Anton Paar

Density and Concentration Meters

DMA: Portable and Benchtop

The DMA: Always Superior

Invented as the world's first digital density meter, the DMA has hundreds of thousands of satisfied customers – in the field, on the production floor performing high-throughput QC, and driving precision R&D. Modularity and multiparameter analysis empower individuality. It is built to operate flawlessly even in challenging conditions where other instruments fail. And its borosilicate glass measuring cell is handcrafted – by us.

We're the market leaders, but we don't stand still.

For you, we always lead the way.

The DMA: Always superior.

Density accuracy: 0.000005 g/cm³

-10 °C to +200 °C and up to 1,400 bar

ISO 17025- and 17034-certified

Compliant with ASTM, ISO, and Pharmacopoeia

30+ multi-parameter instrument modules

20+ density meters

AP Connect lab execution system

Analytical instrument system qualification (AISQ+)

35+ subsidiaries offering local support

100,000+ installations worldwide

50+ years of unrivalled experience

Always-Superior Density Meters

> **True innovation isn’t just about technology, leadership, and top features – it’s about people.**

Application expertise: More than 55 years
Researchers around the world trust the DMA density meter. Quality control managers across every industry for big and small companies rely on them everywhere. They all know that more than five decades of partnership and application expertise guarantee reliable measurement.

Perfect simplicity: 4U
One-touch measurement, automatic bubble detection, selectable industry profiles, and guided workflows – the simplicity of perfection.

1. U-Tube: Best-in-class sensors
2. U-View™: Automatic sample monitoring via camera
3. U-Dry: Simple drying of the density cell
4. U-Pulse: Patented Pulsed Excitation Method

Accuracy: 0.000005 g/cm³
The superior accuracy of the DMA density meters ranges from three to six digits and provides best-in-class performance. Backed by the precision of Anton Paar’s hydrostatic balance and unaffected by the surrounding environment, including altitude and temperature, or by the nature of the sample itself (e.g., viscosity), they deliver exceptional reproducibility time and time again.

Compliance with 80+ industry standards
Whatever the industry, DMA density meters support users to meet regulatory requirements, facilitate audits, and strengthen legal protection. They deliver traceable results and full compliance with major petroleum and pharmacopeia standards. Additionally, ISO 17025-accredited calibration and ISO 17034-certified reference materials ensure peace of mind.

85+ service stations and a 3-year warranty
Our instruments are famously durable, but if support is required, a global service network expert responds within 24 hours – speaking the local language. Every time a new instrument generation is launched, spare parts for predecessor instruments are guaranteed for at least 10 years.

ISO 17025 and ISO 17034 certification
Rely on a unique combination of minimal measuring uncertainty – built on reference to Anton Paar’s hydrostatic balance – and continuous monitoring via ISO 17034 accreditation. This ensures measurements are always of the highest quality.

- **Accuracy: 0.000005 g/cm³**
- **U-Pulse technology: Patented Pulsed Excitation Method**
- **Reference oscillator: Drift-free measurement**
- **Gold-coated borosilicate glass**
- **Minimal sample volume: 1 mL**
- **Direct-contact platinum-resistant temperature measurement**
- **Filled with noble gas for temperature equilibrium in just seconds**
- **Robust, lightweight, and portable option**
- **Two-step simplicity: Fill, result**
- **Excellent chemical compatibility**

Glass Oscillator Pioneers: Predicting Tomorrow

U-Pulse technology: The trusted Pulsed Excitation Method delivers unmatched performance and sets new standards in density measurement.

Powering Potential

Market Leader

DMA 35 Standard, DMA 35 Ex, DMA 35 Ex Petrol, DMA 35 Ampere
Portable density meter

- Accuracy: 0.001 g/cm³
- Results from a 2 mL sample in seconds
- One device to replace all glass hydrometers and pycnometers in the workplace
- Fast sample processing with an RFID interface and Bluetooth® capability
- Fermentation monitoring including visualization
- Intrinsically safe device
- Lightweight
- No active temperature control required

