mm
2 = 1/2" NPT (OM004-OM008) 1/2" NPT Adaptor used for other sizes

INTEGRAL OPTIONS

___ = Combination Reed Switch and Hall Effect Sensor
G5 = [GG 500] Rate / Total Display with pulse out and optional Ex. Power [Local Display w/ Pulse (60°C)]
G6 = [GX 500] Rate / Total Display w/ 4-20mA out [Local Display w/ 4-20mA (60°C)]
G7 = [GA 500] Loop powered 4-20mA analog output [Local 4-20mA (60°C)]
RS = Reed Switch only - to suit Intrinsically safe installations
E1 = Explosionproof Exd IIB T4/T6 (aluminum & stainless meters) [IECEx & ATEX approved] [120° C]
E2 = Explosionproof Exd I/IIB T4/T6 (stainless meters only) [IECEx & ATEX mines approved] [120° C]
QP = Quadrature pulse (2 NPN phased outputs) [not available with high press models]
Q1 = Explosionproof Exd (with quadrature pulse, but not available with high pressure meter) [IECEx & ATEX approved]
HR = High resolution Hall effect output (Hall Effect only) [OM004:11200ppL], OM006:4200ppL]
H1 = Explosionproof - Exd with HR Hi-res. Hall option [IECEx & ATEX approved]
PF = Pulsating flow option (Hall effect output only) [for injected combustion engines]
P1 = Explosionproof - Exd with PF pulsating flow option [IECEx & ATEX approved]
B2 = BT11 totaliser with pulse output [with scaleable pulse output]
B3 = Intrinsically safe BT11 with pulse output [IECEx & ATEX approved]
R0 = RT12 rate totaliser with all outputs (Alloy housing) [scaled pulse, alarms, 4-20mA]
R2 = RT12 rate totaliser with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA]
R3 = Intrinsically safe RT12 with all outputs (GRN housing) [IECEx & ATEX approved]
R4 = RT40 rate totaliser with backlit large digit LCD [scaleable pulse output, backlight]
E0 = EB10 batch controller [2 stage DC batcher & totaliser]
M3 = 4-digit Mechanical Totalizer - litres [Resolution depends on size]
M4 = 4-digit Mechanical Totalizer - gallon [Resolution depends on size]
[Consult Factory for Availability with High Pressure Meters]

OM004, OM006 & OM008 Oval Gear Meter

OM004 (1/8"), OM006 (1/4") and OM008 (3/8") Oval Gear Meters

The OM Small Capacity Oval Gear Meters have an increased flow range and offers the ability to handle a wide range of fluid viscosities with exceptional levels of repeatability.

OM Electronic Choices:

Options include electronic LCD totalisers, flowrate totalisers and batch controllers (4-20mA, scaled pulse, alarms and batch control)

- G5 LCD 6-digit reset, cumulative totalizer and flow rate, pulse output
- G6 LCD 6-digit reset, cumulative totalizer and flow rate analog (4-20mA) and pulse outputs
- G7 Blind analog (4-20mA) output
- BT11 LCD 5-digit reset, 8-digit cumulative totalizer, pulse output
- RT12 LCD 6-digit reset, cumulative totalizer and flow rate, analog and pulse outputs
- RT40 LCD 6-digit reset, cumulative totalizer and flow rate. Backlit Display, pulse output
- EB LCD 6-digit 2 stage batcher and cumulative totaliser (Available for remote mounting and with I.S. approvals - RT12 and BT11 only)

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

ACCURACY: ±1.0% OF READING

Select Your Body Material:

Aluminum or Stainless Steel

Features and Benefits:

- ✓ High accuracy and repeatability, direct volumetric reading.
- ✓ No requirement for flow conditioning (straight pipe runs).
- ✓ Stainless Steel rotors (Optional PPS Rotor for OM008 meter).
- ✓ Measures high and low viscosity liquids
- ✓ Quadrature pulse output option and bi-directional flow
- ✓ Blind 4-20mA output option
- ✓ Optional Exd I/IIB approval (ATEX, IECEx)
- ✓ PF option available for metering pulsating flows
- ✓ Only two moving parts

SPECIFICATIONS

Model Prefix:	OM004 (1/8")	OM006 (1/4")	OM008 (3/8")
Nominal size (inches):	1/8" (4mm)	1/4" (6mm)	3/8" (8mm)
*Flow range - (GPH):	(0.13-9.5)	(0.5-27)	(4-145)
- (LPH):	(0.5 - 36)	(2 - 100)	(15 - 550)
**Accuracy @ 3cp:	± 1% of reading (accuracy is ± 0.2% of reading with optional RT12 with non-linearity correction)		
Repeatability:	Typically ± 0.03% of reading		
Temperature range:	-4° F - +250° F (-20° C - +120° C), refer factory for lower temperature		
Maximum pressure:	**PSI (bar) Threaded Meter**		
Aluminium meters:	220 (15)		
316 stainless steel:	495 (34)		
Intermediate press. SS meter:	1450 (100)		
High pressure models:	5800 (400)		
Electrical - for pulse meters (see below for optional outputs)			
Output pulse resolution:	**Pulses / gallon (Pulses / litre) - nominal**		
Reed switch:	10600 (2800)	3975 (1050)	1345 (355)
Hall effect:	10600 (2800)	3975 (1050)	2690 (710)
QP-Quadrature Hall option:	10600 (2800)	3975 (1050)	2690 (710)
PF-Pulsating Flow (Hall Effect):	10600 (2800)	3975 (1050)	675 (178)
HR-High resolution Hall effect:	42400 (11200)	15900 (4200)	N/A
Reed switch output:	30Vdc x 200mA max. [maximum thermal shock 18° F (10° C) / minute]		
Hall effect output (NPN):	3 wire open collector, 5-24Vdc max., 20mA max.		
Optional outputs:	4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control		
Physical			
Protection class:	IP66/67 (NEMA4X), optional Exd I / IIB T4/T6, integral ancillaries can be supplied I.S. (intrinsically safe)		
Overall dimensions:	Refer Below		
Recommended filtration:	200 mesh (75 microns)		

* Maximum flow is to be reduced as viscosity increases, see flow de-rating guide. Max. recommanded pressure drop is 100Kpa. (14.5 psi)
**QP and PF Options are not available with High Pressure Meters

OM015, OM025, OM040 & OM050

OM015 (1/2"), OM025 (1"), OM040 (1-1/2") and OM050 (2")

The OM Medium Capacity Oval Gear Meters are great for medium flow ranges and have the ability to handle a wide range of fluid viscosities.

OM Electronic Choices:

Options include electronic LCD totalisers, flowrate totalisers and batch controllers (4-20mA, scaled pulse, alarms and batch control)

- G5 LCD 6-digit reset, cumulative totalizer and flow rate, pulse output
- G6 LCD 6-digit reset, cumulative totalizer and flow rate analog (4-20mA) and pulse outputs
- G7 Blind analog (4-20mA) output
- BT11 LCD 5-digit reset, 8-digit cumulative totalizer, pulse outputs
- RT12 LCD 6-digit reset, cumulative totalizer and flow rate, analog and pulse outputs
- RT40 LCD 6-digit reset, cumulative totalizer and flow rate. Backlit Display, pulse outputs
- EB LCD 6-digit 2 stage batcher and cumulative totaliser (Available for remote mounting and with I.S. approvals - RT12 and BT11 only)

ACCURACY: ±0.5% OF READING

Select Your Body Material:

Aluminum or Stainless Steel

Features and Benefits:

- ✓ High accuracy and repeatability, direct volumetric reading.
- ✓ No requirement for flow conditioning (straight pipe runs).
- ✓ Measures high and low viscosity liquids.
- ✓ Quadrature pulse output option and bi-directional flow
- ✓ Blind 4-20mA output option
- ✓ Optional Exd I/IIB approval (ATEX, IECEx)
- ✓ Only two moving parts

SPECIFICATIONS

Model Prefix	OM015 (1/2")	OM025 (1")	OM040 (1.5")	OM050 (2")
Nominal size (inches):	1/2" (15mm)	1" (25mm)	1.5" (40mm)	2" (50mm)
*Flow range - (GPM):	0.26 - 10.6	2.6 - 40	4.0 - 66	8 - 120
- (LPM):	1 - 40	10 - 150	15 - 250	30 - 450
**Accuracy @ 3cp:	± 0.5% of reading (accuracy is ± 0.2% of reading with optional RT12 with non-linearity correction)			
Repeatability:	Typically ± 0.03% of reading			
Temperature range:	-4°F - +250°F(-20°C - +120°C), refer factory for lower temperature			
Maximum pressure:	**PSI (bar) Threaded Meters**			
Aluminium meters:	990 (68)	990 (68)	435 (30)	285 (20)
Intermediate press. AL	-	2000 (138)	-	-
316 stainless steel:	990 (68)	990 (68)	435 (30)	550 (38)
Intermediate press. SS meter:	1450 (100)	1450 (100)	725 (50)	725 (50)
*** High pressure models:	5800 (400)	5800 (400)	5800 (400)	4350 (300)
Max. pressure Mech. Meter	**PSI (Threaded meters) bar**			
Aluminium meters	**580 (40)**	**580 (40)**	**435 (30)**	**285 (20)**
316 stainless steel	**580 (40)**	**580 (40)**	**435 (30)**	**285 (20)**
Electrical - for pulse meters (see below for optional outputs)				
Output pulse resolution:	Pulses / gallon (Pulses / litre) - nominal			
Reed switch:	318 (84)	102 (27)	53 (14)	25 (6.5)
Hall effect:	636 (168)	405 (107)	212 (56)	99 (26)
QP-Quadrature Hall option:	636 (168)	204 (54)	106 (28)	49 (13)
Reed switch output:	30Vdc x 200mA max. [maximum thermal shock 18° F (10° C) / minute]			
Hall effect output (NPN):	3 wire open collector, 5-24Vdc max., 20mA max.			
Optional outputs:	4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control			
Physical				
Protection class:	IP66/67 (NEMA4X), optional Exd I / IIB T4/T6, integral ancillaries can be supplied I.S. (intrinsically safe)			
Overall dimensions:	Refer Below			
Recommended filtration:	100 mesh (150 microns)			

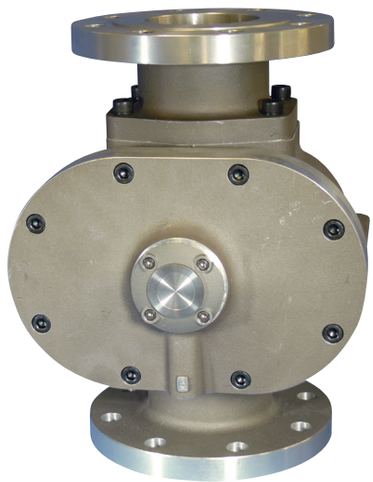
* Maximum flow is to be reduced as viscosity increases, see flow de-rating guide. Max. recommanded pressure drop is 100Kpa. (15 psi)

** Accuracy ± 1% of reading with M - Series mechanical registers and accuracy ± 0.5% of reading with V-series mechanical register.

*** QP and PF Options are not available with High Pressure Meters.

OM080, OM080E & OM100

OM080 (3"), OM080E (3") and OM100 (4") Oval Gear Meters



The OM Large Capacity Oval Gear Meters have fitting sizes of 3 inches and 4 inches and handle volumetric flow measurement of clean liquids used in a wide range of applications.

