Density Meter

The Alpol-D50 fully automatic density meter employs the U-tube oscillation principle, seamlessly integrating Peltier precise temperature control technology and high-definition video camera technology. It not only provides users with accurate, stable, and reliable test results but also offers an efficient and convenient testing experience. High-definition video makes it easy to see if there are any bubbles affecting the sample. Using pulse excitation and high-precision detection technology, it allows users to accurately and quickly measure the sample's density and related parameters



Alpol-D50 Automatic Density Meter

Application Area

Pharmaceutical industry: quality control of active pharmaceutical ingredients and pharmaceutical intermediates, determination of the proportion and density of agents;
Flavoring: raw material inspection of edible flavoring, daily use flavoring, tobacco flavoring and food additives;
Petrochemical industry: crude oil API index, gasoline and diesel density detection, additive mixing process monitoring;
Beverage industry: measurement of sugar concentration, alcohol concentration, beer quality control, soft drink quality control;
Food industry: grape juice, tomato juice, fructose syrup, vegetable oil and soft drink processing quality control;
Brewery industry: detection of alcohol concentration of liquor, rice wine, red wine, beer, fruit wine, rice wine and so on;
Chemical industry: testing of urea, detergent, ethylene glycol, acid and alkali concentration and ammonia water concentration in chemical industry;
Mechanical manufacturing: metal processing, machine manufacturing, automobile industry, electronic and electrical cleaning agent testing;
Testing institutions: standard laboratories, statutory testing institutions, third-party testing of liquid density measurement.

Innovation Points to Improve Efficiency

- Automatic integration, AI automatically sets parameters
- HD video avoids bubble effect
- Compliance with 21 CFR Part 11, audit trail, pharmacopoeia and electronic signature
- Built-in Peltier temperature control to improve accuracy and stability
- Data can be printed directly through the printer

The Key Technical Indexes

Measurement range	0 g/cm³ to 3 g/cm³
Resolution	0.0001g/cm³
Repeatability	± 0.0002g/cm³
Accuracy	±0.0003g/cm³
Injection mode	Fully automatic (compatible with manual)
Temperature control method	Peltier temperature control
Temperature control range	0℃-55℃
Temperature control stability	±0.01℃
Display mode	10.4 inch FTF color touch screen
Linked use	Supports density folding linked use and displays the linked use interface
Data storage	32G
Output mode	USB, RS232, RJ45, SD card, U disk
User management	There are / four levels of permission management
Audit trail	Yes
Electronic signature	Yes
Custom method library	Yes
Export file verification high level protection MD5	Yes
Viscosity compensation	Built-in viscosity compensation, which can be displayed on the software
Export in multiple file formats	PDF and Excel
Size	480 mm x 320 mm x 200 mm
Weight	8kg
Power supply	110V-230V 50HZ/60HZ