# 3A FOOD & BEVERAGE

#### HIGH-PRECISION TURBINE METER



## **SPECIFICATIONS**

Design Type:	Turbine				
Fitting Type:	Sanitary Clamp				
Housing Materia	Housing Material:		316 Stainless Steel		
		1"> 1-1/2" Fitting			
Meter ID:		1-1/2"> 1-1/2" Fitting			
		2"> 2" Fitting			
	1" (100)	6.7 - 67 GPM	(25 - 252 L/min)		
Flow Range:	1-1/2"(150)	17.7 - 177 GPM	(67 - 670 L/min)		
	2" (200)	33 - 330 GPM	(125 - 1250 L/min)		
Accuracy (Linea	rity):	± 0.5%			
Repeatability:		± 0.1%			
Pressure Rating	Pressure Rating:		Limited by fitting size, clamp size and temperature.		
Temperature Ra	inge:				
Operating:		-100° F to 225° F (-74° C to 107° C)			
For SIP (up to 1 I	nour):	285° F (140° C)			
	1" (100)	896 PPG (237 Pulses/L)			
Typical K-Factor:	1-1/2"(150)	340 PPG (90 Pulses/L)			
it ruotor.	2" (200)	181 PPG (48 Pulses/L)			
	Housing:	316 Stainless Steel			
	Bushings & Bearings:	PEEK			
W es I	Shaft:	316 Stainless Steel			
Wetted Materials:	Rotor:	CD4MCu Stainless Steel			
	Rotor Supports:	316 Stainless Steel			
	Retaining Rings:	300 Series Stainless Steel			



The GSCPS Series High Precision Meter is the most accurate of all FLOMEC® Turbine Meters. This meter was designed to meet the strict 3-A Sanitary Standards for any food and beverage application.

The GSCPS turbine meter's robust design provides reliable performance while delivering economical operating costs. The internals of the 3-A meter are machined and polished to meet 3A self-draining and cleaning requirements (Ra 32). Parts are easily replaceable making lifetime maintenance of the turbine meter a preferred choice.

# FEATURES / BENEFITS

- · Proven turbine design that provides the best total operating cost
- Meets Clean in Place (CIP), Steam in Place (SIP), and Clean Out of Place (COP) requirements to allow for any sanitary procedure that work best for plant managers
- +/- 0.5% accuracy of reading and +/- 0.1% repeatability providing reliable, accurate flow measurement
- Multiple blind pulse out options available for connection to a variety of PLC, display equipment, and process control equipment
- Factory installed local Rate and Totalizer display available with digital, analog and flow alarm outputs
- Wide temperature range of -100° F to 225° F (-74° C to 107° C) to accommodate various stages of food and beverage processes
- Capable of 285° F (140° C) temperature up to 1 hour for SIP sanitary procedures
- 4-20 mA analogue output according to flow rate
- Scaled pulse output according to accumulated total

Recommended Strainer Size:	1"	40 mesh (420 μm)	
	1-1/2"	18 mesh (1000 μm)	
	2"	14 mesh (1410 μm)	
Frequency Output:	1" (100)	100 - 1000 Hz	
	1-1/2"(150)	100 - 1000 Hz	
	2" (200)	100 - 1000 Hz	
Calibration Report:	Comes standard.		
	N.I.S.T. – Certification available.		

#### **FLUIDS**

- Alcohols
- · Light Oils

- Milk
- Filtered Wine
- Juice

- Water
- De-ionized Water
- · CIP Solution

- Beer
- Vinegar

## APPROVALS/WARRANTY













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.