OM Electronic Choices:

Options include electronic LCD totalisers, flowrate totalisers and batch controllers (4-20mA, scaled pulse, alarms and batch control)

- G5 LCD 6-digit reset, cumulative totalizer and flow rate, pulse output
- G6 LCD 6-digit reset, cumulative totalizer and flow rate analog (4-20mA) and pulse outputs
- G7 Blind analog (4-20mA) output
- BT11 LCD 5-digit reset, 8-digit cumulative totalizer, pulse outputs
- RT12 LCD 6-digit reset, cumulative totalizer and flow rate, analog and pulse outputs
- RT40 LCD 6-digit reset, cumulative totalizer and flow rate. Backlit Display, pulse outputs
- EB LCD 6-digit 2 stage batcher and cumulative totaliser (Available for remote mounting and with I.S. approvals - RT12 and BT11 only)

ACCURACY: ±0.5% OF READING

Select Your Body Material:

Aluminum or Stainless Steel

Features and Benefits:

- ✓ High accuracy and repeatability, direct volumetric reading
- ✓ No requirement for flow conditioning (straight pipe runs)
- ✓ Various rotor material options
- ✓ Measures high and low viscosity liquids
- ✓ Quadrature pulse output option and bi-directional flow
- ✓ Blind 4-20mA output option
- ✓ Optional Exd I/IIB approval (ATEX, IECEx)
- ✓ Only two moving parts

SPECIFICATIONS

Model Prefix:	OM080	OM080E	OM100
Nominal size (inches):	3" (80mm)	3" (80mm) E	4" (100mm)
*Flow range - (GPM):	10 - 200	13 - 260	20 - 400
- (LPM):	35 - 750	50 - 1000	75 - 1500
**Accuracy @ 3cp:	± 0.5% of reading (accuracy is ± 0.2% of reading with optional RT12 with non-linearity correction)		
Repeatability:	Typically ± 0.03% of reading		
Temperature range:	-4° F - +250° F (-20° C - +120° C), refer factory for lower temperature		
Maximum pressure:	**PSI (bar) Threaded Meters**		
Aluminium meters	175 (12)	175 (12)	145 (10)
316 stainless steel	175 (12)	-	-
Electrical - for pulse meters (see below for optional outputs)			
Output pulse resolution:	**Pulses / gallon (Pulses / litre) - nominal**		
Reed switch:	10.0 (2.65)	5.68 (1.55)	4.15 (1.10)
Hall effect:	40.5 (10.70)	22.7 (6.00)	8.30 (4.40)
Quadrature Hall option:	20.0 (5.33)	11.4 (3.00)	8.30 (2.20)
Reed switch output:	30Vdc x 200mA max. [maximum thermal shock 18° F (10° C) / minute]		
Hall effect output (NPN):	3 wire open collector, 5-24Vdc max., 20mA max.		
Optional outputs:	4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control		
Physical			
Protection class:	IP66/67 (NEMA4X), optional Exd I / IIB T4/T6, integral ancillaries can be supplied I.S. (intrinsically safe)		
Overall dimensions:	Refer Below		
Recommended filtration:	40 mesh (350 microns)		

* Maximum flow is to be reduced as viscosity increases, see flow de-rating guide. Max. recommanded pressure drop is 100Kpa. (15 psi)

**Accuracy ± 1% of reading with M - Series mechanical registers and accuracy ± 0.5% of reading with V-series mechanical register.

INSERTION IMPELLER METERS

DP SERIES INSERTION IMPELLER METERS

DP Insertion Impeller Meters are cost effective stainless steel flowmeters for measuring the flow of water, fuel and other low viscosity liquids in pipe sizes 1 ½" to 100" (40 mm to 2500mm). Insertion flow meters are installed with the metering head 1/8th into the pipe resulting in very little pressure drop. DP's do not require external power when used with Flomec rate totalizers, however some options such as high temperature and non-magnetic models require external power.

Applications include:

- HVAC
- Hot & Chilled Water
- Fire Systems
- Water Distribution
- Boiler and Chiller Feed Water
- Industrial Chemicals

SIZE

DP490 = 1-1/2 in. to 36 in. pipes (40-900 mm)
DP525 = 2 to 100 in. pipes (50-2500 mm) suitable for "hot-tap" installations (valve not included)

BODY MATERIALS

S = 316 Stainless Steel

ROTOR & BEARING MATERIALS

1 = PEEK high temperature rotor with stainless steel rotor shaft - 300º F (150º C)
2 = PVDF rotor with 316 stainless steel rotor shaft (standard)

O-RING MATERIALS

1 = FKM (Viton™) **standard**, 5 to 400º F (-15 to +204º C)
2 = EPR (Ethylene Propylene Rubber) - for ketones only
4 = Buna-N (Nitrile), -40 to +250º F (-40 to +125º C)

TEMPERATURE LIMITS

2 = 260º F (125º C) - available with electrical connections 5, 6 & PEEK rotor only
3 = 300º F (150º C) - NPN output only (available with electrical connection 5 & PEEK rotor only)
5 = 212º F (100º C) standard, (185º F [85º C] maximum for non magnetic output type 4)

PROCESS CONNECTIONS

1 = BSPT male thread - 1½" (DP490) or 2" (DP525)
2 = NPT male thread - 1½" (DP490) or 2" (DP525)
3 = 2" BSPT male thread on the DP490
4 = 2" NPT male thread on the DP490

PICK-UP TYPE

1 = NPN open collector & voltage pulse (standard)
2 = NPN open collector(s) only (for temp code 3 or QP option)
3 = Reed switch only (may be used with an I.S. barrier or instrument in hazardous areas)
4 = Non magnetic rotor with NPN output (for liquids with ferrous impurities, needs power)
8 = NPN open collector & Reed switch

ELECTRICAL CONNECTIONS

1 = 10 ft. cable [3 metres] (**standard**)
2 = 33 ft. cable [10 metres]
3 = 66 ft. cable [20 metres]
4 = 164 ft. cable [50 metres] (for longer lengths refer to factory)
5 = Terminal box on stem kit (add this for integral output option FI, 4-20mA output)
6 = Stem kit - 3/8" NPT (price included with integral options B2, B3, R2, R3 & E0)
7 = Stem kit - 1" NPT (for G5, G6 & G7)

Continued on next page.

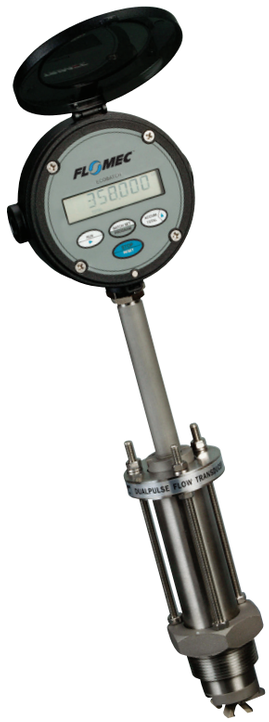
DP490 & DP525 Insertion Impeller Meters

INTEGRAL OPTIONS

___ = Combination Reed Switch and Hall Effect Sensor
G5 = Rate / Total Display w / pulse out and optional Ex. Power
G6 = Rate / Total Display w / 4-20mA out
G7 = Loop powered 4-20mA analog output
QP = Quadrature pulse output
B2 = BT11 dual totaliser (with scaleable pulse output)
B3 = I.S. intrinsically safe BT11 including output [IECEX & ATEX approved]
R0 = RT12 rate totaliser with all outputs (Alloy housing) [scaled pulse, alarms & 4-20 mA]
R2 = RT12 rate totaliser with all outputs [scaled pulse, alarms & 4-20 mA]
R3 = I.S. intrinsically safe RT12 with all outputs [IECEX & ATEX approved]
R4 = RT40 large LCD flow rate totaliser [scaled pulse + backlighting]
E0 = EB10 DC powered two stage batch controller

DP Series Insertion Impeller Meters

DP490 & DP525 are cost effective stainless steel flowmeters for measuring the flow of water, fuels & other low viscosity liquids in pipes sizes 1.5" - 100" (40 - 2500mm).



ACCURACY: ±1.5% OF READING

Body Material:

Stainless Steel

Features and Benefits:

- ✓ IP68 (NEMA6) submersible 316SS construction.
- ✓ Low cost of ownership, wide flow range.
- ✓ Rugged & compact design.
- ✓ Intrinsically safe hazardous area versions.
- ✓ Hot tap installation
- ✓ Integral or remote pre-amplifiers & flow instruments.
- ✓ DP525 version suitable for "hot tap" installation.
- ✓ Quadrature pulse output option and Bi-Directional Flow Measurement
- ✓ Integral 4-20mA output option

SPECIFICATIONS

Model Prefix:	DP490	DP525
Suit pipe sizes:	1.5" - 36" (40 - 900mm)	2"-100" (50 - 2500mm)
Pipe connection:	1.5" or 2" BSPT or NPT male	2" BSPT or NPT male
Flow range:	4 - 99,600 USGM (0.25 - 6300 litres/sec)	6 - 780,000 USGM (0.4 - 49000 litres/sec)
Flow velocity range:	1 - 33 feet/sec (0.3 - 10 meters/sec)	
Linearity:	typically ± 1.5% with well established flow profile	
Temperature range:	-40ºF - +300º F (-40º C - +150º C)	
Maximum pressure:	1160 psig (80 bar)	
Materials	316ss body and rotor shaft, PVDF rotor (PEEK rotor optional)	
Pulse Outputs	For PVDF 212° F (100° C)	
Reed switch:	30Vdc x 200mA (max.), Nom. 0 - 80hz	
Hall effect:	3 wire NPN, 5 - 24 Vdc, 20mA (max.) Nom. 0 - 240hz	
Voltage Pulse	Self generated voltage. Nom. 0 - 240hz	
Non magnetic sensor:	3 wire NPN, 5-24Vdc max., 20mA max. Nom. 0 - 240hz	
Optional outputs:	4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control	
Protection class:	IP68 (NEMA6), integral ancillaries can be supplied I.S. (intrinsically safe)	

* Reed Switch resolution is 1/3 that of the NPN Hall Effect or Voltage pulse outputs.

"Look for the blue label!"

ELECTRONIC CHOICES

FLOMEC® Electronics are available with a variety of features. Choosing the best combination of meter and electronics is easy using the FLOMEC System. The Meter Application Sheet in the Reference Section can serve as a worksheet to guide you in selecting the right product for your application. Your FLOMEC Sales Representative can assist you with this process.

ELECTRONIC Choices

1) What meter do I need in this application?

Meter choice is determined by: Level of accuracy required, flowrate, line size, viscosity, fitting type, pressure rating, temperature, chemical compatibility and etc. The general categories below provide some basic information about meter types.

G Series Meters	G2 Series Meters	OM Series Meters
 Precision Meters	*"Look for the blue label!"*  Wide range of materials and sizes.	 Positive Displacement Meter technology in a variety of materials and sizes.
TM Series Water Meters	**A1 Commercial Grade Meters**	**Economy Meters**
 *"Look for the blue label!"* Water Meters	 *"Look for the silver label!"* Aluminum or Nylon Meters with display in a self-contained unit.	 *"Look for the red label!"* Water, fuel, lube and chemical meters with basic features.

2) What type of output do I need from my electronics?

Output can be simple totals, rate of flow and various types of signal output.
GPI Electronics can be mounted to the meter or to a remote location and come with or without display.

Local Display	GA Series Electronics	GG Series Electronics	GX Series Electronics	SC Series Electronics
09 Electronics	4-20 mA Output without Display	Pulse Output with Display	4-20 mA Output with Display	Scaled Pulse Output
RT40	**RT12**	**EB10**	**E Series (E110 / E018)**	**F Series**
Total & Rate Display	4-20 mA & Pulse Output with Display	Batch Controller	Total & Rate 4-20mA & Pulse Output Explosion Proof	Total & Rate 4-20mA & Pulse Output Alarms

3) How do I place an order?

Are you buying your GPI Electronics as part of a **system** in combination with a meter or **stand alone** (as a replacement for an existing electronics)? Model numbers will vary depending on how the electronics unit is ordered.

Contact GPI Customer Support at: **888-996-3837** or **316-686-7361** for assistance.

Outside of the Americas, contact GPI Australia at: **+61 2 9540 4433** for assistance.

Electronic Choice **LOCAL DISPLAY**

Local Display for Turbine Meter

"Look for the blue label!"

An excellent choice for most FLOMEC® Meters. Commonly used features are preprogrammed in the Computer Display. End-users can enable additional features by using a password available from the factory or on the GPI website. The 09 configuration provides a high degree of customization, matching customers' exact needs.

09 COMPUTER – SPECIFICATIONS

Std. Factory Configuration:	2 Totals (1 Resettable, 1 Cumulative);
	Factory Calibration in gallons and litres;
	User Calibration and Rate of Flow Indication.
Computer Electronics:	09 Electronics can be used on G, G2, TM, A1,
	OM and DP Series Meters.
Totalizing Registers:	0 to 3 available
K-Factor Limits:	Min: .01 pulses/unit Max: 999,999 pulses/unit
Field Calibration:	Field calibrate by user. Standard Method:
	Correction Factor. Six adjustable digits. Can be
	reconfigured to K-factor entry.
Readout Totals:	LCD with floating decimal
	Minimum Display = 0.01 units
	Maximum Display = 999,999 x100 units (6 digits)
Input Pulse Rate:	Minimum (Pulse-in Input) = DC (0 Hz)
	Minimum (Coil Input) = Approximately 10 Hz
	Maximum = Approximately 1,000 Hz
Turbine Display:	
Internal Power Supply:	2 Lithium batteries at 3 volts each
Lithium Battery Life:	5 Years
Optional Power Supply:	7 to 30 VDC
Oval Gear Display:	
Internal Power Supply:	9-volt battery
Optional Power Supply:	10 to 18 VDC
Operating Temperature:	0° F to +140° F (-18° C to +60° C)
Storage Temperature:	-40° F to +158° F (-40° C to +70° C)

APPROVALS (A1 & G2 MODELS ONLY)

FM APPROVED · FM C US APPROVED · CE · ATEX · IECEx

Using a password-protected configuration process you can enable additional features. GPI Customer Service can provide the password and instructions to unlock and reset configuration settings. This information is also available on the GPI website.

