Anton Paar

DMA 500

Density/Specific Gravity/ Concentration Meter

::: Unique Density & Concentration Meters

Density. It's that simple.

Density measurement of liquids and gases is a proven method for analysis and quality control in numerous industries. It enables you to reliably determine product-specific parameters and concentrations of binary mixtures.

Since Anton Paar introduced digital density measurement in 1967, the company's renowned DMA density meters based on the oscillating U-tube principle have been advanced over decades in direct response to customers' needs.

The DMA 500 density meter now gives your analysis a strong spin towards simplicity, providing you with renowned DMA quality at the push of a button. Benefit from high-end accuracy and functionality condensed into a compact, stand-alone package solution.

Your measurements are safe against voltage fluctuations and power outages, as DMA 500 carries an integrated rechargeable battery. Building on this uninterruptible power supply, you can easily take your density lab off the line.

DMA 500. It's that simple.

DMA 500 takes your liquid quality control to new places:

In the lab
DMA 500 is designed to make life in your lab easier. Providing all functionalities to support your daily work, its ease of use is unrivaled.

On the road
Perform off-the-line measurements outside the traditional lab space. With a DMA 500 in your mobile lab, you are ready to measure off the beaten track.

Near the sample
Save time by measuring your samples at their location: The compact DMA 500 fits into the tight spaces near production lines or storage tanks.

Good Morning Density

Starting up with DMA 500 makes for a good morning in your laboratory: It's essentially ready once it's out of the box. This ease of use extends to the instrument's entire operation, ensuring many comfortable mornings and days after that.

(1) Ready to go once out of the box

To start measuring with DMA 500, simply switch it on and you are ready to go. The self-explanatory user interface allows you to single-handedly operate the instrument within a few moments.

(2) Displays any measuring unit you require

Select one of 20 freely configurable methods, each including a setup of up to two measuring units and a temperature (e.g. the method "Soft Drink" for measuring the density and sugar content in °Brix at 20 °C). Choose from numerous predefined measuring units for the most important applications or define your own customized units.

(3) Ensures reliable filling and full traceability

Correct results strongly depend on bubble-free filling, ensured by DMA 500's optionally integrated peristaltic pump. If preferred, you can also fill the sample manually using a syringe. The FillingCheck™ feature automatically detects filling errors and gas bubbles in the filled sample and generates a warning message.

With the U-View™ feature, you can visually inspect the measuring cell by means of a real-time camera. Pictures of the measuring cell are saved with the according measuring data, ready to be recalled for verification of correct sample filling any time later.

The instrument's sample identification ensures full traceability of your results, saving and displaying these with identification data such as sample type, batch number, user, instrument, location and more. For instant identification, you can also connect a bar code reader.

