

# Density Meter DS7400 | DS7500

Digital density meter measures density, specific gravity and concentration of liquid solutions within the range of 0.70000 - 1.30000 g/cm<sup>3</sup>.

Measurement is based on a further development of the oscillating u-tube method. Due to this micromechanical setup, the temperature sensor is placed close to the sample and measures the sample temperature directly.

Micromechanical measuring cell needs only 80 µl sample quantity with integrated temperature measurement of the sample.

Validation can be provided by our technical service team.

Built-in Peltier thermostat with high accuracy for temperature control and repeatability of ±0.02 °C.

Special field of application: the GLP / GMP range.

Separate desiccation unit available.



## Fields of application:

Determination of mixing ratios, quality and quantity inspection in the following industries:

- Chemical industry
- Pharmaceutical industry
- Cosmetics industry
- Beverage industry / breweries
- Food industry
- Sugar and sweetener industry
- Pulp and paper industries
- Electronic industry
- Petrochemical industry
- Wastewater management

## Features at a glance

- Compact measurement cell with high resolution
- User-friendly touch-screen operation in 6 languages
- Data export (e.g. in Excel format) to a USB flash drive
- Various programmable measurement units
- Password-protected user management (optional)
- User-friendly RS-232, USB and Ethernet interfaces for direct connection to a PC
- Data display of all important settings and measurements
- 32-bit processor
- Integrated high-accuracy Peltier thermostat
- Separate desiccation unit available
- SQL database
- NIST-compliant calibration certificate
- Full GLP suitability
- Low wastage of samples

## Specifications

- |   |  |
|---|--|
| • Measurement range                                     | <b>DS7500:</b> 0.70000 - 1.30000 g/cm <sup>3</sup><br><b>DS7400:</b> 0.7000 - 1.3000 g/cm <sup>3</sup> |
| • Accuracy of measured value                            | <b>DS7500:</b> 0.00005 g/cm <sup>3</sup><br><b>DS7400:</b> 0.0001 g/cm <sup>3</sup>                    |
| • Repeatability of measured value                       | <b>DS7500:</b> 0.00001 g/cm <sup>3</sup><br><b>DS7400:</b> 0.0001 g/cm <sup>3</sup>                    |
| • Sample volume by manual injection                     | ca. 0.3 ml   |
| • Temperature range                                     | 5 – 60 °C  |
| • Reproducibility                                       | ±0.02 °C   |
| • Max. dynamic viscosity of sample                      | 5 mPa s (cps)  |
| • Measurement time                                      | ~ 1 s  |
| • Calibration   | with air and distilled water   |
| • Case  | Cast aluminium   |
| • Sample dish   | Stainless steel  |
| • Display   | LCD TFT 5.7 ", 320x240 Px  |
| • Interface   | RS232, USB, Ethernet   |
| • Working voltage                                       | 90 - 264 V, 50/60 Hz, 260 W  |
| • Ambient temperature                                   | 10 - 40 °C   |
| • Calibration of the measured value                     | 4 - 10 supporting points<br>3rd-degree polynomial  |
| • Number of customized methods                          | 990  |
| • Measurement storage / control                         | 999  |
| • Printer port  | yes  |
| • USB flash drive for data transfer and firmware update | yes  |
| • User management (can be switched off)                 | yes  |
| • Password protection                                   | yes  |
| • LIMS port   | possible   |