User Configuration features include:

- Totalizers/Modes Enabled (Cumulative Total, Batch 2 Total, Flowrate Mode)
- Flowrate Timebase (Units per Minutes, Hours and Days)
- Factory Calibration Curve Units Enabled (Gallons, Imperial Gallons, Litres, Quarts, Ounces, Cubic Feet, Cubic Centimeters, Cubic Meters or Barrels (42 gal.)
- Dispense/Display or K-Factor Entry Calibration

Features and Benefits:

- ✓ 2 Totals (Batch - Resettable, Cumulative - Not Resettable).
- ✓ Flowrate display updates every 5 seconds, readout is in units/minute.
- ✓ Factory Calibration in gallons and litres is standard. Can be field calibrated to adjust to various fluid thickness.
- ✓ Correction calibration lets end user calibrate by ± percent off.
- ✓ Small, compact and totally self contained with an internal power supply.
- ✓ Non-volatile totals means amounts are retained when batteries are replaced or power is lost.
- ✓ Lithium battery life: 5 years.

GG500, GG510, G5 & 5 SERIES

Display With Pulse Output

GG500
Remote Mount

GG510
Local Mount

The GG500 is a remote mount Pulse-Out Transmitter with battery powered display.

Choose the GG510 when a local mount is needed on the G2 series.

Choose the G5 when a local mount is needed on the OM series.

Choose the 5 when a local mount is needed on the G series.

GG500/GG510 – SPECIFICATIONS

Accuracy:	± 0.1% of reading
Output Options:	
Primary Output:	Open Collector (NPN)
Pulse-Out:	
Max. "OFF" Voltage:	60 V
Max. "ON" Current:	200 mA
Max. "ON" Voltage Drop:	< 0.5 V @ 200 mA
Electrical:	
Strain Relief:	Hubble PG7
Strain Relief Thread:	Female 1/2-20 UNF-2B
Cable:	*Remote:* Belden 9363 (500 Series only)
	Local: No cable provided
Cable Length:	20 ft. (6 m) provided (500 Series only)
Power Supply:	9-volt battery or externally powered
Voltage Supply (Min.):	7 VDC
Voltage Supply (Max.):	30 VDC
Input Options:	Hall Effect, Reed Switch, Open Collector or
	Low Level Sine Wave
Remote Mounting:	Pipe or wall
Operating Temperature:	+14° F to +140° F (-10° C to +60° C)
Frequency Input:	
Low Level Coil (LLC):	0 - 1000 Hz
High Level Low Freq.:	0 - 150 Hz
High Level High Freq.:	0 - 1000 Hz
Enclosure Rating:	NEMA 4X / IP55
Shipping Weight:	*Remote:* 2.0 lbs. (.90 kg)
	Local: 1.0 lbs. (.45 kg)
Calibratable:	K-factor Entry

ACCURACY: ±0.1% READING

Features and Benefits:

- ✓ Provides communication with process control equipment.
- ✓ Works with G Series, G2 Turbine Meters, OM and DP Meters.
- ✓ 2 Totals (Batch = Resettable, Cumulative = Non-Resettable); Rate of Flow. Factory calibrated in gallons and litres. Field calibratable. Allows user calibration. Includes non-volatile totals.
- ✓ Industry Standard Output: Unscaled Pulse.
- ✓ Easily mounted on pipe or wall.

Display With 4-20 mA Output

GX500
Remote Mount

GX510
Local Mount

The GX500 is a remote mount 4-20 mA Output Transmitter with display.

Choose the GX510 when a local mount is needed on the G2 series.

Choose the G6 when a local mount is needed on the OM series.

Choose the 6 when a local mount is needed on the G series.

GX500/GX510 – SPECIFICATIONS

Accuracy:	± 0.1% of reading
Output Options:	
Primary Output:	Loop (4-20 mA or 0-20 mA)
Minimum:	1.5 mA
Maximum:	25 mA
Auxiliary Outputs 0-5 V:	Single Ended
Minimum:	0.1 V
Maximum:	4.9 V
Pulse-Out:	
Max. "OFF" Voltage:	60 V
Max. "ON" Current:	200 mA
Max. "ON" Voltage Drop:	< 0.5 V @ 200 mA
Electrical:	
Strain Relief:	Hubble PG7
Strain Relief Thread:	Female 1/2-20 UNF-2B
Cable:	*Remote:* Belden 9363 (500 Series only)
	Local: No cable provided
Cable Length:	20 ft. (6 m) provided (500 Series only)
Power Supply:	2-wire, loop powered
Voltage Supply (Min.):	8.5 VDC
Voltage Supply (Max.):	35 VDC
Input Options:	Hall Effect, Reed Switch, Open Collector or
	Low Level Sine Wave
Remote Mounting:	Pipe or wall
Operating Temperature:	+32° F to +140° F (0° C to +60° C)
Frequency Input:	
Low Level Coil (LLC):	0.25 - 1000 Hz
High Level Low Freq.:	0.25 - 150 Hz
High Level High Freq.:	0.25 - 1000 Hz
Optically Isolated HLLF:	w/2500 V optical isolation
Optically Isolated HLHF:	w/2500 V optical isolation
Enclosure Rating:	NEMA 4X / IP55
Shipping Weight:	*Remote:* 2.0 lbs. (.90 kg)*Local:* 1.1 lbs. (.5 kg)
Calibratable:	K-factor Entry

ACCURACY: ±0.1% READING

Features and Benefits:

- ✓ Provides communication with process control equipment.
- ✓ Works with G Series, G2 Turbine Meters, OM and DP Meters.
- ✓ 2 Totals (Batch = Resettable, Cumulative = Non-Resettable); Rate of Flow. Factory calibrated in gallons and litres. Field calibratable. Allows user calibration. Includes non-volatile totals.
- ✓ Now available with Lockout feature.
- ✓ Microprocessor-based electronics have extremely low power requirements.
- ✓ Easy to set 4-20 mA endpoints under actual flow conditions.
- ✓ A signal conditioner with industry standard current loop output.
- ✓ Easily mounted on pipe or wall.

GA500, GA510, G7 & 7 SERIES

4-20 mA Output

GA500
Remote Mount

GA510
Local Mount

The GA500 is a remote mount 4-20 mA Output Transmitter without display.

Choose the GA510 when a local mount is needed on the G2 series.

Choose the G7 when a local mount is needed on the OM series.

Choose the 7 when a local mount is needed on the G series.

GA500/GA510 – SPECIFICATIONS

Accuracy:	± 0.1% of reading
Output Options:	
Primary Output:	Loop (4-20 mA or 0-20 mA)
Minimum:	1.5 mA
Maximum:	25 mA
Auxiliary Outputs 0-5 V:	Single Ended
Minimum:	0.1 V
Maximum:	4.9 V
Pulse-Out:	
Max. "OFF" Voltage:	60 V
Max. "ON" Current:	200 mA
Max. "ON" Voltage Drop:	< 0.5 V @ 200 mA
Electrical:	
Strain Relief:	Hubble PG7
Strain Relief Thread:	Female 1/2-20 UNF-2B
Cable:	*Remote:* Belden 9363 (500 Series only)
	Local: No cable provided
Cable Length:	20 ft. (6 m) provided (500 Series only)
Power Supply:	2-wire, loop powered
Voltage Supply (Min.):	8.5 VDC
Voltage Supply (Max.):	35 VDC
Input Options:	Hall Effect, Reed Switch, Open Collector or
	Low Level Sine Wave
Mounting:	Pipe or wall
Operating Temperature:	+32° F to +140° F (0° C to +60° C)
Frequency Input:	
Low Level Coil (LLC):	0.25 - 1000 Hz
High Level Low Freq.:	0.25 - 150 Hz
High Level High Freq.:	0.25 - 1000 Hz
Optically Isolated HLLF:	w/2500 V optical isolation
Optically Isolated HLHF:	w/2500 V optical isolation
Enclosure Rating:	NEMA 4X / IP55
Shipping Weight:	*Remote:* 2.0 lbs. (.90 kg)
	Local: 1.1 lbs. (.5 kg)

ACCURACY: ±0.1% READING

Features and Benefits:

- ✓ Provides communication with process control equipment.
- ✓ Works with G Series, G2 Turbine Meters, OM and DP Meters.
- ✓ Now available with Lockout feature.
- ✓ Microprocessor-based electronics have extremely low power requirements.
- ✓ Easy to set 4-20 mA endpoints under actual flow conditions.
- ✓ A signal conditioner with industry standard current loop output.
- ✓ Easily mounted on pipe or wall.

Scaled Pulse Output

SC500
Remote Mount

SC510
Local Mount

The FLOMEC® Scaled Pulse Module is a switch-programmable multi-stage counter/divider with multiple inputs. The module provides selectable K-factor to convert input frequency to scaled pulse output. The SC500 connects via a 20 foot input cable. The SC510 connects directly to the 1 inch MNPT conduit connector.

Choose the 8 when a local mount is needed on the G series.

SC500/SC510 – SPECIFICATIONS

Accuracy:	± 0.1% of reading
Power Source:	DC powered 5 to 30 VDC
Input Signal:	Hall Effect, Reed Switch or Open Collector (NPN) or Sine Wave
Output Signal:	Open Collector (NPN)
Frequency Range:	Coil, HF = 0-1500 Hz; LF = 0-150 Hz
Operating Temperature:	-40° F to +185° F (-40° C to +85° C)
Cable:	*Remote:* 20 ft. (6 m), 3-conductor, tinned drain wire, 22 AWG, PVC jacket .212 dia. Ref. Belden 9363. *Local:* No cable provided
Mechanical Connections:	*Remote:* Wall or pipe mountable with standard U-bolts. *Local:* Unit is mounted to meter body, 1" NPT.
Electrical Connections:	*Remote:* Two strain relief ports *Local:* One strain relief port; one threaded plug

ACCURACY: ±0.1% READING

Features and Benefits:

- ✓ Converts input frequency to scaled pulse output.
- ✓ Provides communication with process control equipment.
- ✓ Works with G Series, G2 and A1 Turbine Meters, OM and DP Meters.
- ✓ Remote model mounts on pipe or wall.

E Series: E018

Explosion Proof Flowrate Monitor / Totalizer with Linearization, High/Low Alarms, 4-20 mA and Pulse Outputs

The E108 4-20 mA Transmitter is a loop powered transmitter with simultaneous Rate & Total indicator. The E118 features an explosion proof enclosure for hazardous location use. It also features 16 point linearization.

Features and Benefits:

- ✓ Magnetic Pickup Input, Contact Closure Input, DC Pulse Input.
- ✓ 16 point linearization.

E018 - SPECIFICATIONS	
Power Supply:	16-30 VDC
Operating Temperature:	-40° F to +158° F (-40° C to +70° C)
Output:	4-20 mA, (Isolated from Ground), Pulse, Alarms
Display:	7-digit Rate; 11-digit Totalizer

ENCLOSURE APPROVALS

ATEX FM APPROVED* IECEx CSA* CE IP67 NEMA 4X

Communication

Function: All process data and settings can be read and modified through the communication link.

Protocol: Modbus RTU, HART communication protocol

* Pending

E Series: E110

Explosion Proof Flowrate Indicator / Totalizer with 4-20 mA and Pulse Outputs

The E110 is a battery powered Totalizer & Rate Indicator. Both Local and Remote models are available The E110 features an explosion proof enclosure for hazardous location use.

Features and Benefits:

- ✓ Magnetic Pickup Input, Contact Closure Input, DC Pulse Input.
- ✓ 16 point linearization.

E110 - SPECIFICATIONS	
Power Supply:	16-30 VDC
Operating Temperature:	-40° F to +158° F (-40° C to +70° C)
Output:	4-20 mA (Isolated), Pulse
Display:	7-digit Rate; 11-digit Totalizer

ENCLOSURE APPROVALS

ATEX FM APPROVED* IECEx CSA* CE NEMA 4X

Communication

Function: All process data and settings can be read and modified through the communication link.

Protocol: Modbus RTU.

Interface: RS232 / RS485 2-wire or 4-wire / TTL.

