

# Density Meter DS7800 | DS7900

Digital density meters with up to five decimal places for measuring density, relative density and concentration of aqueous solutions in a range of 0.00000 – 1.99999 g/cm<sup>3</sup>. Measuring method is based on established oscillating U-tube technology. The U-tube made of glass is monitored through the window to ensure that no gas bubble falsifies measurement results.

The device has a high-precision recirculation air-temperature control based on a Peltier element. Calibration is performed with pure water and dry air.

A dry-air unit and a peristaltic pump for sample handling are included.

The operation is intuitive and done by a user-friendly touch screen. All important settings are visible on the main screen and stored in an SQL data base together with measuring results. Data storage covers last 999 measurements.

An activatable three-level user administration with password protection makes the DS7000 series particularly suitable for use in GLP/GMP regulated industries.



## 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 industry
- Electronic industry
- Petrochemical industry
- Wastewater management

## Features at a glance

- Oscillating u-tube measurement cell with high resolution
- Desiccation unit and peristaltic pump included
- Integrated high-accuracy Peltier thermostat
- User-friendly touch-screen operation in 6 languages
- Data display of all important settings and measurements
- Various programmable measurement units
- Password-protected user administration (optional)
- User-friendly RS-232, USB and Ethernet interfaces for direct connection to a PC
- Data export (e.g. in Excel format) to a USB flash drive
- Firmware update by USB memory stick
- 32-bit processor
- SQL database
- NIST-compliant calibration certificate
- Full GLP suitability
- Low consumables costs

## Specifications

- **Measurement range**  
**DS7900:** 0.00000 - 1.99999 g/cm<sup>3</sup>  
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- **Accuracy of measured value**  
**DS7900:** 0.00005 g/cm<sup>3</sup>  
**DS7800:** 0.0001 g/cm<sup>3</sup>
- **Repeatability of measured value**  
**DS7900:** 0.00001 g/cm<sup>3</sup>  
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- **Sample volume by manual injection**  
approx. 2 ml
- **Temperature range**  
10 – 40 °C
- **Reproducibility**  
±0.02 °C
- **Measurement time**  
~ 1 s
- **Ambient temperature**  
10 – 40 °C
- **Calibration**  
with dry air and distilled water
- **Manufacturer's calibration**  
4 – 10 supporting points  
3rd-degree polynomial  
Cast aluminium
- **Case**  
LCD TFT 5.7", 320x240 Px
- **Display**  
RS-232, USB, Ethernet
- **Interfaces**  
90 – 264 V, 50/60 Hz, 60 W
- **Power supply**  
99 freely definable methods
- **Methods**  
999 last measurements
- **Result storage**  
serial
- **Printer port**  
activatable
- **User administration**  
activatable
- **Password protection**  
possible
- **LIMS access**