DMA 502, DMA 1002
Advanced 3- and 4-digit density meters

- Accuracy:
  DMA 502: 0.001 g/cm³
  DMA 1002: 0.0001 g/cm³
- U-Pulse, U-View™, FillingCheck™
- One-touch measurement
- Filling support via Xsample 200 or a funnel
- Equipped with more than 140 concentration tables
- Rugged, splash-proof design for the toughest conditions

DMA 1002 Petro, DMA 1102 Petro
Compact benchtop density meter

- Accuracy: 0.0001 g/cm³
- Designed for the petrochemical industry
- High sample throughput via the Simple Fill funnel
- Compliant with ASTM standards
- Rapid change of measurement temperature
- Automated rinsing and drying
- Battery-powered operation

Top Seller
DMA 5002

DMA 4002, DMA 5002, DMA 6002
Modular benchtop density meter

- Accuracy:
  DMA 4002: 0.00005 g/cm³
  DMA 5002: 0.00001 g/cm³
  DMA 6002: 0.000005 g/cm³
- U-Pulse, U-Dry, U-View™
- One-touch measurement
- Status light and syringe illumination
- Modular extensions available
- Full automation via Xsample series
- Results with four-digit accuracy in 20 seconds

DMA 6002 Sound Velocity
Combined density and sound velocity meter

- Accuracy:
  Density: 0.000005 g/cm³
- Repeatability:
  Sound velocity: 0.1 m/s
- U-Pulse, U-Dry, U-View™
- One-touch measurement
- Syringe and status light
- Modular extendable
- Full automation via Xsample series

DMA 4200 M, DMA HPM
High-pressure and high-temperature density meters

- Accuracy: 0.0002 g/cm³
- Density measurement under extreme conditions
- Measurement temperature up to 200 °C
- Operating pressure up to 1,400 bar
- Hastelloy C-276 U-Tube

Applications

Beverages
Fermentation monitoring
Lead battery acid determination
On-site petrochemical analysis
Chemicals

Beverages
Pastes/creams
Pharmaceuticals
Petrochemicals
Chemicals

Petrochemicals

Applications

Beverages
Pharmaceuticals
Petrochemicals
Chemicals
Flavors and fragrances

Soft drinks
Sulfuric acid and oleum range
Formaldehyde/methanol/water
Two- and three-component solutions
Compressibility analysis
R&D applications

Petrochemicals
PVT analysis of crude oil
Enhanced oil recovery (EOR) experiments
Chemicals
R&D applications

DMA 35 Standard, DMA 35 Ex, DMA 35 Ex Petrol, DMA 35 Ampere

Measure Everything, Everywhere

The DMA 35: Instant measurements, everywhere – from tank trucks and wine cellars, to submarines and hazardous areas. Just 2 mL of sample is directly filled at up to 100 °C using the built-in pump. Results are there in seconds.

DMA 35

Market Leader

Density accuracy
0.001 g/cm³

Temperature range
0 °C to 40 °C

Speed + ease of use
- No temperature equilibrium requirement, due to automatic temperature compensation
- Consistency in every concentration measured
- Gesture control: One-handed measurements
- Filling in seconds with rugged built-in hand pump

Certified + built to last
- ATEX- and IECEx-certified: Safe measurements in hazardous areas
- Durable, compliant design for flammable samples, explosive atmospheres, and petroleum industry applications
- IP54 protection
- Robust hard-glass display
- Rubber-protected measuring cell: Long-lasting performance in harsh industrial and field conditions
- Replacement of all glass hydrometers in the workplace, with retention of expected accuracy

Connectivity + data management
- Up to 1,200 data points storable and exportable via Bluetooth® for secure, traceable handling
- AP Connect lab execution system, centralizing data from multiple devices
- State-of-the-art connectivity via Bluetooth® and RFID

DMA 502, DMA 1002

Tough Samples, Simple Solutions

The DMA 502 and DMA 1002 are consistent achievers. Specifically designed for heavy-duty industrial workspaces, they are splash-proof and protected from sample spills. Samples are filled via syringe, Xsample 200, or the filling funnel.

