

SG-100M Electronic Hydrometer / Liquid Density Monitor

Model # SG-100M



SG-100M Digital Hydrometer with Digital Panel Meter and Test Probe

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.

Designed for customization, the SG-100M has a variety of 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). An optional 4-20mA analog output board is 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 %.

Technical Specifications

Measurement Range⁽¹⁾	Density: ± 0.400 g/cm ³ (within the range of 0.550 lower limit to 2.000 g/cm ³ upper limit) Sample Temperature: 20 – 106 °C (40 – 220 °F)
Pressure Range	0 – 5 atm (operable in vacuum)
Accuracy	± 0.005 g/cm ³
Resolution	± 0.001 g/cm ³
Repeatability	± 0.004 g/cm ³
Data Transfer	Analog Voltage Data Logger (optional) 4 – 20 mA
Operating Environment	-20 – 106 °C (-40 – 220 °F)
Power Requirements	Control Module: 120/240 VAC ⁽³⁾ Probe: 0 – 5 VDC
Dimensions	Probe Length x Diameter: 280 x 51 mm (11 x 2 in)
Weight	Probe: 2.3 kg (5 lbs)
Cable Length	Standard: PVC: 1.2 – 452.4 m (4 – 500 ft) Optional: Teflon: 1.2 – 30.4 m (5 – 200 ft)

(1) Custom density ranges available based on customer specification

Product Features

- 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)

Kit Includes

- SG-100M Digital Panel Meter
- SG-100M CPVC Probe
- PVC Cable (Standard Lengths: 10 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 Output	Digital Panel Meter with Analog Output Board (4-20 mA), CPVC Probe