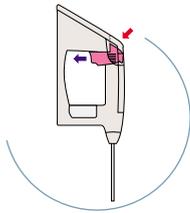


Performance of DA-130N

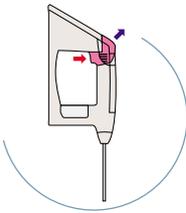


Suction and discharge can be exerted with the thumb and forefinger. The lever stops when finger power is released. The all operational buttons are placed within thumb's reach for increased work efficiency.

When discharging



When suctioning



When measuring
Operative with a thumb and forefinger only



Communication function

Infrared port is standard equipped for easy data transmission. (conforming to IrDA ver1.2)



Monitor display

So easy to see valuable and various information on graphic LCD.



Portable Density/ Specific Gravity Meter DA-130N

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 two times more than conventional makes, providing much longer operation time.
- Both time of day and operator's name can be printed out.
- Backlight display improves readability of displayed characters.

Specification : See page 8

Density/Specific Gravity Meter DA-100

Features

- Temperature can be selected in the range from 15 deg. C to 40 deg. C by 0.1 deg. C step. Also setting in deg.F(59°F ~104°F, 1°F step) is available.
- Can convert density/specific gravity to concentration value and display the result. 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.

Specification : See page 8

The DA-100 has built-in thermostat to enable stable temperature control, and density/specific gravity is measured quickly and precisely.

Accuracy of measurement is $\pm 0.001\text{g/cm}^3$ by measuring resonant frequency.



Option: Auto sampling Unit ASU-100, and Printer IDP-100 are available.

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Specifications of Density/Specific gravity meters and Concentration meters

Type and Model name		DA-100 Density/ Specific gravity meter	DA-130 Density/ Specific gravity meter	WBA-504 General Concentration meter	WBA-505/WBA-505B General concentration M. / Beer analyzer
Measuring method		Resonant frequency detection		Density: Resonant frequency detection Refractive Index: Detection of critical angle with Na-D line	
Measuring range		0 ~ 3g/cm ³	0 ~ 2g/cm ³	Density: 0 ~ 3g/cm ³ Refractive: 1.32 ~ 1.70	Density: 0~3g/cm ³ Refractive: 1.32~1.58
Measuring temperature		15 ~ 40°C ; 59 ~ 104°F	0 ~ 40°C	15 ~ 50°C	
Accuracy	Density	± 0.001g/cm ³ When calibrated by pure water and dry air		± 0.00005g/cm ³	
	Refractive index	N/A		± 0.0001	± 0.00005(R.I.1.32 ~ 1.40) ± 0.0001 (R.I.1.40 ~ 1.58)
	Temperature	± 0.5°C	N/A	± 0.05°C	
Minimum sample required		2 mL		6 mL	
Auto viscosity correction		Not available		Built-in	
Measuring time		1 ~ 4 minutes by manual		1 ~ 4 minutes by manual 2 ~ 10 minutes by programmed	
Display		LCD with back light			
Sampling		Manual by syringe Auto by ASU-100 (option)	Manual by hand pump	Manual by syringe Automatic by DCU-551Auto Clean and Sampling unit(option)	
Calibration		Air & Water		"Air & Water" and "Other STD"	
Auto statistical data		N/A		Mean value; Standard deviation (SD); Relative SD	
Recalculation		N/A		Data can be recalculated	
Printout		IDP-100 impact dot printer(Optional)			
Data I/O		N/A		PC card (option) for additional data storage and application method	
External control		RS-232C (1 channel)	IrDA personal computer	Personal computer: RS-232C serial interface External printer: RS-232C serial interface AUX (Barcode): RS-232C serial interface Sample changer: Serial interface PC card: Conform to PCMCIA standard	
Power source		AC100 ~ 115V or AC220~240V ; 50/60Hz	Alkaline AAA dry cells 1.5V x 2	AC 100 ~ 120 or AC200 ~ 240V ; 50/60Hz	
Power consumption		Approx. 30W	N/A	Approx. 140W	
Dimension		275(W)x350(D)x165(H) mm	65(W)x115(D)x333(H) mm(with sampling tube)	288 (W) x 468(D) x 442(H) mm	
Weight		Approx. 6kg	Approx. 360g	Approx. 19kg	
Supplied parts		Power cord 1 pce. Sampling syringe 10 pcs. Sampling/Drain tube 2 pcs. Tube joint 2 sets Desiccant 1 pce. Desiccant tube 1 pce. Surge prevention fuse 2 pcs. Operation manual 1 pce. Others	N/A	SOFT-CAP/Beer 1 pce. (WBA-505B only), Power cord 1 pce., Desiccant 1 pce., Desiccant tube (with joint) 1 pce., Sampling tube (with joint) 1 pce., Silica gel (500g) 1 pce., Connecting tube A (with joint) 1 pce., Connecting tube B (with joint) 1 pce., Operation manual 1 pce. Others	

Technical data of WBA-505B Beer Analyzer

Measuring objectives	Item	Resolution	Repeatability	Range
	Alcohol	0.01 wt%	±0.02 wt%	0 ~ 8 wt%
	Real extract	0.01 wt%	±0.02 wt%	0 ~ 12 wt%
	Original extract	0.01 °P	±0.05 °P	0 ~ 20 °P
	Apparent extract	0.01 °P	±0.01 °P	0 ~ 20 °P
	Real fermentation	0.01%		
	Apparent fermentation	0.01%		