* Pending

F Series: F118

Field Mount Flowrate Monitor / Totalizer with Linearization, High/Low Alarms, Analog and Pulse Outputs

The F018 4-20 mA Transmitter is a loop powered transmitter with simultaneous Rate & Total indicator. The F018 features a NEMA 4X field enclosure. It also features 10 point linearization. Intrinsically safe availability.

The F018 is a versatile flow rate indicator and totalizer with the ability to precisely linearize the flowmeter signal. In addition to the average K-Factor or Span, ten linearization points can be entered with their frequencies or values. The unit will interpolate between these points, greatly enhancing accuracy in any flow range, even for very low frequency applications. Moreover, a continuous flow rate monitoring feature is available with high and low flow rate alarm values and up to three alarm outputs. Flow rate and total are transmitted with an analog and scaled pulse output.

The display shows flow rate, total, accumulated total, alarm values, alarm messages and status. On-screen engineering units are easily configured from a comprehensive selection.

Features and Benefits:

- ✓ Magnetic Pickup Input, Contact Closure Input, DC Pulse Input.
- ✓ 10 point linearization.

ENCLOSURE APPROVALS

IP66 IP67 NEMA 4X IEC IECEx ATEX

Communication

Function: All process data and settings can be read and modified through the communication link.

Protocol: Modbus RTU

F118 – SPECIFICATIONS

Output	4-20mA, Isolated from Ground, Scaled Pulse, Alarms
Display	
Type	High intensity reflective numeric and alphanumeric LCD, UV-resistant.
Dimensions	90 x 40mm (3.5" x 1.6").
Digits	Seven 17mm (0.67") and eleven 8mm (0.31") digits. Various symbols and measuring units.
Refresh rate	User definable: fast, 1sec , 3sec, 15sec, 30sec, off.
Option	Transflective LCD with bi-color LED-backlight; green / amber. Intensitiy and color selected trough the keyboard. Good readings in full sunlight and darkness. Also available Intrinsically Safe.
Operating temperature	
Standard unit	-40°C to +80°C (-40°F to +176°F).
Intrinsically Safe	-40°C to +70°C (-40°F to +158°F).
Power requirements options	
	Long life Lithium battery - life-time depends upon settings and configuration - up to 5 years.
	Intrinsically Safe long life lithium battery - life-time depends upon settings and configuration - up to 5 years.
	16 - 30V DC. Power consumption max. 1 Watt.
	8 - 30V DC. Power consumption max. 0.3 Watt.
	20 - 30V DC. Power consumption max. 1 Watt.
Note	For Intrinsically Safe applications, consult the safety values in the certificate.
Terminal connections	
Type	Removable plug-in terminal strip. Wire max. 1.5mm^2 and 2.5mm^2
Data protection	
Type	EEPROM backup of all settings. Backup of running totals every minute. Data retention at least 10 years.
Pass-code	Configuration settings can be pass-code protected.

RT40

Battery Powered Flowrate Totalizer

FLOMEC® LCD display RT40 battery powered flowrate totalizer is specifically designed for computing and displaying flowrates and totals from flowmeters with pulse, sine wave or frequency outputs.

The instrument displays resettable (batch) total, cumulative total and instantaneous flowrate in engineering units as programmed by the user.

MODEL CODE

RT40 = Flowrate totalizer with backlit large digit LCD, scalable pulse output

ELECTRICAL ACCESS

1 = M16 x 1.5mm female threaded conduit entry ports

FLOW INPUT TYPE

D = Digital (pulse or frequency)

POWER SUPPLY

0 = Self-powered (battery) or regulated 8-24 VDC

HOUSING TYPE

FA = Universal mount (field or panel) - Aluminum Alloy Housing

MA = Integral meter mount - Aluminum Alloy Housing (Only order MA when retro fitting instrument to OM Series pulse meter)

MECHANICAL OPTIONS

P = Facia protector - 3mm clear polycarbonate protection plate

RT40 + 1 + D + 0 + FA + P ← (Sample Model Number)

Features and Benefits:

- ✓ Battery or external powered, 6-digit large LCD total & 8-digit cumulative totalizer, 5-digit rate display
- ✓ Robust IP66/67~NEMA 4X Aluminium field & panel mountable housing
- ✓ LCD Backlighting standard
- ✓ Scalable universal pulse or frequency inputs
- ✓ Scaled pulse output
- ✓ PIN protected programming
- ✓ Simple flow chart touch key programming
- ✓ Reverse polarity protection
- ✓ Long battery life
- ✓ Heavy duty facia protector shield
- ✓ Relay board with SPDT outputs
- ✓ Flowmeter & pipe mount kits

RT40 - SPECIFICATIONS

Displays:	Large backlit 8-digit numeric display with LCD character, 8-digit reset cumulative totalizer, 5-digit rate display
Memory:	All programmed and accumulative data is stored permanently in non-volatile memory
Temperature Range:	-4° F to +176° F (-20° C to +80° C)
Signal Input:	Pulse/frequency Input with reed switch Hall Effect, Voltage, Current & Coil
Pulse Output:	NPN transistor, Scalable (20hz, 100mA max.)
Battery Power:	Life expectancy 5 years (Unit draws about 70µA under battery). *Battery life reduces when rate is displayed and power is not connected.*
External Power:	Regulated 8-24VDC x 50mA min (Reverse polarity protected)
Configuring:	PIN protected data entry
Protection Class:	IP66/67 (NEMA 4X) 3 x M16 x 1.5 female conduit entries
K-factor Range:	Scale factor i.g. pulses/litre, gallon, etc. programmable range 0.001 - 999,999.999
Engineering Units:	Selectable Ltr, gal, m^3, kgs, lbs (total)./sec,/min./hr or day (rate)

RT12
Self-Powered Flowrate Totalizer

FLOMEC® LCD display RT12 is a fully programmable self-powered flowrate totalizer specifically designed for computing and displaying flowrates and totals from flowmeters with pulse, sine wave or frequency outputs.

The instrument displays resettable (batch) total, cumulative total and instantaneous flowrate in engineering units as programmed by the user.

MODEL CODE

RT12 = Flow rate totaliser with 4~20mA ,scalable pulse & alarm outputs, dual flow inputs

ELECTRICAL ACCESS

1 = M20 x 1.5mm (M16 x 1.5 for Aluminium housing) female threaded conduit entry ports
2 = 1/2" NPT female threaded conduit entry ports (Not available on aluminium housing)

FLOW INPUT TYPE

D = Digital (pulse or frequency)

POWER SUPPLY

0 = Self-powered (battery) or regulated 8-24 VDC

HOUSING TYPE

FM = Universal mount (field or panel) GRN housing
MM= Integral meter mount - GRN housing*
FA = Universal mount (field or panel) aluminum alloy
MA= Integral meter mount - aluminum alloy*
**Only order MA/MM when retro fitting instrument to OM Series pulse meter*

ELECTRICAL OPTIONS

R = Control Output relay board interface with two SPDT relays
I = I.S. Intrinsically safe to Exia IIB T4 - IECEX & ATEX approved

MECHANICAL OPTIONS

P = Facia protector - 3mm clear polycarbonate protection plate (FA, MA only)

RT12 + 1 + D + 0 + MA + I + P ← (Sample Model Number)

Features and Benefits:

- ✓ Self or external powered, 8-digit LCD total & 8-digit cumulative totalizer, 5-digit rate display
- ✓ Robust IP66/67~NEMA 4X universal mount
- ✓ Aluminium/GRN field & panel mountable housing
- ✓ Scaled pulse, 4-20mA (Loop Powered) Output, Dual flow inputs (A+B, A-B, A÷B), multi point linearization of flow input or frequency inputs
- ✓ High & low flow alarms & Low Frequency cutoff
- ✓ PIN protected programming
- ✓ Simple flow chart touch key programming
- ✓ Reverse polarity protection
- ✓ Non volatile memory, Long battery life
- ✓ Relay board with SPDT outputs (Optional)
- ✓ Optional Intrinsically safe version to Exia IIB T4 version (IECEx & ATEX approved) FM, MM only

RT12 - SPECIFICATIONS

Displays:	Large backlit 8-digit numeric display with LCD character, 8-digit reset cumulative totalizer, 5-digit rate display
Memory:	All programmed and accumulative data is stored permanently in non-volatile memory
Temperature Range:	-4° F to +176° F (-20° C to +80° C)
Signal Input:	Pulse/frequency Input with reed switch Hall Effect, Voltage, Current & Coil, dual inputs (A+B, A-B, A÷B)
Pulse Output:	NPN transistor, Scalable (20hz, 100mA max.)
Rate Outputs:	4-20mA into 750 ohms@24Vdc, NPN/PNP solid state & relay options
Linearisation:	10-point correction
Intrinsic Safe Option:	Exia IIB T4 (IECEX / ATEX)
Battery Power:	Life expectancy 5 years (Unit draws about 70µA under battery). *Battery life reduces when rate is displayed and power is not connected.*
External Power:	Regulated 8-24VDC x 50mA min (Reverse polarity protected)
Configuring:	PIN protected data entry
Protection Class:	IP66/67 (NEMA 4X) 3 x M16 x 1.5 female conduit entries
K-factor Range:	Scale factor i.g. pulses/litre, gallon, etc. programmable range 0.001 - 999,999.999
Engineering Units:	Selectable Ltr, gal, m^3, kgs, lbs (total)./sec,/min./hr or day (rate)

EB10 Series Batch Controller

The EB10 Ecobatch is a fully programmable high speed batch controller specifically designed to operate with common pulse producing flowmeters such as positive displacement, turbine, mass, vortex or magnetic style.

The instrument displays batch value, batch progress & cumulative total in engineering units as programmed by the user, it also logs the total number of batches performed and total volume dispensed.

EB10 scrolls messages to prompt the user at each stage of operation. Batch limiting and no-flow detection are “safeguards” against erroneously high batch entries, loss of the flow input signal or control valve or pump failure.

Features and Benefits:

- ✓ Large 8 digit batch & cumulative total LCD
- ✓ Robust IP66/67 universal mount or DIN panel mount version
- ✓ Simple programming
- ✓ PIN protected programming
- ✓ Scaleable flow inputs
- ✓ Two stage control
- ✓ Automatic overrun compensation
- ✓ Missing pulse (no flow) alarm
- ✓ Maximum batch size limiting
- ✓ Non volatile memory
- ✓ Multiple batcher interlock function
- ✓ Remote Run, Stop, batch set, etc

MODEL CODE

EB10 = Single & two stage high speed batch controller (cumulative & batch totals)

INPUT TYPE

D = Digital (pulse or frequency)

POWER SUPPLY

0 = 12-24 VDC, 50mA (FM, MM, FA, MA only)
1 = 95-135Vac DIN only
2 = 190-260Vac DIN only

HOUSING TYPE

FM = Universal mount (field or panel) GRN housing
MM= Integral meter mount - GRN housing*
FA = Universal mount (field, surface, pipe, wall, stem or panel mount)
MA = Integral meter mount
PM = DIN panel mount 91 x 91mm (3.6 x 3.6”) cut out
FE = DIN mount field enclosure IP66 (NEMA 4x)

EB10 + D + 0 + FA ← (Sample Model Number)

EB10 - SPECIFICATIONS

Liquid crystal display (LCD):	9mm high alpha numeric characters + subscripts
Batch & Accumulated Totals:	8-digit, programmable to 3 decimal places
Engineering Units Displayed:	Litres, gallons, m3, lbs, kgs or nil eng. units displayed
Input Types (Pulse & Frequency):	Reed switch, open collector, coil (15mV P-P min.), current, voltage, namur & other proximities. Max. frequency 10Khz
Input Scaling Range:	0.001-9,999,999.999 with 3 floating decimal points
Control Outputs:	(Field Mount) Two 1A NPN open collectors, 24Vdc max.
	(Panel Mount) Two SPDT 5A relays (with DIN versions)
Alarm output (No flow alarm):	1A open collector (NPN/PNP selectable), 24Vdc max.
Operating Temperature:	-10 to +80°C (14 to 176°F), refer to factory for higher/lower temp.
Power Requirements:	12-24Vdc, 50mA, 95-260Vac (DIN version)
Status Interlocks:	Batch status output, batch inhibit input, network looping
Enclosures:	IP66/67 (NEMA 4X) GRN field mount or DIN panel mount
Mounting:	Meter mount, wall, surface, pipe or panel mount
Batching Systems Example	Ecobatch with flowmeter & control valve eg: UM020 system 1-70 L/min, 10 bar, 90°C (0.3-18 Usgpm, 145psi, 195°F)

Need help choosing the right meter? Complete this form and submit to GPI to determine the best product for your application.