DMA 502

Density accuracy
0.001 g/cm³

Temperature range
15 °C to 40 °C

DMA 1002

Density accuracy
0.0001 g/cm³

Temperature range
15 °C to 60 °C

Intelligent support

- One-touch measurement: Measure at the push of a button
- Guided user workflows
- U-Pulse: 2× better viscosity correction
- Condition monitoring
- FillingCheck™ and U-View™: Monitoring of the quality of filling, alert delivery, and storage of a complete image for later verification

Maximum convenience

- Air boost: Saves up to 20 % of drying time
- Syringe holder: Adaptable for vertical or forward-facing installation enables ergonomic filling
- Splash-proof design: Protected from sample spills
- Compatible with syringe, Xsample 200, or filling funnel

Network and data

- Data export after every measurement via network file share or USB
- Compatible with AP Connect, Anton Paar's lab execution system

DMA 1002 Petro, DMA 1102 Petro

The Fastest Petro Density Meter

The DMA 1002 Petro and DMA 1102 Petro offer ASTM-compliant density measurement with a portable device – in the lab or at a remote location. Both instruments deliver fast, precise density results, while the DMA 1102 Petro provides essential information on the viscosity of the same sample.

DMA 1002 Petro

Density accuracy
0.0001 g/cm³

Temperature range
15 °C to 100 °C

DMA 1102 Petro

Density accuracy
0.0001 g/cm³

Temperature range
15 °C to 100 °C

Viscosity
0.3 mm²/s to 1,000 mm²/s

Compliance
- Measurement of ASTM D4052- and ISO 12185-compliant density to safeguard product properties and ensure successful quality control and trade.

Density and viscosity
- Simultaneous density and viscosity measurement saving time and maintenance
- Determination of essential parameters for petroleum samples (e.g., API gravity, °API for crude oil classification)

Automated filling and rinsing
- Sample is poured directly into the funnel for analysis
- Automatic cleaning and drying with an integrated air pump

Portability
- Portable device for unlimited flexibility in the workplace
- Battery-powered operation

Network and data
- Compatible with AP Connect, Anton Paar's lab execution system

DMA 4002, DMA 5002, DMA 6002

Best-in-Class Performance

The state-of-the-art DMA 4002, DMA 5002, and DMA 6002 density meters, equipped with automated functions, deliver unparalleled precision and reliability. Via 30+ modules, they can be expanded into measurement systems.

DMA 4002

Density accuracy
0.00005 g/cm³

Temperature range
0 °C to 100 °C

DMA 5002

Market Leader

Density accuracy
0.00001 g/cm³

Temperature range
0 °C to 100 °C

DMA 6002

Density accuracy
0.000005 g/cm³

Temperature range
0 °C to 100 °C

The DMA: Always superior

- Four-digit accuracy in 20 seconds
- U-Pulse: Patented Pulsed Excitation Method ensures market-leading precision, repeatability, and reproducibility
- Storage for 10,000 measurements
- Ultra-fast measurement mode boosts productivity
- Instant pass/fail QC decisions via definition of limits for different samples
- Full compliance with industry standards
- Up to six-digit accuracy
- Instruments and documentation approved for regulated markets

The power of multiparameter analysis

- Connection of the instrument to various Anton Paar measuring modules for a comprehensive measurement system
- All relevant QC parameters from one sample
- Measurement of up to seven parameters at once
- Increased efficiency, productivity, and safety with automated sample changers
- Measurement throughput boost and automation of cleaning routines with Xsample 370

Simplified workflows

- One-touch measurement: Measure at the push of a button
- U-Dry: Effortless drying with a simple hand gesture
- FillingCheck™: Detection of microbubbles in seconds
- U-View™: Zoomable image of the measuring cell
- Automatic compensation of temperature effects due to ThermoBalance™
- Guided user workflows
- Compatible with the AP Connect, Anton Paar's lab execution system
- Status light and syringe illumination

DMA 6002 Sound Velocity | DMA 4200 M | DMA HPM

Superior Instruments, for the Toughest Applications

Each of these instruments is built for challenging conditions. Each is unique on the market. Whether it's solutions for density analysis up to 200 °C and 1,400 bar or combined density and sound velocity measurement, these superior devices perform.

