HANDHELD DENSITY METER – DDM29

Temperature Controlled Measurements at 20° and 25°C

The problem with most handheld Density Meters is they drift because they do not control temperature. Density Meter measurements are highly sensitive to temperature and mathematically correcting for temperature may not be good enough for some applications. Only temperature control will result in the accuracy many users require. The Rudolph DDM 29 utilizes powerful and compact Peltier technology to control the sample temperature for precise heating and cooling this ensures stable and accurate measurements at either 20° or 25°C.

Rugged U-Tube for durability in the Field

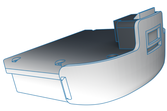
The Rudolph DDM29 has a 316 Stainless Steel, W-Tube instead of a glass U-Tube which is extremely durable, corrosion resistant and cannot be broken. This type of durability is preferable for customers who are tired of replacing glass U-Tubes in other manufactures' handhelds. Rudolph's W-Tube facilitates excellent accuracies and measurement speeds demonstrating 3 decimal place measurement readings in 30 seconds, and 4 decimal measurements in 60 seconds. An Internal Barometer permits Automatic Calibration.

User friendly GUI and Bright, Back Lit, Touch Screen Display

Extremely easy to use Graphic User Interface (GUI) and the availability of 10 different Languages on a brightly lit 7 inch(128mm) touch screen makes this the most User Friendly Density Meter in the market today. The interface is a bright, LED touchscreen, with large easy to navigate GUI. No more difficulties reading measurements in bright or dark environments.

Laboratory Accuracy – Everywhere You Need to Measure

Most Handheld Density Meters provide for 2 or 3 digit accuracy and measurements are prone to drift. By combining state of the art design, and Peltier Temperature Control, Rudolph provides accuracy to the 4th decimal place. Laboratory accuracy in the field eliminates rechecking of materials in the Lab allowing users to test right in the field, on the receiving dock, or in a formulations area.



Handheld Density Meter Portability and Flexibility

The DDM29 is powered by a Lithium-Ion battery that is easily recharged, your DDM 29 is ready to go everywhere you need to make measurements. This might be at the loading dock when receiving incoming raw goods or out on a distillery floor. The Lithium Ion battery can be charged in approximately 2 hours providing up to 4 hours of constant measurements under heavy usage or 8 hours of normal usage. Included is a Charging Station for convenient stationary charging.

Flexible Method Management

Factory installed measurement methods cover a wide group of industries and applications. Instrument is factory configured with over 50 density to concentration tables which include Brix, Alcohol, API, and most common chemicals, as well as unlimited number of additional tables, polynomials, and formulas may be added.

- Essential Oils
- Chemicals
- Beer, wort, and fermentation monitoring
- Raw material soft drink monitoring
- Monomers, Polymers and Elastometers
- Pharmaceutical raw materials and finished products
- Wort, juice, fermentation, spirits safe monitoring
- Blending, bottling, spirits and liquors packaging
- Sulfuric Acid in lead-acid batteries
- Adhesives, glues
- Agriculture, chemicals and fertilizers
- Colloids, nanotechnology
- Surfactants, detergents
- Emulsions
- Paints, Inks, Toners
- Organic, inorganic chemicals
- Fuel cells, power generation, sustainable fuels
- Soft drinks, juices, tea, coffee
- Petroleum samples according to ASTM methods

For unique measurement applications, easily create a measurement method for your sample. You may use Concentration Tables, Formulas and Polynomials to match the measurement methods used in your laboratory or field application.

Industry Applications For Handheld Density Meters

Technical Specifications DDM29 Handheld Density Meter

Accuracy	Density: 0.0005 g/cm3* | Temperature: ±0.01°C
Repeatability (Standard Deviation)	Density: 0.0003 g/cm3 | Temperature: ±0.02°C
Temperature Control (Controlled via Peltier)	20°C or 25°C
Ambient Temperature	0°C to 35°C (32°F–95°F)
Pressure Range	0 to 10 bar (145 psi)
Measurement Modes	Continuous, Single, Multiple
Measurement Technique	Mechanical Oscillating Principle
Measurement Range	Density: 0-3g / cm^3
Minimum Sample Volume	Approx 1-2 mL, depending on injection method
Wetted Materials	316 Stainless steel, Teflon PTFE, ECTFE, PVD, FFKM
Supported Scales	Density, Specific Gravity, Alcohol Tables, Sugar/Extract, API functions, H2SO4 tables, acids, bases, organic and inorganic chemicals, virtually unlimited programmable, and custom specific scales.
Operating System	Flexible and capable Android OS
Measurement Time	Typically 10 – 15 seconds after thermal equilibration
Display	Bright LED – 7" touch screen, 1024x600 resolution
Communication Interfaces	USB-C, WiFi, BlueTooth, Manual Entry, RFID, and Barcode Reader for entering sample IDs. Wireless Printing Via Airprint
Remote Support	Troubleshooting, Diagnostics, Software Updates available via the Internet
Internal Memory	Up to 3,000 Measurements
Operating Dimensions	7.28" (L) x 4.83" (W) x 13.59" (H) 18.49 cm (L) x 12.27 cm (W) x 34.52 cm (H)
Shipping Dimensions	24.5" (L) x 17.5" (W) x 22" (H) 62cm (L) x 44cm (W) x 56cm (H)
Operating Weight	3.6 Lbs.
Power Supply & Charging	Rechargeable Lithium Ion Battery
Battery Longevity	4-8 Hours depending on usage level
Included with Instrument	Battery Charging Station, Syringes, Calibration Certificate, Operating Instructions
Handheld Density Meter Warranty	1 Year Warranty

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