Fax: 316-686-6746
Phone: 316-686-7361
Toll Free: 888-996-3837

Company:_____ Contact: _____

Address: _____ Phone: _____

City/State/Zip: _____ Fax: _____

Describe Metering Problem: _____

_____

Fluid: _____ Viscosity:_____ @_____°F

Specific Gravity: _____ Density: _____

Particulate: No_____ Yes _____ Size_____

Air Elimination Req'd: No_____ Yes _____

Pulsating Flow: No_____ Yes _____

Flowrate (GPM): Min._____ Nom. _____ Max._____

Velocity _____

Pipe Material* _____ % of Solids* _____

Pipe O.D.* _____ % of Air*_____

Pipe Wall Thickness* _____

Nominal Pipe Size* _____ Schedule*_____

Temperature (° F): Min._____ Nom. _____ Max. ____

Pressure (psiG): Min._____ Nom. _____ Max. ____

Pressure Drop: Max. ____

Req'd Accuracy: _____ % of reading Repeatability:_____

SKETCH BASIC APPLICATION

Approved Wetted Materials: _____

Unusual Fluid Properties:_____

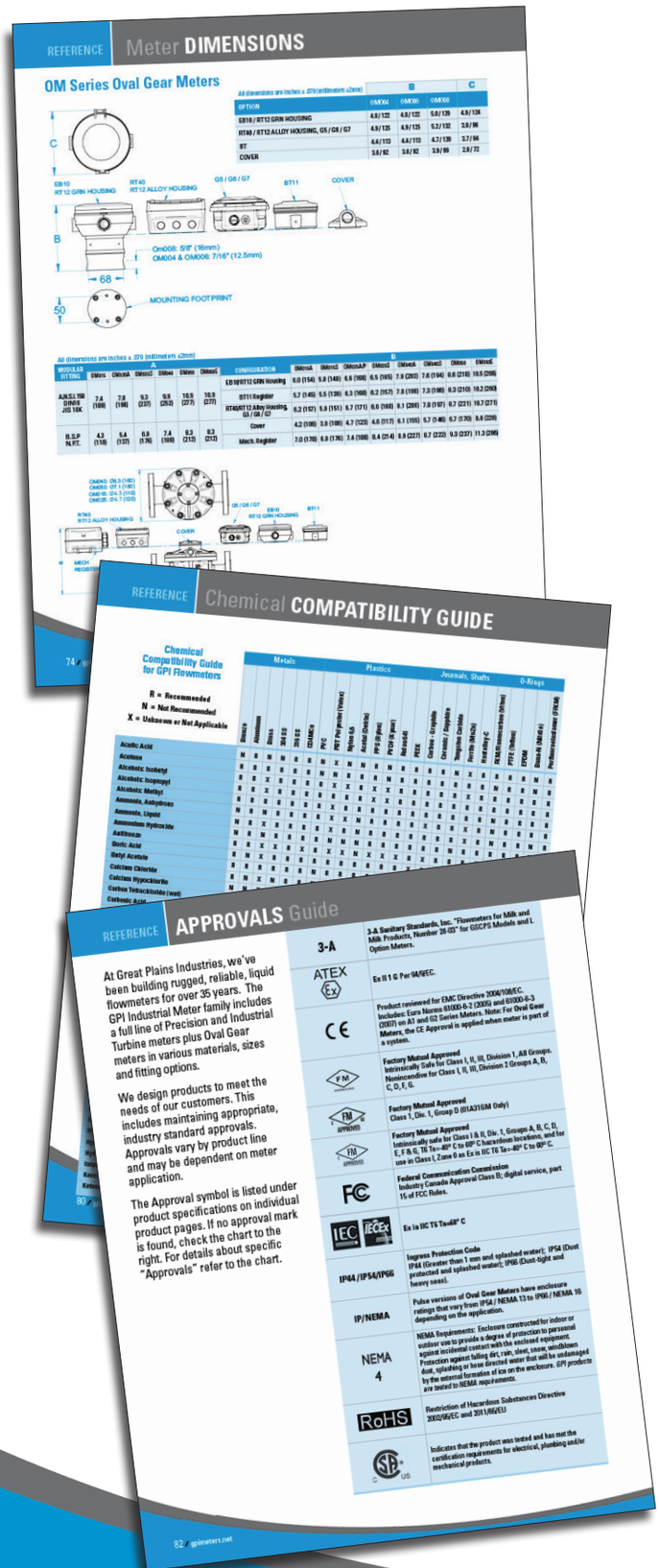
Display: No_____ Yes _____ Local____ Remote_____ Both_____

Output: No_____ Yes _____ Pulse____ Current_____

Approvals Req'd: No_____ Yes _____ List _____

*For Ultrasonic Flowmeters

REFERENCE Materials



REFERENCE MATERIALS

This section includes general reference materials including Meter Dimensions and Chemical Compatibility Charts. Use the "Meter Application Guide" to help select the best GPI Meter for your application. Feel free to contact GPI for assistance when determining the correct Meter and Electronics.

Chart of Approximate Viscosities of Common Liquids

Liquid	Viscosity in Centipoise @ 70°F	S S U Approximate
Sulfuric Acid	0.2	
Methyl Ethyl Ketone	0.4	
Water	1	
Milk	3	
Oil – Crude	15	80
Ethylene Glycol	16	80
Oil – Auto SAE 10	65	310
Oil – Corn	72	350
Oil – Auto SAE 20	125	585
Oil – Auto SAE 30	200	980
Varnish – Spar	420	2,050
Oil – Auto SAE 60	1,000	4,600
Honey	3,000	14,500
Ink	45,000	
Vaseline Petroleum Jelly	64,000	
Corn Syrup	110,000	

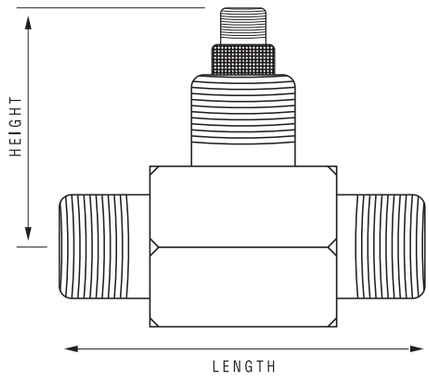
Component Materials

GPI offers Component Materials to assist with chemical compatibility. In some cases, trade names may be more common than the generic name. The cross reference chart here provides the generic material name and the corresponding trade name.

Generic Material Name	Trade Name
Acetal	Celcon or Delrin
Buna-N, NBR or Nitrile	Chemivic or Krynac
EPDM	Epcar
FKM or fluorocarbon	Fluorel or Viton
Nylon or polyamide	Zytel
PBT polyester	Valox
PEEK	Victrex
Perfluoroelastomer	Kalrez
Perfluoroelastomer	Chemraz
PET polyester	Rynite
Polyester film	Mylar
PPS	Ryton
PTFE	Teflon
PVDF	Kynar

Meter DIMENSIONS

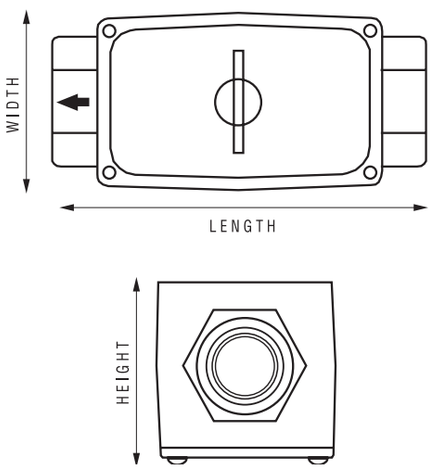
G Series Precision Meters



	NPT		Sanitary Clamp		Flanged*	
Size	**Length** inches (mm)	**Height** inches (mm)	**Length** inches (mm)	**Height** inches (mm)	**Length** 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)

** Height on flange meters, measures from center line to top of flange.*

G2 Series Industrial Grade Meters



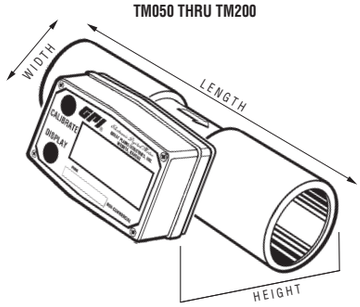
Model	Length inches (mm)	Height inches (mm)	Width inches (mm)	Model	Length inches (mm)	Height inches (mm)	Width inches (mm)
A05	4.2 (107)	1.8 (46)	2.0 (51)	H20	6.3 (160)	3.2 (81)	3.3 (84)
A07	4.3 (109)	2.0 (51)	2.0 (51)	P05	7.3 (185)	3.2 (81)	2.1 (53)
A10	4.5 (114)	2.2 (56)	2.0 (51)	P10	8.1 (206)	3.3 (84)	2.8 (71)
A15	5.3 (135)	2.8 (71)	2.7 (68)	S05	4.2 (107)	1.8 (46)	2.0 (51)
A20	6.3 (160)	3.2 (81)	3.3 (84)	S07	4.3 (109)	2.0 (51)	2.0 (51)
B05	4.2 (107)	1.8 (46)	2.0 (51)	S10	4.5 (114)	2.2 (56)	2.0 (51)
B07	4.3 (109)	2.0 (51)	2.0 (51)	S15	5.3 (135)	2.8 (71)	2.7 (68)
B10	4.5 (114)	2.2 (56)	2.0 (51)	S20	6.3 (160)	3.2 (81)	3.3 (84)
B15	5.3 (135)	2.8 (71)	2.7 (68)	S10F	6.75 (171)	4.25 (108)	4.25 (108)
B20	6.3 (160)	3.2 (81)	3.3 (84)	S15F	8.0 (203)	5.0 (127)	5.0 (127)
C05	7.3 (185)	3.2 (81)	2.1 (53)	S20F	9.50 (241)	6.0 (152)	6.0 (152)
C10	8.1 (206)	3.3 (84)	2.8 (71)	S05T	5.0 (127)	2.0 (51)	1.8 (46)
H05	4.2 (107)	1.8 (46)	2.0 (51)	S07T	5.0 (127)	2.0 (51)	2.0 (51)
H07	4.3 (109)	2.0 (51)	2.0 (51)	S10T	5.5 (140)	2.0 (51)	2.2 (56)
H10	4.5 (114)	2.2 (56)	2.0 (51)	S15T	6.5 (165)	2.7 (68)	2.8 (71)
H15	5.3 (135)	2.8 (71)	2.7 (68)	S20T	7.0 (178)	3.3 (84)	3.2 (81)

NOTE: 09 Display adds 1.1 in. (28 mm) to height.

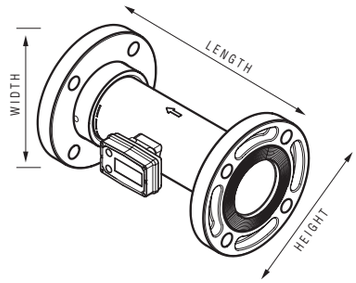
NOTE: Dimensions are for reference only and may vary by model.

TM Meters

TM050 THRU TM200



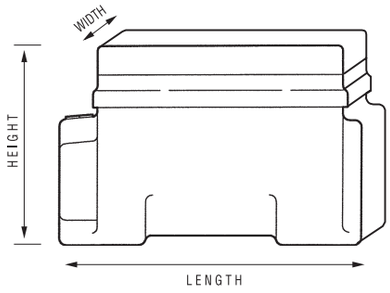
TM300 & TM400



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 ± 1/2".
•• Computer display adds 1.1 in. (28 mm) to height.