DMA 6002 Sound Velocity

Density accuracy
0.000005 g/cm³

Temperature range
0 °C to 100 °C

Sound velocity repeatability
0.1 m/s

- Density and sound velocity measurement combined in just one instrument: Best-in-class measurement performance
- Determines the concentration of two- and three-component solutions
- Two industry-specific profiles: "Beverages" and "Chemicals"
- One-touch measurement: Measure at the push of a button
- Power features: U-Pulse, U-Dry, U-View™, FillingCheck™, status light, and syringe illumination
- Automation: A broad variety of sample handling systems and sample changers covering automatic filling only, all the way to fully automated filling, measurement, and rinsing

DMA 4200 M

Density accuracy
0.0002 g/cm³

Temperature range
-10 °C to +200 °C

Pressure range
0 bar to 500 bar

- Highly specialized: A must-have for petroleum refinery labs, specially designed for heavy samples
- Measure at up to 500 bar: Determine density-pressure relations for every single pressure step; easily connect external pressure sensors and obtain pressure readings automatically
- Up to 200 °C – automatically set: The Peltier-controlled density cell enables analysis of samples over the entire temperature range
- Adapted to your needs: Suitable for a wide range of samples – from gases to LPG and heavy petrochemical samples

DMA HPM

Density accuracy
0.0001 g/cm³

Temperature range
-10 °C to +200 °C

Pressure range
0 bar to 1,400 bar

- External measuring cell is operable in glove boxes or in fully assembled racks
- Suitable for extreme pressure: Equally suited to research and petrochemical labs, with density analysis of samples at pressures up to 1,400 bar
- The smallest sample volumes: Requires just 2 mL of sample per analysis

Exceptional Operating Software

The intelligent instrument guides users through the measurement, while U-View™ and FillingCheck™ detect air bubbles and document them automatically.

Ready for regulated markets: An instrument that thinks

The software offers more than 140 conversion tables. Along with the operating systems, it also offers industry-specific profiles, and 30+ guided user workflows.

Smart features maximize efficiency. The new, automatic algorithm-driven FillingCheck™ enables fast sample throughput, industry profile customization, quick sample diagnostics, and reliable single measurements. The automated setup for the industry-specific user interface delivers an out-of-the-box measuring experience.

The AP Connect lab execution system optimizes safety, compliance, and paperless efficiency. It streamlines instrument data workflows in laboratories by providing seamless, efficient data management and integration for instruments. This ensures accuracy, data safety, compliance, and paperless efficiency in a centralized digital hub, which helps improve data quality and reduces overhead costs. The AP Connect Instrument Adapter enables connection to 70+ AP instruments as well as instruments from other vendors. A unified interface to a LIMS can be created and data can be accessed from across the company network.

Compliance with ASTM standards ASTM D4052, D5002, D1250, ISO 12815 petroleum standards, and all relevant pharmacopeias is assured. All major data integrity and traceability standards (e.g., 21 CFR Part 11) are included. Results are traceable to the International System of Units (SI) with ISO 17025 calibration from the accredited Anton Paar lab. Use of the Anton Paar ISO 17034-certified reference material for density ensures perfect calibration of the instrument.

Measurement System

Viscosity	Sound velocity	Color	Sample changer	Refractive index	Optical rotation
Lovis 2001	Included in DMA 6002 Sound Velocity	Option color for Alcolyzer	Xsample 630		
		Lovibond PFXi 195	Xsample 610		
			Xsample 530		
			Xsample 520	Abbemat 7201	
			Xsample 370	Abbemat 7001	
			Xsample 340	Abbemat 5201	
			Xsample 330	Abbemat 5101	MCP 150
			Xsample 320	Abbemat 5001	MCP 100

Available options

Choose from the following options and primary instruments

- → DMA 4002
- → DMA 5002
- → DMA 6002
- → DMA 6002 Sound Velocity

Add your documentation

- → IQ/OQ/PQ
- → AISQ+

Find out more

pH	Turbidity	Alcohol content	CO_2, O_2	Filling Device	Total Package Oxygen
pH 1101	Haze 3001	Alcolyzer 1001 Beer	CarboQC ME	SFD	TPO 5000
pH 1201	Haze 3001 Heavy Duty	Alcolyzer 3001 Spirits	CarboQC 1001	PFD	
pH 3101		Alcolyzer 3001 Sake	Option O_2 for CarboQC ME / 1001	PFD Plus	
pH 3201		Alcolyzer 3001 Wine	Option O_2 Plus for CarboQC ME / 1001		
		Alcolyzer 3001 Beer			
		Alcolyzer 3001			