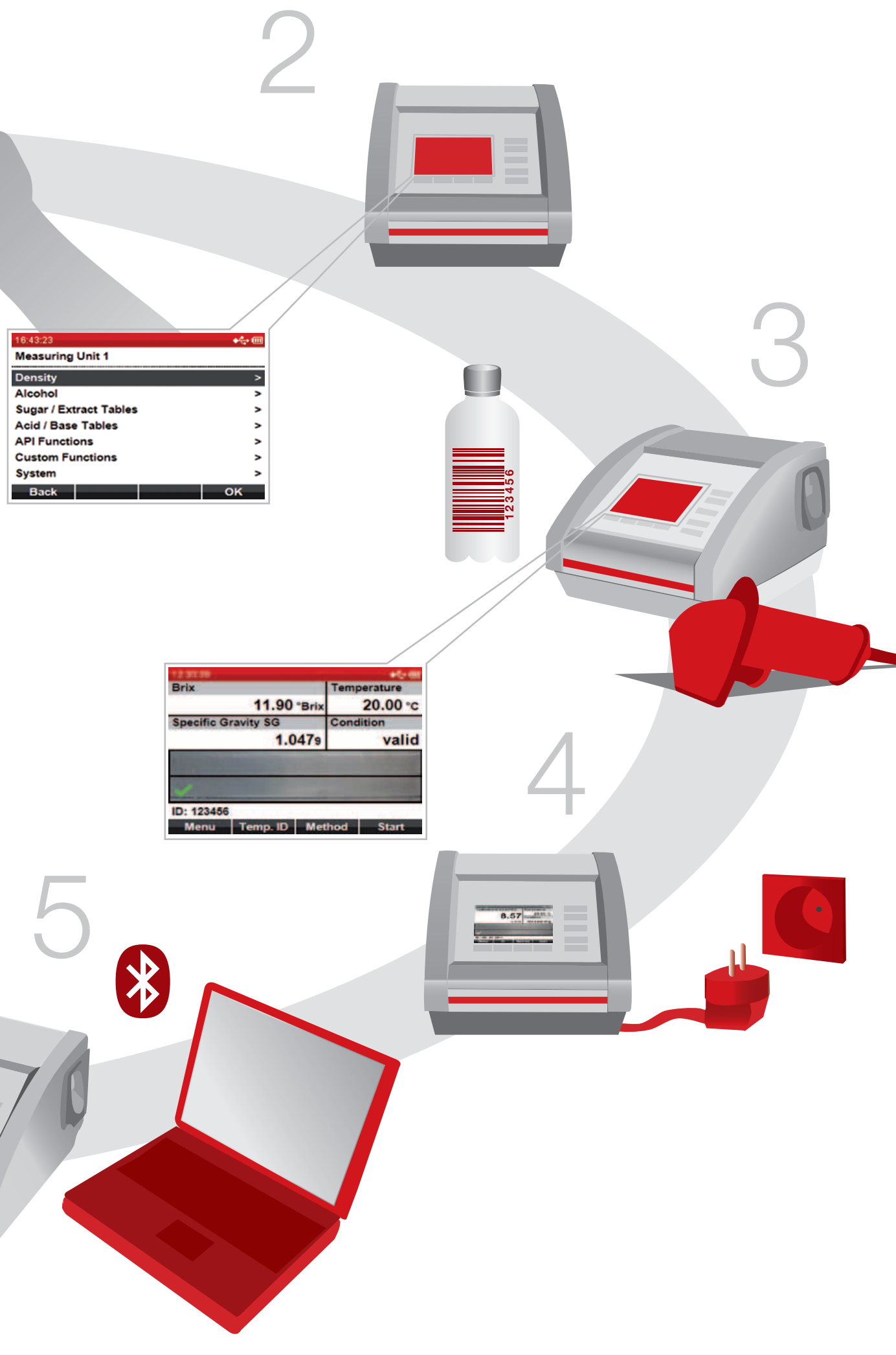
DMA 500 provides you with additional safety for measuring highly viscous samples: The instrument's viscosity correction compensates potential viscosity-related errors.

(4) Ready for off-the-line operation

Voltage fluctuations or power outages are no threat for DMA 500. The instrument automatically switches to the battery-operated mode for up to 6 hours of off-the-line operation. You can continue your measurements as planned without losing any data and time.

(5) Wide range of communication options

Printing stored data on the optional Bluetooth printer or exporting data to a PC via Bluetooth or USB allow for fast and simple documentation. Firmware updates, custom functions and instrument backups are also conveniently transferred from or to external devices.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Measuring Unit 1
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Sugar / Extract Tables >
Acid / Base Tables >
API Functions >
Custom Functions >
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3
123456
Brix
11.90 °Brix
Temperature
20.00 °C
Specific Gravity SG
1.047g
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Menu
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Technical Specifications

Measuring range	
Density	0 g/cm^3 to 3 g/cm^3
Temperature	15 °C to 40 °C
Pressure	0 bar to 3 bar
Accuracy	
Density	0.001 g/cm^3
Temperature	0.3 °C
Repeatability s.d.	
Density	0.0002 g/cm^3
Temperature	0.1 °C
Maximum off-the-line operation	2 hours (6 hours with optional high-performance battery)
Minimum sample volume	approx. 1 mL
Predefined tables and functions	Alcohol tables, sugar/extract tables, acid/base tables, API functions, ten programmable custom functions
Materials in contact with sample	PTFE, borosilicate glass
Dimensions (L x W x H)	210 mm x 200 mm x 135 mm
Weight	2.5 kg
Power supply	AC 100-240 V, 50/60 Hz, 1.4 A; DC 12 V, 5 A
Rechargeable battery type	Li-Ion 7.4 V, 2.25 Ah (optional: Li-Ion 7.5 V, 4.8 Ah)
Controls	Softkeys, optional keyboard or bar code reader
Communication interfaces	1 x Bluetooth, 1 x Ethernet, 2 x USB
Internal storage	1000 measured results
Options	DMA 500 with integrated peristaltic pump DMA 500 with high-performance battery (for up to 6 h off-the-line operation)
Available accessories	Bluetooth adapter for PC Portable thermal printer with Bluetooth interface

STABINGER MESSTECHNIK

Developed in cooperation with Labor für Messtechnik Dr. H. Stabinger GmbH, Graz

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Instruments for:
Density & concentration measurement

Rheometry & viscometry

Sample preparation

Microwave synthesis

Colloid science

X-ray structure analysis

Refractometry

Polarimetry

High-precision temperature measurement

Specifications subject to change without notice

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