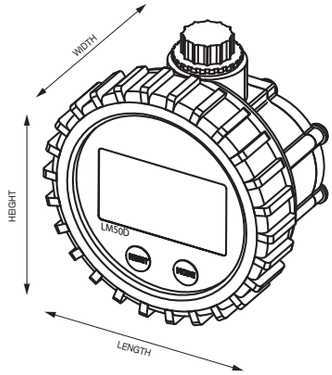
A1 Series Meters



Model	Length inches (mm)	Height inches (mm)	Width inches (mm)
A025	4.0 (102)	2.5 (63)	2.0 (51)
A100	4.0 (102)	2.5 (63)	2.0 (51)
A200	6.0 (152)	4.5 (114)	3.0 (76)
N025	4.0 (102)	2.5 (63)	2.0 (51)
N100	4.0 (102)	2.5 (63)	2.0 (51)

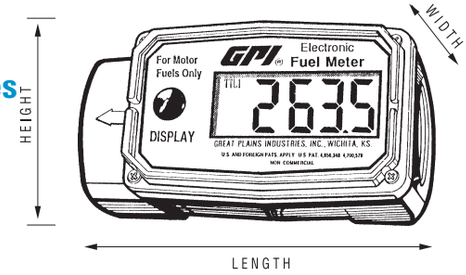
Economy Meters

LM Series



Model	Length inches (mm)	Height inches (mm)	Width inches (mm)
LM50DN	3.52 (89)	3.15 (80)	2.24 (57)

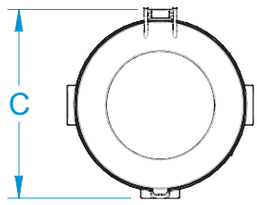
01 Series



Model	Length inches (mm)	Height inches (mm)	Width inches (mm)
01A	4.0 (102)	2.5 (63)	2.0 (51)
01N	4.0 (102)	2.5 (63)	2.0 (51)

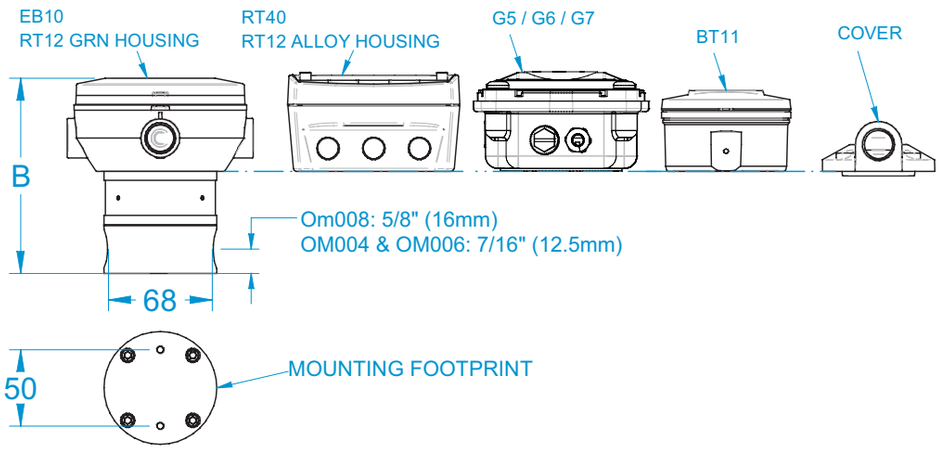
Meter **DIMENSIONS**

OM Series Oval Gear Meters



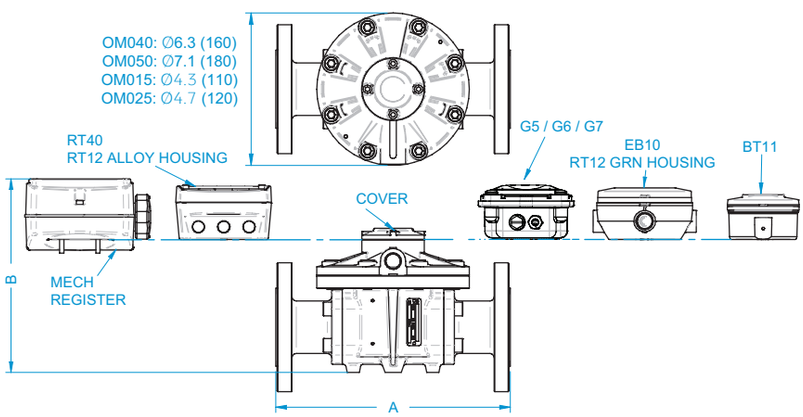
All dimensions are inches ± .079 (millimeters ±2mm)

OPTION	B			C
	OM004	OM006	OM008	
EB10 / RT12 GRN HOUSING	4.8 / 122	4.8 / 122	5.0 / 129	4.9 / 124
RT40 / RT12 ALLOY HOUSING, G5 / G6 / G7	4.9 / 125	4.9 / 125	5.2 / 132	3.8 / 96
BT	4.4 / 113	4.4 / 113	4.7 / 120	3.7 / 94
COVER	3.6 / 92	3.6 / 92	3.9 / 99	2.8 / 72



All dimensions are inches ± .079 (millimeters ±2mm)

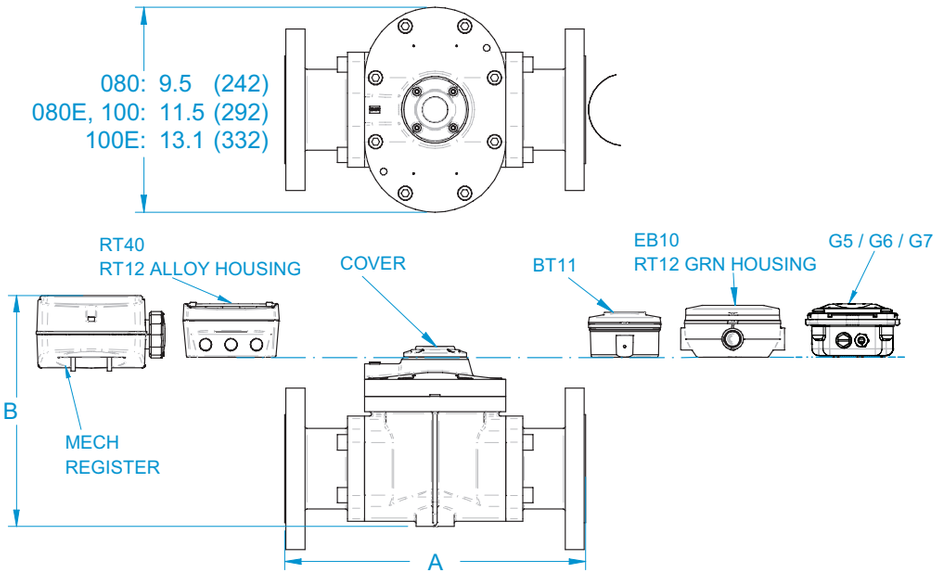
MODULAR FITTING	A						CONFIGURATION	B							
	OM015	OM025A	OM025S	OM040	OM050	OM050E		OM015A	OM015S	OM025A/P	OM025S	OM040A	OM040S	OM050	OM050E
A.N.S.I. 150 DIN16 JIS 10K	7.4 (189)	7.8 (198)	9.3 (237)	9.9 (252)	10.9 (277)	10.9 (277)	EB10/RT12 GRN Housing	6.0 (154)	5.8 (148)	6.6 (168)	6.5 (165)	7.9 (203)	7.6 (194)	8.6 (218)	10.5 (268)
							BT11 Register	5.7 (145)	5.5 (139)	6.3 (160)	6.2 (157)	7.8 (198)	7.3 (186)	8.3 (210)	10.2 (260)
							RT40/RT12 Alloy Housing, G5 / G6 / G7	6.2 (157)	5.9 (151)	6.7 (171)	6.6 (168)	8.1 (206)	7.8 (197)	8.7 (221)	10.7 (271)
B.S.P N.P.T.	4.3 (110)	5.4 (137)	6.9 (176)	7.4 (188)	8.3 (212)	8.3 (212)	Cover	4.2 (106)	3.9 (100)	4.7 (123)	4.6 (117)	6.1 (155)	5.7 (146)	6.7 (170)	8.6 (220)
							Mech. Register	7.0 (178)	6.9 (176)	7.4 (188)	8.4 (214)	8.9 (227)	8.7 (222)	9.3 (237)	11.3 (286)



NOTE: Dimensions are for reference only and may vary by model.

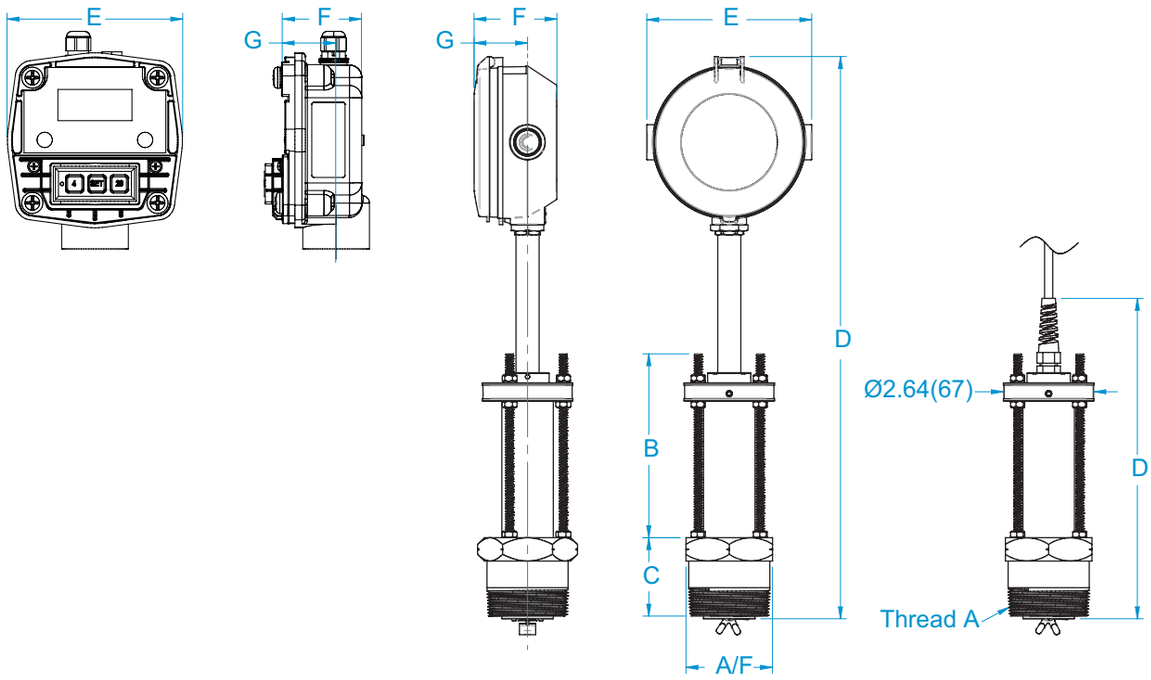
All dimensions are inches ± .079 (millimeters ±2mm)

MODULAR FITTING	A				CONFIGURATION	B				
	OM080	OM080E	OM100	OM100E		OM080A	OM080S	OM080E	OM100	OM100E
A.N.S.I. 150 DIN16 JIS 10K	13.9 / 354	15.0 / 382	15.3 / 388	16.3 / 414	EBREGISTER / RT12 GRN HOUSING	10.2 / 260	10.1 / 257	10.9 / 277	12.7 / 322	15.7 / 399
					BT REGISTER	9.9 / 252	10.2 / 259	10.6 / 269	12.3 / 314	15.4 / 391
					RT40 REGISTER / RT12 ALLOY HOUSING, G5 / G6 / G7	10.3 / 264	10.2 / 260	11.0 / 281	12.8 / 326	15.8 / 403
B.S.P. N.P.T	10.5 / 266	11.6 / 294	11.6 / 294	12.6 / 320	COVER	8.4 / 213	8.1 / 206	9.0 / 229	10.7 / 274	13.9 / 352
					MECH. REGISTER	10.6 / 270	N/A	11.3 / 288	13.1 / 333	16.4 / 416



Meter DIMENSIONS

DP Insertion Impeller Meter



Overall Dimensions

CONFIGURATION	DP490	DP525	
A	1.5" BSP/NPT	2" BSP/NPT	All dimensions are inches ± .08 (millimeters ±2mm)
B	7.79 (198)	17.48 (444)	
C	1.5 (38)	2.28 (58)	
A/F	2.38 (60)	2.5 (64)	

	DP490	DP525	DP490 / DP525		
CONFIGURATION	D	D	E	F	G
Terminal Head	15.16 (385)	34.21 (869)	--	--	--
BT Register	15.51 (394)	34.65 (880)	3.35 (85)	2.09 (53)	--
RT40 Register	14.96 (380)	34.06 (865)	4.45 (113)	2.48 (63)	1.89 (48)
RT12/EB Register	16.34 (415)	35.43 (900)	4.80 (122)	2.40 (61)	--
Flying Lead	9.33 (237)	16.69 (424)	--	--	--
BT / RT12/EB Register	--	--	--	--	1.57 (40)
*GG510-DB, GX510-DB	17.54 (445-5)	36.63 (930.4)	4.2 (106.7)	2.50 (63.5)	1.7 (43.2)

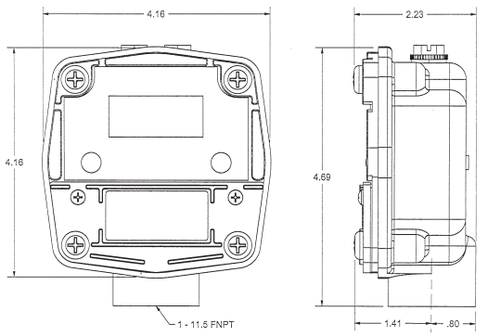
*Display Sold Separately

NOTE: Dimensions are for reference only and may vary by model.