# **MODELS**

#### 3A Meter, RT14 4-20mA, Scaled Pulse, Pulse out Rate and Totalizer Display

GSCPS-100-RT14	RT14 Display, Sanitary Turbine HT 1" (025mm), 1-1/2" Tri-Clamp (with 3A Certification) (Default to Gallons)
GSCPS-150-RT14	RT14 Display, Sanitary Turbine HT 1-1/2" (040mm), 1-1/2" Tri-Clamp (with 3A Certification) (Default to Gallons)
GSCPS-200-RT14	RT14 Display, Sanitary Turbine HT 2" (050mm), 2" Tri-Clamp (with 3A Certification) (Default to Gallons)

#### 3A Meter, 2-Wire Magnetic Pickup with 10ft. of Cable (Sine Wave Pulse)

GSCPS-100-2	2-wire Magnetic Pickup, Sanitary Turbine HT 1" (025mm), 1-1/2" Tri- Clamp (with 3A Certification)
GSCPS-150-2	2-wire Magnetic Pickup, Sanitary Turbine HT 1-1/2" (040mm), 1-1/2" Tri-Clamp (with 3A Certification)
GSCPS-200-2	2-wire Magnetic Pickup, Sanitary Turbine HT 2" (050mm), 2" Tri-Clamp (with 3A Certification)

### 3A Meter, 3-Wire Magnetic Pickup with 10ft. of Cable (Square Wave Pulse)

GSCPS-100-3	3-wire Magnetic Pickup, Sanitary Turbine HT 1" (025mm), 1-1/2" Tri- Clamp (with 3A Certification)
GSCPS-150-3	3-wire Magnetic Pickup, Sanitary Turbine HT 1-1/2" (040mm), 1-1/2" Tri-Clamp (with 3A Certification)
GSCPS-200-3	3-wire Magnetic Pickup, Sanitary Turbine HT 2" (050mm), 2" Tri-Clamp (with 3A Certification)

# **ACCESSORIES / ELECTRONICS**

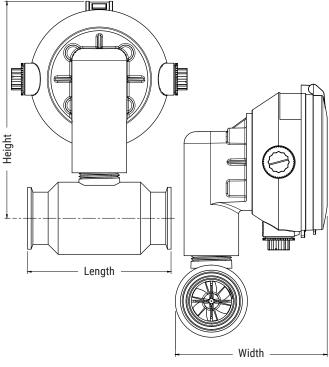
Part No.	Description
80001101*	Weather proof enclosure - Zinc
80001105*	Weather proof enclosure - SS
RT406D0FM <sup>†</sup>	Rate/ Totalizer with Pulse Out (Remote)
RT142D0FM	Rate/Totalizer, 4-20 mA, Pulse, Alarms (remote)
EB112D0FM <sup>†</sup>	Batch Controller (Remote)

<sup>\*</sup>This enclosure is not approved for 3A applications.

# **DIMENSIONS**

#### 3A Turbine Meter with RT14 Display

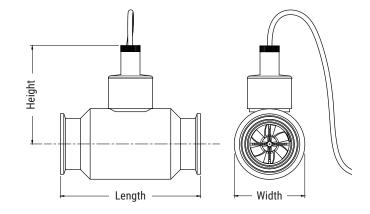
Size	Height	Length	Width
GSCPS-100-RT14	6.74 in.	3.562 in.	4.71 in.
GSCPS-150-RT14	6.95 in.	4.594 in.	4.87 in.
GSCPS-200-RT14	3.25 in.	6.063 in.	5.15 in.



## **DIMENSIONS**

**3A Turbine Meter** with 2-Wire or 3-Wire Magnetic Pickup Options

Size	Height	Length	Width
GSCPS-100-2	2.38 in.	3.562 in	2 in
GSCPS-100-3	2.98 in.	3.562 in	2 in
GSCPS-150-2	2.62 in.	4.594 in	2.3 in
GSCPS-150-3	3.22 in.	4.594 in	2.3 in
GSCPS-200-2	2.86 in.	6.063 in	2.88 in
GSCPS-200-3	3.46 in.	6.063 in	2.88 in





<sup>&</sup>lt;sup>†</sup>This display is not approved for 3A applications.