Available options

Modular Extension

Viscosity

- Viscosity measurement according to the Hoeppler principle
- Wide temperature range (-30 °C to +100 °C)
- Determination of the dynamic, kinematic, relative, and intrinsic viscosity of liquids
- Capillaries available in different configurations, enabling a wide range of applications

Sound velocity

- Sugar inversion monitoring
- Determination of two- and three-component solutions
- Simultaneous density and sound velocity analysis for use in the chemical and beverage industries, as well as in R&D

Color

- Full system integration of Lovibond PFXi 195
- Simultaneous color measurement using Alcolyzer
- Full integration of color measurement into a measurement system, enabling simultaneous color determination via a single user interface
- Use of color measurement in the Alcolyzer system, or connection to third-party color instruments

Sample changer

- Full system automation for high sample throughput
- Elimination of handling errors and automatic cleaning procedures
- The widest range of sample changers on the market
- From automatic sample processing to cleaning with up to three rinsing agents

Refractive index

- Extension of the system to include refractive index
- Enhancement of quality control of liquids and the determination of alcohol and extract in liqueurs
- Multiparameter analysis for a wide range of QC applications

Optical rotation

- Integration of optical rotation to measurement system
- Compliance with all relevant standards enables simultaneous determination of optical rotation in a measurement system
- Product templates for beverages, pharmaceuticals, or R&D applications

pH

- Fully guided adjustment and calibration procedures
- pH measuring modules enabling simultaneous determination of pH and other quality parameters
- Versatile configurations allowing pH measurements at pressures of up to 6 bar in a variety of liquids, from beverages to chemicals

Turbidity

- Turbidity at angles of 0°, 25°, and 90°
- Temperature control
- Compliant, industry-proven ratio method for handling a wide array of products across industries such as pharmaceuticals and beverages

Alcohol content

- Direct alcohol determination via NIR spectroscopy
- Selective alcohol measurement delivering accurate results for beverages like beer, wine, and spirits – no need for product-specific calibrations

CO_2, O_2

- CO_2 in 55 seconds
- CO_2 and O_2 in 90 seconds
- Multiple-volume expansion method eliminating the influence of other dissolved gases like N_2 and O_2
- Option O_2 Plus: Easily retrofitted into new or existing CarboQC ME measuring modules

Filling device

- Filling from bottles and cans
- No loss of CO_2 or O_2
- Direct sample transfer from closed containers: Cans, glass bottles, PET bottles, or champagne bottles

Total Package Oxygen

- TPO, headspace O_2, and dissolved O_2
- Automatic rinsing
- Analysis in under four minutes

The Full Density Spectrum: Gas, Liquids, Solids

The density meters perform across labs and processes – from gas and liquid to semi-solid and solid, and from portable to top-notch benchtop devices. There are two techniques: the oscillating U-tube, or gas adsorption for solids and semi-solids.

Liquids	Semi-solids	Solids
		
DMA 35		
DMA 502, DMA 1002		
DMA 4002, DMA 5002, DMA 6002		
DMA 4200 M		
L-Dens 7400		
		Ultrapyc 3000, Ultrapyc 5000

Reliable. Compliant. Qualified.

Find out more

Our well-trained and certified technicians are ready to keep your instrument running smoothly.

Maximum uptime
Regardless of how intensively you use your instrument, we help you keep your device in perfect shape and safeguard your investment. For at least 10 years after the discontinuation of a device, we'll provide you with any service and spare part that you might need.

Warranty program
We're confident in the high quality of our instruments. That's why we provide a full 3-year warranty. Just make sure to follow the relevant maintenance schedule. You can also extend your instrument's warranty beyond its expiration date.

Short response times
We know that sometimes it's urgent. That's why we provide a response to your inquiry within 24 hours. We give you straightforward help from experienced people, not from bots.

