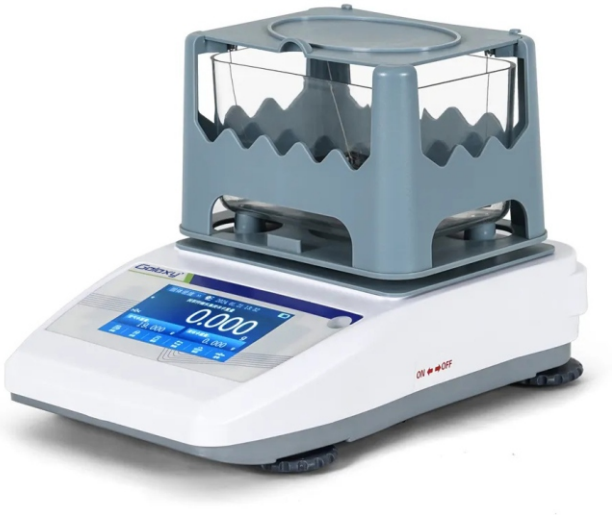
Galaxy

LABORATORY & INDUSTRIAL SOLUTIONS

Densitometer / Density Meter for Solids

MODEL: PG-DM1



SALIENT FEATURES:

- Even can measure floating samples
- No need of manual calculation
- Easy measurement within 10 seconds
- Easy to use touchscreen and easy to use UI
- Water as well as any other liquid medium can also be used.

SPECIFICATIONS:

Model	PG-DM1
Make	Galaxy
Density Range	0.001 to 99.999g/cm^3
Sample Types	Any irregular solid, particle,
	or floating body with density >1or <1
Max Weighing Capacity	220g
Weighing Resolution	0.001g (1mg)
Units	Density, volume, volume percentage,
	porosity, water absorption,
	average density,
	minimum density, maximum density
	± 0.005 g
Display	4.5" Touch Screen
Sensor	German Loadcell
Calibration	10 to 40°C
No. of Storage	100 memories
Output	RS232C
Power Supply	AC 220V / 50 Hz
Dimensions & Weight	200 × 290 × 200 mm & 3 kg

Quick Measurement

STANDARD ACCESSORIES:

- Acrylic Tank • Adapter
- Airtight windshield
- Stainless Steel angle
- Anti-floating frame
- Floating sample ball
- Tweezers • Thermometer
- Instruction Manual

Solid density meter applications

Core principle: Based on Archimedes' water displacement method, it is suitable for solid products that are insoluble in water and do not absorb water.

Product Category	Specific Examples	Common Density Range (g/cm³)	Purpose of Testing
Metals & Alloys	Aluminum, Copper, Iron, Steel, Titanium Alloy	2.0 - 19.0	Material identification, alloy grade distinction, quality control.
Plastics & Rubbers	PVC, PP, PE, Silicone, Tire Rubber	0.8 - 2.2	Raw material identification, filler analysis, product consistency.
Ceramics & Building Materials	Alumina Ceramic, Tiles, Cement Products, Glass	2.0 - 4.0	Evaluate sintering degree, porosity, product grade and strength.
Minerals & Rocks	Quartz, Calcium Carbonate, Coal, Various Ores	1.0 - 5.0	Mineral identification, grade assessment, sorting, and trade pricing.
Electronic Components	Magnets, Semiconductor Wafers, Electronic Ceramics	1.5 - 7.0	Control material purity, ensure product performance and reliability.
Research & New Materials	Composite Materials, Porous Materials, 3D Printed Parts	0.1 - 3.0	Study material properties, analyze porosity, optimize formulas.

Precious metal densitometers applications

1.Core principle: Converting density into purity

2.Specialization and Limitations of Precious Metal Densitometers:

a).Advantages:

"For precious metal testing, our densitometer provides a rapid, non-destructive, and extremely accurate initial screening method, capable of immediately identifying obviously adulterated items."

b).Risk Warning (Demonstrating Professionalism):

"It must be explained to clients that the densitometer has limitations against high-tech counterfeiting methods such as internal tungsten encapsulation. It is the most important process control tool, but for final arbitration, it still needs to be used in conjunction with more sophisticated instruments such as X-ray fluorescence spectrometers."

Product Category	Common Forms	Theoretical Density Reference (g/cm³)	Corresponding Purity Range
Gold (Au)	Gold Bars, Jewelry, Coins	Pure Gold (24K): ~19.32	24K (≥99.0%), 22K (~91.6%), 18K (~75.0%), 14K (~58.3%)
Platinum (Pt)	Platinum Jewelry, Industrial Catalysts	Pure Platinum: ~21.45	PT999 (≥99.9%), PT950 (≥95.0%), PT900 (≥90.0%)
Silver (Ag)	Silver Bars, Jewelry, Utensils	Pure Silver: ~10.49	S999 (≥99.9%), S925 (92.5% Sterling Silver)
Karat Gold / Mixed Gold	Two-tone/Three-tone Jewelry, Karat Gold Jewelry	Between its component metals	Infers gold content by density value, identifies adulteration.