

## SG-100M Electronic Hydrometer / Liquid Density Monitor

Model # SG-100M



**SG-100M Digital Hydrometer**

### Product Overview

The **SG-100M Specific Gravity Meter/Liquid Density Monitor** will replace ordinary glass bulb and optical refractometer hydrometers that are limited in range, utility and functionality. The SG-100M has an in-tank, drop-hang submersible probe that measures, monitors, records, and controls specific gravity/liquid density during a mixing, blending, fermentation, distillation, or plating operation. The SG-100M offers many user-customized options that allow the instrument to fit your exact measuring needs. The measurement probe can be purchased independently for integration into an existing PLC (Programmable Logic Controller). Optional 4-20mA analog output board or dual 5 amp relays for process control are also available. Simply submerge the measuring probe up to 500 feet and connect to an electronics module to provide digital readouts of user defined values such as Density, Specific Gravity, Baume, Brix and Alcohol %.

### Advantages

- 99.995% Accurate, measures in liquids or slurries
- Pressure irrelevant - can monitor density at any depth
- Remote readout at desired distance from probe
- Readout can be chosen in preferred engineering units
- Battery or In-tank operation depending on application
- Determines concentration mix (by volume or mass) of the sample
- Large sample temperature ranges (up to 106°C / 220°F)
- Customization available based on user needs



**Digital Panel Meter**



**CPVC Probe**

### Technical Specifications

<b>Measurement Range:</b>	Density: 0.550 – 2.000 g/cm <sup>3</sup> * Sample Temperature: 20 – 106 °C (40 – 220 °F)
<b>Pressure Range:</b>	0 – 5 atm (operable in vacuum)
<b>Accuracy:</b>	±0.005 g/cm <sup>3</sup>
<b>Resolution:</b>	±0.001 g/cm <sup>3</sup>
<b>Repeatability:</b>	±0.004 g/cm <sup>3</sup>
<b>Minimum Sample Volume:</b>	310 mL
<b>Data Transfer:</b>	Analog Voltage Data Logger (optional) 4 – 20 mA, dual 5 A Relay
<b>Operating Environment:</b>	-20 – 106 °C (-40 – 220 °F)
<b>Power Requirements:</b>	Control Module: 120/240 VAC** Probe: 0 – 5 VDC
<b>Dimensions<sup>1</sup>:</b>	Probe Length x Diameter: 280 x 51 mm (11 x 2 in)
<b>Weight:</b>	Probe: 2.3 kg (5 lbs)
<b>Cable Length:</b>	Standard: PVC: 1.2 – 452.4 m (4 – 500 ft) Optional: Teflon: 1.2 – 30.4 m (5 – 200 ft)

(1) Probe must be mounted vertically and be completely submerged in the test solution.

### Applications

- Chemical
- Petroleum
- Food & Beverage
- Passivation
- Electroplating
- Flux Density Control
- Paper Production
- Coatings

### Kit Includes:

- SG-100M Digital Panel Meter
- SG-100M CPVC Probe
- PVC Cable (Standard Lengths: 4 ft to 100 ft)
- **Optional:** Teflon Cable for Caustic Solutions

### Ordering Information

No.	Model #	Description
1	SG-100M	Digital Panel Meter, CPVC Probe
2	SG-100M Probe	Standalone CPVC Probe
3	SG-100M with Relay	Digital Panel Meter with Analog Output Board (4-20 mA) or Dual 5 A Relay, CPVC Probe