Electronic Choice - Local & Remote

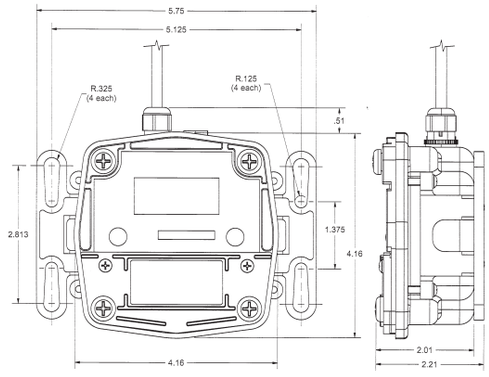
(Dimensions can vary by model.)

Local Model



Length inches (mm)	Height inches (mm)	Width inches (mm)
2.23 (57)	4.69 (119)	4.16 (106)

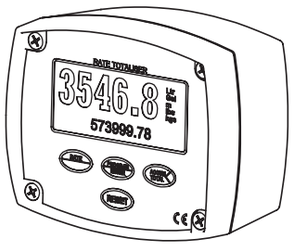
Remote Model

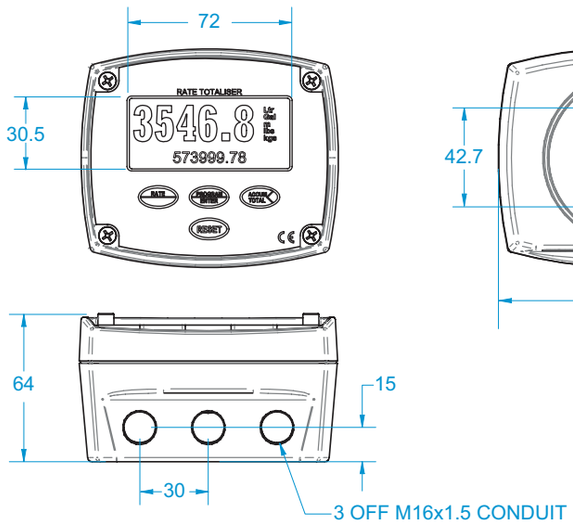


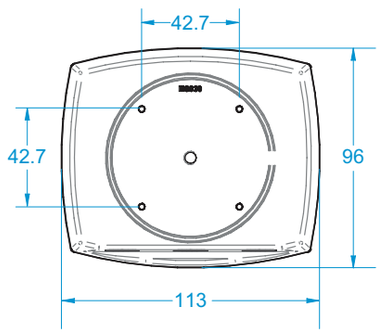
Length* inches (mm)	Height † inches (mm)	Width* inches (mm)
2.21 (56)	4.67 (119)	5.75 (146)

* Includes Mounting Bracket
† Includes Strain Relief

RT40 Rate Totalizer



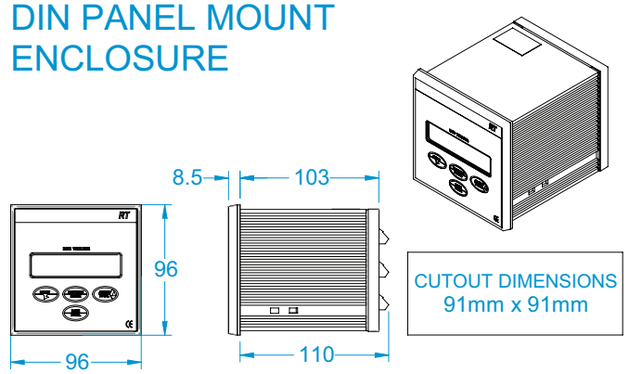




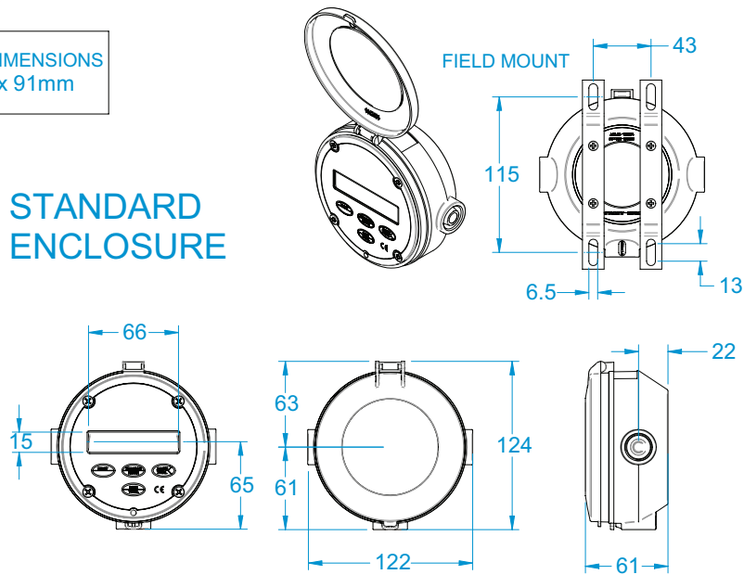
Meter DIMENSIONS

RT12 Rate Totalizer

DIN PANEL MOUNT ENCLOSURE

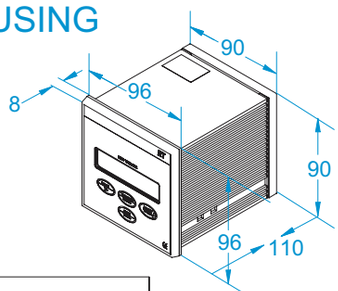


STANDARD ENCLOSURE

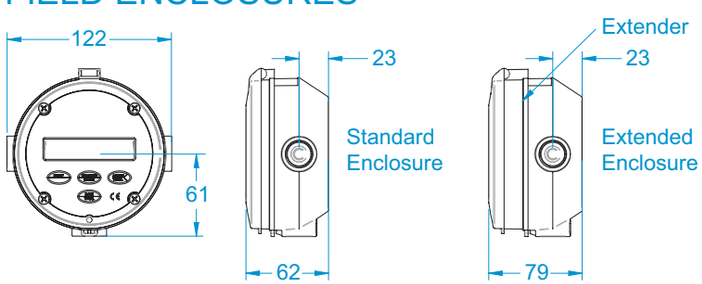


EB10

DIN PANEL MOUNT HOUSING

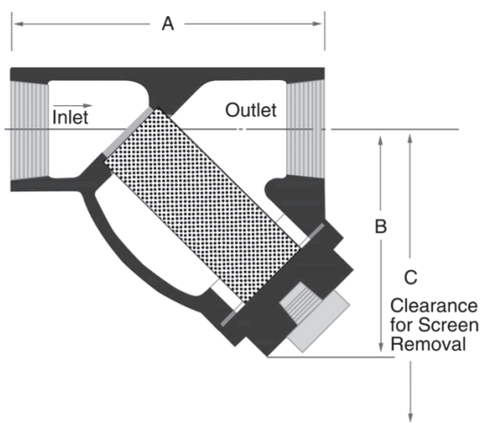


FIELD ENCLOSURES



Y STRAINERS For Oval Gear Meters

Oval Gear Meters work best with clean fluid, free of debris. GPI carries Y Strainers to fit most models of Oval Gear Meters. These strainers range from 1/4 in. to 2 in. models. All sizes come complete with blow-off and plug.



Y STRAINER – SPECIFICATIONS

Blow-off Fitting:	**1/4 inch:**	1/4" NPT
	1/2 inch:	1/4" NPT
	3/4 inch:	1/4" NPT
	1 inch:	1/2" NPT
	1-1/4 inch:	1/2" NPT
	1-1/2 inch:	1/2" NPT
	2 inch:	1/2" NPT
Screen Standard:	**1/4 inch:**	200 mesh
	1/2 inch:	60 mesh
	3/4 inch:	60 mesh
	1 inch:	60 mesh
	1-1/4 inch:	60 mesh
	1-1/2 inch:	60 mesh
	2 inch:	60 mesh
Screen Opening (inch):	**1/4 inch:**	0.011"
	1/2 inch:	0.032"
	3/4 inch:	0.032"
	1 inch:	0.032"
	1-1/4 inch:	0.032"
	1-1/2 inch:	0.032"
	2 inch:	0.032"
Shipping Weight:	**1/4 inch:**	4 lbs.
	1/2 inch:	4 lbs.
	3/4 inch:	5 lbs.
	1 inch:	6 lbs.
	1-1/4 inch:	8 lbs.
	1-1/2 inch:	10 lbs.
	2 inch:	18 lbs.

PART NUMBERS & DIMENSIONS

Part Number	Size	A	B	C
125700-01	1/4 inch:	3-1/4"	2-3/16"	3"
125700-02	1/2 inch:	3-1/4"	2-3/16"	3"
125700-03	3/4 inch:	3-5/8"	2-3/4"	3-1/4"
125700-04	1 inch:	4-1/4"	3-3/16"	4-1/8"
125700-05	1-1/4 inch:	5-1/4"	3-7/8"	5"
125700-06	1-1/2 inch:	6-1/4"	4-3/4"	5-7/8"
125700-07	2 inch:	7-5/8"	6"	8-1/8"

Select Your Strainer Size:

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

Features and Benefits:

- ✓ Machined, tapered seat ensures a perfect fit for the removable, 316 Stainless Steel screen.
- ✓ 316 Stainless Steel body and all screens are 316 Stainless Steel.
- ✓ All sizes come complete with blow-off and plug. These can be replaced with ball valve for on-line blow-down of particulate.
- ✓ Rated for up to 1480 PSI at 100° F for water, oil or gas.
- ✓ Female NPT threads.