Global service network
Our large service network for customers spans 85+ locations with more than 600 certified service technicians. Wherever you're located, there's always an Anton Paar service technician nearby.

Prepare for the Future

Inspired by 50+ years of experience, Anton Paar's analysis solutions anticipate future needs – so that businesses can grow.

Subsidiaries across the globe offering local support

100,000+ installations worldwide

The broadest density portfolio

Liquid, powder, or solid samples

Process instruments and software

Customized automation solutions from a single source

AP Connect lab execution system

- Next-level lab data management in existing and new labs
- Effortless compliance with regulatory requirements
- Paperless: Elimination of transcription errors for improved accuracy
- Centralization of data from Anton Paar and third-party instruments in one digital space
- Access to, and management of, lab data anytime, anywhere

Edge 7000 process controller

- Connection of process sensors, and display of values exactly where needed – even in the harshest environments
- A powerful process controller with state-of-the-art interfaces and CPUs, offering seamless monitoring across devices
- Cutting-edge performance with a 10.1" projective, multitouch display
- Long-term security and flexibility with a Linux-based operating system
- Platform-independent web-based management and user interface

L-Dens series inline density sensor

- Highest accuracy of 0.0001 g/cm³ for all industries
- Allrounder: Premium wetted parts, even for aggressive liquids
- Modular, compact instrument for easy integration
- Simple commissioning and operation
- No consumables, no maintenance

ALAB 5000

- Fully automated, 24/7 operation – no downtime and maximum productivity
- Real-time, at-line measurement results of important QC parameters
- No manual sample preparation
- Designed to perform in rough production environments

