



DA-130N, Portable Density/Specific Gravity Meter

Features:

- Sampling volume and speed is single hand controlled. (Patent pending)
- Operative either by right or left hand, the cell can be viewed during measurement.
- Light weight allows operators to feel tireless in the normal operations.
- Viscous liquid up to ca 2000 mPa*s can be sampled in.
- The display shows density, temperature compensated density, specific gravity, temperature compensated specific gravity, Brix %, alcohol concentration, sulfuric acid concentration, API concentration, Baume degree, Plato and Proof degree and the like.
- Graphic LCD can display temperature (°C/°F), sample number, auto sensing oscillation stability, auto data saving, auto data output, data deletion, battery capacity indicator, and the like.
- Life of battery is increased four times more than conventional makes, providing much longer operation time.

Applications:

- Density measurement on crude oil, fuel oil, lubricants and the like.
- ISO 758 for chemical products requires measurement by oscillation method for 20°C density and 20/20°C specific gravity.
- Density or Brix of milk, soft drinks, fruit beverages & the like.
- Alcohol degree of beer, whisky, wine and spirits.
- Quality control by measuring Brix or concentration of food materials.
- Density or specific gravity of oils and fats such as vegetable oils or animal oils.
- Conforming to U.S. Pharmacopeia for pharmaceutical products.
- Concentration control of etchant or pickling fluid for electronic components.
- Concentration control on flux or plating fluid.

Model	DA-130N
Measuring method	Natural Oscillation type
Measurement object	Liquid sample test materials
Range	0.0000 ~ 2.0000 g/cm ³
Precision	±0.001 g/cm ³
Resolution	0.0001 g/cm ³
Temperature range	0 ~ 40.0°C
Display contents	Density and Relative gravity (with/without temperature compensated) Brix%, Alcohol wt%, Alcohol vol%, Proof, Baume, Plato, API, %H ₂ SO ₄ , Conc. (set by User), Temperature, Sample number, Stability sense, Data storage, External output, Battery capacity
Temperature compensation	Up to 10 entries for temperature compensation coefficient & converted temperature
Automatic calibration	All density values of pure water needed for auto calibration can be stored.
Number of data	1,100 samples
External output	PC or Printer can be connected. (not both) <ul style="list-style-type: none"> • IrDA interface is standard equipped. • Connection via RS-232C requires optional infrared RS converter (98-029-0007).
Weight	Approximately 360g
Power source	DC 3V (2 pieces of 1.5V alkaline dry cell ("AAA"))
Battery life	Approximately 90 hours
Sampling method	Syringe-type hand pump



DA-100

DA-100, Density/Specific Gravity Meter

The DA-100 has built-in thermostat to enable stable temperature control, & density/specific gravity is measured quickly & precisely. Accuracy of measurement is $\pm 0.001\text{g/cm}^3$ by measuring resonant frequency.

Specifications:

Model	DA-100
Measurement method	Natural Oscillation method
Measurement range	0~3g/cm ³
Measurement accuracy	$\pm 0.001\text{g/cm}^3$
Measurement temperature range	15°C~40°C(0.1°C step) 59°F~104°F(1°F step)
Temperature accuracy	$\pm 0.5^\circ\text{C}$
Temperature control	$\pm 0.1^\circ\text{C}$
Measurement time	20sec~90sec (within 1min for aqueous solution)
Min. sample required	Approx.1mL (manual sampling by syringe)
Display	16 character X2 lines on LCD with back light Density, specific gravity: x.xxx Temperature: xx.x°C or xxx°F Concentration: $\pm x.xxx \sim \pm xxxxx$ (1 to 3 digits after decimal can be selected.) Messages
Sampling	Manual sampling by syringe (or optional sampling unit)
Stability judgment	By built-in processor
Calibration	2 point factor calibration using dry air & de-gassed pure water
External output	RS-232C (1 channel)
Outer dimension (WxDxH)	275x350x165mm
Power supply	AC100~115V or AC220~240V, 50/60Hz
Power consumption	Approx. 30W
Weight	Approx. 6Kg

Features:

- Temperature can be selected in the range from 15°C to 40°C by 0.1°C step.
Also setting in °F (59°F~104°F, 1°F step) is available.
- Can convert density/specific gravity to concentration value and display
Conversion Equation is linear and display is in 12 different units. It enables more efficient and effective routine measurement than conventional measurement with hydrometer for API degree, Baume degree and others.
- Can output data of density, specific gravity, concentration values, date and time, etc through RS-232C and can be connected to an external computer or an optional printer.
(External computer and printer cannot be connected at the same time).
- Parameter setting and operating is designed user-friendly, easy to use, being guided by dialogue message on display.
- Purge pump is equipped as standard to desiccate the measuring cell.
- Easy factor calibration of measuring cell can be performed using air and pure water. No complicated calculation is required.

Options:

Model	
ASU-100	Auto sampling unit
IDP-100	Printer

Flow Chart of Auto Sampling Unit