Chemical COMPATIBILITY GUIDE

Chemical Compatibility Guide for GPI Flowmeters

R = Recommended
N = Not Recommended
X = Unknown or Not Applicable

	Metals						Plastics								Journals, Shafts					O-Rings				
	Bronze	Aluminum	Brass	304 SS	316 SS	CD4MCu	PVC	PBT Polyester (Valox)	Nylon 6,6	Acetal (Delrin)	PPS (Ryton)	PVDF (Kynar)	Rulon 641	PEEK	Carbon - Graphite	Ceramic / Sapphire	Tungsten Carbide	Ferrite (MnZn)	Hastelloy-C	FKM/Fluorocarbon (Viton)	PTFE (Teflon)	EPDM	Buna-N (Nitrile)	Perfluoroelastomer (FFKM)
Acetic Acid	N	R	N	N	R	R	N	X	N	N	R	N	R	R	R	R	N	X	R	R	R	R	N	R
Acetone	R	R	R	R	R	R	N	N	R	R	R	N	R	R	R	R	R	R	R	N	R	R	N	R
Alcohols: Isobutyl	R	R	X	R	R	R	R	X	X	R	X	X	R	R	R	R	R	X	R	R	R	R	R	R
Alcohols: Isopropyl	R	R	X	R	R	R	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	R	R	R
Alcohols: Methyl	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R
Ammonia, Anhydrous	N	R	N	R	R	R	R	X	X	N	R	R	R	R	X	R	R	X	R	N	R	R	R	R
Ammonia, Liquid	N	R	X	R	R	R	R	X	R	N	R	R	R	R	R	R	R	X	R	N	R	R	N	R
Ammonium Hydroxide	N	R	N	R	R	R	R	N	N	N	R	R	R	R	R	R	N	R	R	R	R	R	N	R
Antifreeze	R	R	X	X	R	X	R	X	X	N	X	X	X	R	X	R	R	R	X	R	X	R	R	R
Boric Acid	R	N	X	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R
Butyl Acetate	R	R	R	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	N	R
Calcium Chloride	R	N	X	N	R	R	N	X	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Calcium Hypochlorite	N	N	X	N	R	R	R	X	X	N	R	R	R	R	R	R	N	R	R	R	R	R	N	R
Carbon Tetrachloride (wet)	R	N	R	R	R	R	X	X	X	R	R	R	R	X	R	R	X	X	R	X	R	N	N	R
Carbonic Acid	R	R	N	R	R	R	R	X	R	R	R	R	R	R	R	R	R	X	R	R	R	R	N	R
Chlorine Water	R	N	N	N	N	R	R	X	N	N	N	R	R	N	R	X	R	R	R	R	R	N	N	R
Chlorine, Anhydrous Liquid	N	N	N	N	N	N	N	X	X	R	N	R	R	N	R	N	X	N	N	R	R	R	N	R
Clorox® Bleach (Sodium Hypochlorite)	X	N	X	R	R	R	R	R	N	N	N	R	R	R	X	R	N	X	R	R	R	R	N	R
Detergents	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R
Diesel Fuel	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R
Ethanol	R	R	R	R	R	R	N	X	R	R	X	X	R	R	R	R	R	X	R	R	R	R	N	R
Ethylene Dichloride	N	R	R	R	R	R	N	X	X	R	R	R	R	R	R	R	R	X	R	R	R	N	N	R
Ethylene Glycol	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Ferric Chloride	N	N	N	N	N	R	R	X	N	N	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Freon 113	X	X	X	X	X	R	R	X	X	R	R	R	R	R	X	R	R	R	R	R	R	N	R	R
Fuel Oils (#1 and #2)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	R	N	R	R
Gasoline, Unleaded	R	R	X	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R
Heptane	R	R	R	R	R	R	N	X	X	R	R	R	R	R	R	R	R	X	R	R	R	N	R	R
Hydraulic Oil (Petro)	R	R	R	R	R	R	R	R	X	R	N	R	R	R	R	R	R	R	R	R	R	N	R	R
Hydraulic Oil (Synthetic)	R	R	R	R	R	R	R	R	X	X	X	R	R	R	R	R	R	R	R	R	R	R	N	R
Hydrochloric Acid 20%	N	N	X	N	N	R	R	R	N	N	N	R	R	N	R	N	N	R	R	R	R	N	X	R
Hydrochloric Acid 37%	N	N	X	N	N	R	R	X	N	N	N	R	R	R	R	N	N	R	R	R	R	R	R	R
Hydrochloric Acid 100%	N	N	N	N	N	R	N	N	N	N	N	R	R	R	R	R	N	R	R	R	R	N	N	R
Hydrofluoric Acid 20%	R	N	X	N	N	R	R	R	N	N	R	R	R	N	X	N	N	R	R	R	R	N	N	R
Hydrofluoric Acid 100%	R	N	X	R	R	R	N	N	N	N	N	R	R	N	R	N	N	R	R	R	R	N	N	R
Hydrogen Peroxide 10%	R	R	X	R	R	R	R	R	N	N	R	R	R	R	N	R	N	R	R	R	R	R	N	R
Hydrogen Peroxide 30%	R	R	X	R	R	R	R	X	N	N	R	R	R	R	N	X	N	R	R	R	R	R	N	R
Hydrogen Peroxide 100%	R	R	N	R	R	R	R	X	N	N	N	R	R	R	N	X	N	R	R	R	R	N	N	R
Isopropyl Acetate	R	N	X	N	R	R	N	X	X	N	X	N	R	R	R	R	R	X	R	N	R	R	N	R
Kerosene	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R
Ketones	R	R	X	R	R	R	N	X	X	N	R	N	R	R	R	R	R	X	R	N	R	R	N	R

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R = Recommended
N = Not Recommended
X = Unknown or Not Applicable

	Metals						Plastics								Journals, Shafts					O-Rings				
	Bronze	Aluminum	Brass	304 SS	316 SS	CD4MCu	PVC	PBT Polyester (Valox)	Nylon 6,6	Acetal (Delrin)	PPS (Ryton)	PVDF (Kynar)	Rulon 641	PEEK	Carbon - Graphite	Ceramic / Sapphire	Tungsten Carbide	Ferrite (MnZn)	Hastelloy-C	FKM/Fluorocarbon (Viton)	PTFE (Teflon)	EPDM	Buna-N (Nitrile)	Perfluoroelastomer (FFKM)
Lacquer Thinners	R	R	R	R	R	R	N	X	X	N	X	X	R	X	R	X	R	X	R	N	R	N	N	R
Lacquers	R	R	X	R	R	R	N	X	X	N	X	N	R	R	R	R	R	X	R	N	R	N	N	R
Lye: NaOH Sodium Hydroxide	N	N	N	R	R	N	R	X	X	N	R	N	R	R	X	R	R	X	N	R	R	R	R	R
Magnesium Hydroxide	R	N	N	R	R	R	R	X	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R
Methanol (Methyl Alcohol)	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R
Methyl Ethyl Ketone	R	R	R	R	R	R	N	R	R	N	R	N	R	R	R	R	X	R	R	N	R	R	N	R
Motor Oil	R	R	X	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	X	X	R	N	R	R
Nitrating Acid (> 15% H2S04)	X	N	X	N	N	R	N	X	X	N	N	X	R	N	X	R	N	X	R	X	R	R	N	R
Nitric Acid (5-10%)	R	R	N	R	R	R	R	X	R	N	R	R	R	N	R	N	N	X	R	R	R	R	N	R
Nitric Acid (50%)	R	N	N	R	R	R	R	X	N	N	N	R	R	N	R	N	N	N	R	R	R	N	N	R
Nitric Acid (Concentrated)	R	N	N	R	R	R	R	R	N	N	N	R	R	N	N	N	N	N	R	R	R	N	N	R
Oils: Hydraulic Oil (Petro)	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R	X	R	R	R	N	R	R
Oils: Mineral	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R
Oils: Transformer	X	R	X	R	R	X	R	R	X	R	X	R	R	R	R	R	R	X	X	R	R	N	R	R
Phosphoric Acid (< 40%)	R	N	N	N	N	R	R	X	N	N	R	R	R	R	R	R	N	N	R	R	R	R	N	R
Phosphoric Acid (> 40%)	R	N	N	N	N	R	R	X	N	N	R	R	R	R	R	R	N	X	R	R	R	R	N	R
Potassium Chloride	R	N	N	R	R	R	R	R	R	R	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Potassium Hydroxide (Caustic Potash)	N	N	N	R	R	R	R	N	R	R	R	R	R	R	N	N	N	R	R	R	R	R	R	R
Potassium Hypochlorite	N	N	X	N	R	R	R	X	X	X	R	R	R	X	X	N	N	X	R	X	R	R	R	R
Propane (Liquefied)	R	R	R	R	R	R	R	X	R	R	X	R	R	R	R	R	R	X	R	R	R	N	R	R
Propylene Glycol	R	R	X	R	R	R	N	R	R	R	X	X	R	R	X	R	R	R	R	R	R	R	R	R
Salt Brine (NaCl Saturated)	R	R	X	R	R	R	R	X	X	X	R	R	R	R	R	X	N	X	R	R	R	R	R	R
Sea Water	R	R	N	N	N	R	R	R	X	R	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Soap Solutions	R	N	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Sodium Bicarbonate	R	N	N	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Sodium Chloride	R	N	N	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R	R
Sodium Hydroxide (20%)	R	N	R	R	R	R	R	X	R	R	R	R	R	R	R	R	N	X	R	N	R	R	R	R
Sodium Hydroxide (50%)	N	N	N	R	R	N	R	X	R	R	R	R	R	R	X	R	N	X	N	N	R	R	R	R
Sodium Hydroxide (80%)	N	N	N	N	R	R	R	N	R	N	R	R	R	R	R	R	N	N	R	N	R	R	N	R
Sodium Hypochlorite (< 20%)	N	N	N	N	N	R	R	X	N	N	R	R	R	R	R	R	N	R	R	R	R	R	R	R
Sodium Hypochlorite (100%)	N	N	N	N	N	R	R	X	N	N	R	R	R	R	N	R	N	R	R	R	R	R	N	R
Sulfuric Acid (< 10%)	R	N	X	N	R	R	R	X	N	N	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Sulfuric Acid (75-100%)	R	N	X	N	N	R	N	X	N	X	R	R	R	N	N	R	N	N	R	R	R	R	N	R
Toluene (Toluol)	R	R	R	R	R	R	N	N	R	N	R	R	R	R	R	R	R	R	R	N	R	N	N	R
Trichloroethylene	R	N	X	R	R	R	N	X	R	N	R	R	R	R	R	X	R	R	R	R	R	N	N	R
Vinegar	R	N	N	R	R	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Water, Deionized	X	N	R	R	R	R	R	X	X	X	R	R	R	X	R	R	X	X	R	R	R	R	R	R
Water, Distilled	R	N	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R
Water, Salt	R	N	N	R	R	R	R	X	X	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R
Xylene	R	R	R	R	R	R	N	N	R	R	R	R	R	R	R	R	R	X	R	R	R	N	N	R

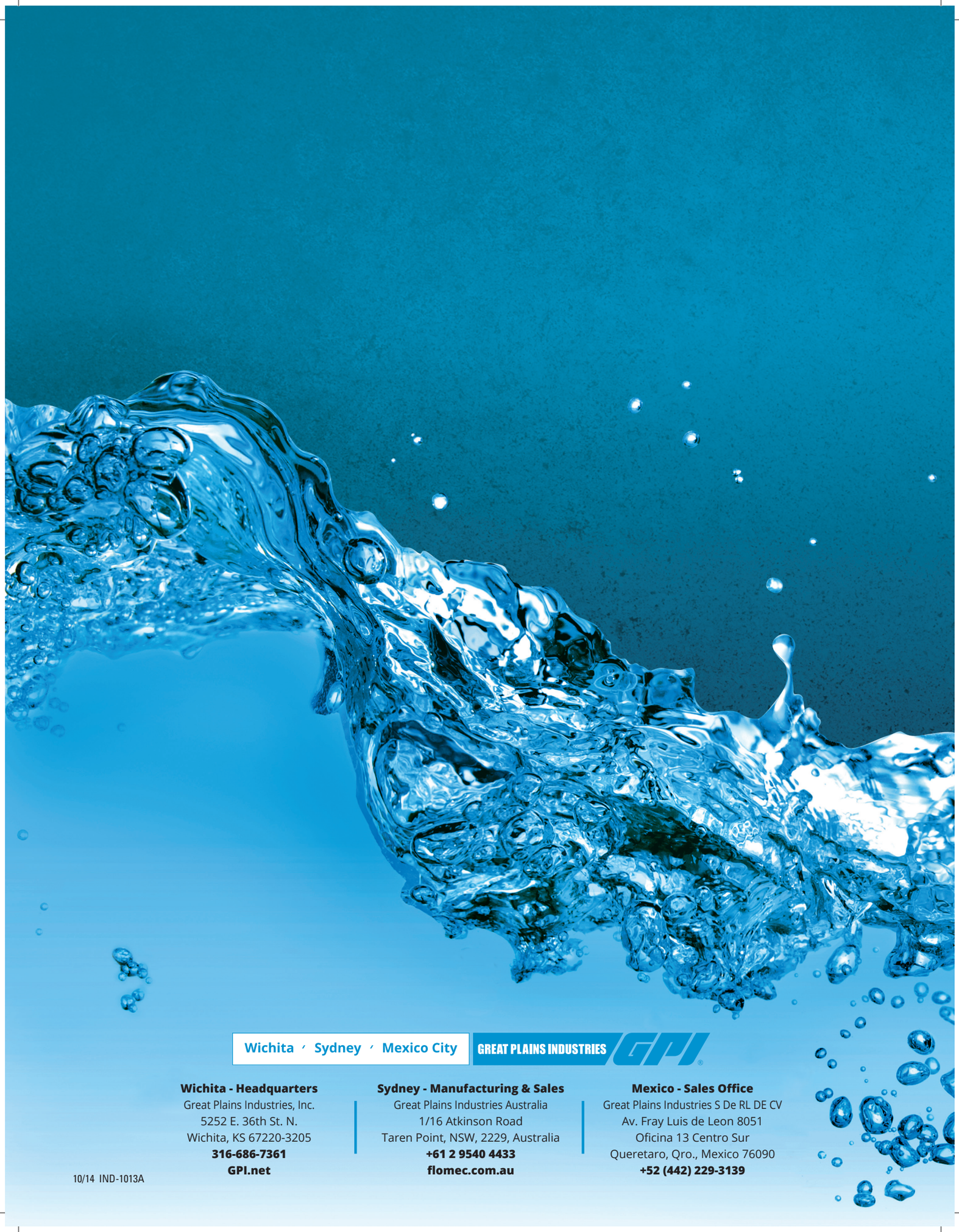
APPROVALS Guide

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	**3-A Sanitary Standards, Inc.** "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 **Oval Gear Meters**, the CE Approval is applied when meter is part of a system.
FM APPROVED	**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.
C FM US APPROVED	**Factory Mutual Approved** Class 1, Div. 1, Group D (01A31GM Only)
C 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.
FC	**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 **Oval Gear Meters** 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 SA® US	Indicates that the product was tested and has met the certification requirements for electrical, plumbing and/or mechanical products.



Wichita · Sydney · Mexico City

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