	DMA 35	DMA 502	DMA 1002	DMA 1002 Petro DMA 1102 Petro	DMA 4002	DMA 5002	DMA 6002	DMA 6002 Sound Velocity	DMA 4200 M	DMA HPM
Measuring range										
Density	0 g/cm³ to 3 g/cm³					0 g/cm³ to 3 g/cm³				
Sound velocity	×	×	×	×	×	×	×	1,000 m/s to 2,000 m/s	×	×
Pressure	Ambient	Ambient to 10 bar (0 psi to 145 psi)		Ambient to 1 bar (0 psi to 14.5 psi)		Up to 50 °C (122 °F): ambient to 10 bar (ambient to 145 psi) Above 50 °C (122 °F): ambient to 5 bar (ambient to 72.5 psi)		Ambient to 8 bar (ambient to 116 psi)	Ambient to 500 bar (7,250 psi)	Ambient to 1,400 bar (20,300 psi)
Viscosity	×	×	×	0.3 mm²/s to 1,000 mm²/s (DMA 1102 Petro)	×	×	×	×	×	×
Temperature	0 °C to 40 °C (32 °F to 104 °F)	15 °C to 40 °C (59 °F to 104 °F)	15 °C to 60 °C (59 °F to 140 °F)	15 °C to 100 °C (59 °F to 212 °F)	0 °C to 100 °C (32 °F to 212 °F)				-10 °C to +200 °C (14 °F to 392 °F)	
Accuracy										
Density	0.001 g/cm³		0.0001 g/cm³		0.00005 g/cm³	0.00001 g/cm³ (0 g/cm³ to 1.05 g/cm³, 15 °C to 20 °C), 0.00005 g/cm³ (full range)	0.000005 g/cm³		0.0002 g/cm³	Up to 0.0001 g/cm³
Temperature	0.2 °C (0.4 °F)	0.3 °C (0.5 °F)	0.03 °C (0.05 °F)[1]	0.03 °C (0.05 °F)		0.01 °C (0.02 °F) (15 °C to 20 °C), 0.015 °C (0.03 °F) (full range)	0.01 °C (0.02 °F)		0.03 °C (0.05 °F)	Depends on thermostatting device
Repeatability, s.d										
Density	0.0005 g/cm³	0.0002 g/cm³	0.00005 g/cm³		0.00001 g/cm³	0.000003 g/cm³	0.000001 g/cm³		0.00005 g/cm³	Up to 0.0001 g/cm³
Temperature	0.1 °C (0.2 °F)		0.02 °C (0.04 °F)	0.005 °C (0.01 °F)	0.02 °C (0.04 °F)	0.005 °C (0.01 °F)	0.001 °C (0.002 °F)		0.01 °C (0.02 °F)	Depends on thermostatting device
Reproducibility, s.d										
Density	0.0007 g/cm³	0.0004 g/cm³	0.00007 g/cm³	0.0001 g/cm³	0.00005 g/cm³	0.000005 g/cm³			0.0001 g/cm³	×
Digital resolution										
Density	0.0001 g/cm³		0.00001 g/cm³	0.00001 g/cm³	0.00001 g/cm³	0.000005 g/cm³	0.000001 g/cm³		0.00001 g/cm³	
General										
Minimum sample volume	2 mL	1 mL		3.5 mL	1 mL			3.5 mL	2 mL	
U-Tube	Borosilicate glass			Metal: Inconel®	Borosilicate glass				Metal: Hastelloy C-276	
U-View™	×	✓	✓	×	✓	✓	✓	✓	×	×
FillingCheck™	×	✓	✓	×	✓	✓	✓	✓	✓	×
ThermoBalance™	×	×	×	×	✓	✓	✓	✓	×	×
Full range viscosity correction 0-30.000 mPa·s	Up to 1,000 mPa·s	✓	✓	✓	✓	✓	✓	✓	✓ (at ambient pressure)	×
Dimensions L x W x H	245 mm x 103 mm x 126 mm (9.5 in x 4.1 in x 5.0 in)	375 mm x 280 mm x 180 mm (14.8 in x 11.0 in x 7.0 in)		365 mm x 265 mm x 180 mm (14.4 in x 10.5 in x 7.1 in)	526 mm x 347 mm x 230 mm (20.7 in x 13.7 in x 9 in)				510 mm x 330 mm x 230 mm (20.1 in x 13.0 in x 9.1 in)	210 mm x 78 mm x 86 mm (8.3 in x 3.1 in x 3.4 in)
Data memory: Internal storage results	1,200 datasets	5,000 measurement results		1,000 measurement results	10,000 measurement results				1,000 measurement results	30,000 measurement results
Weight	660 g (23.3 oz) to 810 g (28.6 oz)	13.5 kg (29.8 lbs)		6.6 kg (14.55 lbs)	22.04 kg (48.6 lbs)	22.04 kg (48.6 lbs)		22.6 kg (49.8 lbs)	27.7 kg (61.1 lbs)	8.3 kg (18.3 lbs)
AP Connect[2]	✓	✓	✓	✓	✓	✓	✓	✓	×	×
Communication interfaces	Bluetooth®, RFID	1 x Ethernet, 3 x USB, 1 x RS232		4 x USB (3 x A, 1 x B)	5 x USB, Ethernet, CAN, RS232	5 x USB, Ethernet, CAN, RS232			4 x USB (2.0 full speed) 1 x Ethernet (100 Mbit) CAN, RS232, VGA	Refer to documentation of mPDS 5 Evaluation Unit
Standards										
ASTM standards	D7777	×	D4052, D5002	ASTM D7042, D445 bias corrected, ASTM D4052	D4052, D5002	D4052, D5002	D4052, D5002	D4052, D5002 Only applies to density	D4052, D5002, D8188	×
ISO standards	ISO 15212-1	×	ISO 12185	ISO 12185, ISO 23581, EN 16896	ISO 12185	ISO 12185	ISO 12185	ISO 12185 Only applies to density	ISO 12185	×
Pharmacopoeia EUP, US, JP, CH	×	CH 0601	Ph. Eur. 2.2.5, USP 841, JP 17 2.56, CH 0601	×	Ph. Eur. 2.2.5, USP 841, JP 17 2.56, CH 0601	Ph. Eur. 2.2.5, USP 841, JP 17 2.56, CH 0601	Ph. Eur. 2.2.5, USP 841, JP 17 2.56, CH 0601	×	×	×

1) At ±2 °C ambient conditions, compared to ambient conditions during adjustment
2) Microsoft Windows Home Editions are not supported

XDLIP073EN-D

www.anton-paar.com