

# 3A FOOD & BEVERAGE HIGH-PRECISION TURBINE METER



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



**3A Turbine Meter  
with RT14 Display**



The GSCPS Series High Precision Meter is the most accurate of all FLOMEC® Turbine Meters. This meter was designed to meet the strict 3A 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 3A 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.

## SPECIFICATIONS

|                            |                                                      |                                  |                    |
|----------------------------|------------------------------------------------------|----------------------------------|--------------------|
| Design Type:               | Turbine                                              |                                  |                    |
| Fitting Type:              | Sanitary Clamp                                       |                                  |                    |
| Housing Material:          | 316 Stainless Steel                                  |                                  |                    |
| Meter ID:                  |                                                      | 1" --> 1½" Fitting               |                    |
|                            |                                                      | 1½" --> 1½" Fitting              |                    |
|                            |                                                      | 2" --> 2" Fitting                |                    |
| Flow Range:                | 1" (100)                                             | 6.7 - 67 GPM                     | (25 - 252 L/min)   |
|                            | 1½"(150)                                             | 17.7 - 177 GPM                   | (67 - 670 L/min)   |
|                            | 2" (200)                                             | 33 - 330 GPM                     | (125 - 1250 L/min) |
| Accuracy (Linearity):      | ± 0.5%                                               |                                  |                    |
| Repeatability:             | ± 0.1%                                               |                                  |                    |
| Pressure Rating:           | Limited by fitting size, clamp size and temperature. |                                  |                    |
| Temperature Range:         |                                                      |                                  |                    |
| Operating:                 | RT14                                                 | -22°F to 176°F (-30°C to 80°C)   |                    |
|                            | 2-Wire                                               | -100°F to 250°F (-73°C to 121°C) |                    |
|                            | 3-Wire                                               | -40°F to 248°F (-40°C to 120°C)  |                    |
| For SIP (up to 1 hour):    |                                                      | 285°F (140°C)                    |                    |
| Typical K-Factor:          | 1" (100)                                             | 896 PPG (237 Pulses/L)           |                    |
|                            | 1½" (150)                                            | 340 PPG (90 Pulses/L)            |                    |
|                            | 2" (200)                                             | 181 PPG (48 Pulses/L)            |                    |
| Wetted Materials:          | Housing:                                             | 316 Stainless Steel              |                    |
|                            | Bushings & Bearings:                                 | PEEK                             |                    |
|                            | Shaft:                                               | 316 Stainless Steel              |                    |
|                            | Rotor:                                               | CD4MCu Stainless Steel           |                    |
|                            | Rotor Supports:                                      | 316 Stainless Steel              |                    |
|                            | Retaining Rings:                                     | 300 Series Stainless Steel       |                    |
| Recommended Strainer Size: | 1"                                                   | 40 mesh (420 µm)                 |                    |
|                            | 1½"                                                  | 18 mesh (1000 µm)                |                    |
|                            | 2"                                                   | 14 mesh (1410 µm)                |                    |
| Frequency Output:          | 1" (100)                                             | 100 - 1000 Hz                    |                    |
|                            | 1½" (150)                                            | 100 - 1000 Hz                    |                    |
|                            | 2" (200)                                             | 100 - 1000 Hz                    |                    |
| Calibration Report:        | Comes standard.                                      |                                  |                    |
|                            | N.I.S.T. – Certification available.                  |                                  |                    |

## 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 to accommodate various stages of food and beverage processes
- Turbine 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

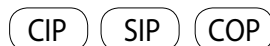
## FLUIDS

- Milk
- Water
- Beer
- Alcohols
- Filtered Wine
- De-ionized Water
- Vinegar
- Light Oils
- Juice
- CIP Solution

## 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.



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## MODELS

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

|                       |                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------|
| <b>GSCPS-100-RT14</b> | RT14 Display, Sanitary Turbine HT 1" (025mm), 1½" Tri-Clamp (with 3A Certification) (Default to Gallons)  |
| <b>GSCPS-150-RT14</b> | RT14 Display, Sanitary Turbine HT 1½" (040mm), 1½" Tri-Clamp (with 3A Certification) (Default to Gallons) |
| <b>GSCPS-200-RT14</b> | 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)

|                    |                                                                                                |
|--------------------|------------------------------------------------------------------------------------------------|
| <b>GSCPS-100-2</b> | 2-wire Magnetic Pickup, Sanitary Turbine HT 1" (025mm), 1½" Tri-Clamp (with 3A Certification)  |
| <b>GSCPS-150-2</b> | 2-wire Magnetic Pickup, Sanitary Turbine HT 1½" (040mm), 1½" Tri-Clamp (with 3A Certification) |
| <b>GSCPS-200-2</b> | 2-wire Magnetic Pickup, Sanitary Turbine HT 2" (050mm), 2" Tri-Clamp (with 3A Certification)   |

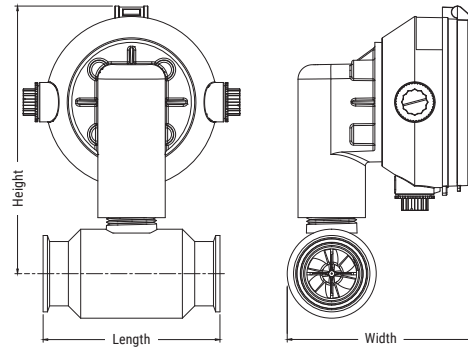
### 3A Meter, 3-Wire Magnetic Pickup with 10ft. of Cable (Square Wave Pulse)

|                    |                                                                                                |
|--------------------|------------------------------------------------------------------------------------------------|
| <b>GSCPS-100-3</b> | 3-wire Magnetic Pickup, Sanitary Turbine HT 1" (025mm), 1½" Tri-Clamp (with 3A Certification)  |
| <b>GSCPS-150-3</b> | 3-wire Magnetic Pickup, Sanitary Turbine HT 1½" (040mm), 1½" Tri-Clamp (with 3A Certification) |
| <b>GSCPS-200-3</b> | 3-wire Magnetic Pickup, Sanitary Turbine HT 2" (050mm), 2" Tri-Clamp (with 3A Certification)   |

## DIMENSIONS

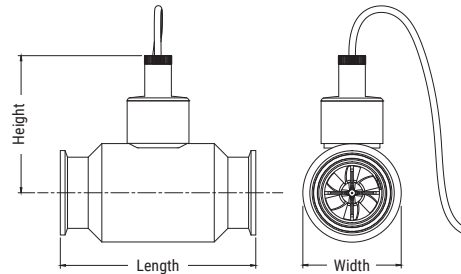
### 3A Turbine Meter with RT14 Display

| 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. |



### 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. |



## ACCESSORIES / ELECTRONICS

### 80001101\*

Weather proof enclosure  
Zinc



### 80001105\*

Weather proof enclosure  
Stainless Steel



### RT406D0FM†

Rate/Totalizer, with Pulse  
Out (Remote)



### RT142D0FM

Rate/Totalizer, 4-20 mA,  
Pulse, Alarms (Remote)



### EB112D0FM†

Batch Controller (Remote)



\*This enclosure is not approved for 3A applications.

†This display is not approved for 3A applications.