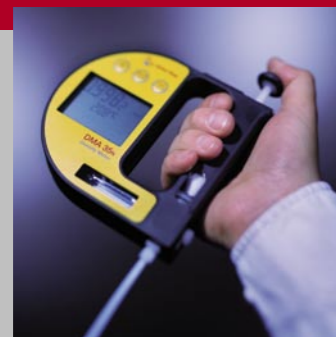


DMA 35N



DMA 38



DMA 4100



DMA 4500



DMA 5000



DSA 5000



Alcolyzer Wine



Alcolyzer Plus Beer



Alcolyzer Plus Spirits



CarboQC & PFD



Features

- Battery-powered, portable density meter
- True one-hand operation
- Extremely lightweight
- Robust pipette-style pump
- Integrated temperature compensation
- Permanently stored concentration tables
- Memory for 1024 measuring results
- Optional RS 232 interface with infrared data port
- Options:
 - intrinsically safe version, ATEX marking II 2 G EEx ib IIC T5
 - petroleum-resistant version

- Display of two density/concentration values
- Tables and formulas programmable
- Built-in air pump for drying the measuring cell
- Small and simple bench-top density meter
- Measuring cell for pressures up to 10 bar (145 psi)

The density meters DMA 4100, DMA 4500 and DMA 5000 feature:

- Automatic viscosity correction covers all sample viscosities
- Can display viscosity-compensated and uncompensated values simultaneously
- In-cell temperature measurement by high-precision platinum sensor
- Patented reference oscillator (AT 399051) for drift-free measurements
- One adjustment for the whole temperature range
- 10 methods built-in to store and recall different measurement settings

- PC, keyboard and/or bar code reader can be connected
- Password protection
- Typical measuring time of 30 seconds
- Typical sample throughput of 10 to 30 per hour
- Memory for up to 100 measurements, statistical functions
- Alphanumeric sample identification
- Audit trail function

- Adjustment history stored in instrument (ISO requirement)
- Built-in alarm limit
- Temperature scan (DMA 5000)
- Customer-specific adjustment routines
- Spill-proof housing and front panel
- Built-in air pump for drying the measuring cell
- Backup card for storage and transfer of instrument configuration

- Measurement of density and sound velocity in one compact instrument
- One adjustment for the whole temperature range
- Temperature scan
- Concentration determination of 3-component samples
- Determination of adiabatic compressibility
- Tables for sulfuric acid (0 - 100 %) and oleum (0 - 65 %) concentration measurement are standard
- Concentration calculation formulas can be entered
- Soft Drink Analyzer 2: Special version to determine actual °Brix, degree of sugar inversion and fresh °Brix of partially and fully inverted sucrose-based drinks and syrups

- Selective and accurate alcohol content measurement of wine, sparkling wine, cider, rice wine and alcopops
- Patented method for alcohol analysis using NIR spectroscopy (US 6,690,015; AT 406711)
- Easy adjustment with distilled water and occasionally with one ethanol/water standard
- No sample-specific calibrations required as needed with conventional NIR systems
- If combined with an Anton Paar density meter, automatic determination of the total extract

- Measures the alcohol content of beer, beer/soft drink mixtures and malt beverages accurately and easily
- Patented NIR method for selective determination of alcohol measurement
- Optional pH and color measurement
- No tedious calibration procedures
- Simple adjustment routine
- Only 10 minutes daily start-up time
- If combined with an Anton Paar density meter, automatic determination of real, apparent and original extract, calories and further beer-specific parameters

- Patented NIR method for measuring alcohol in spirits, such as whisky, cognac, brandy, vodka, gin, tequila and rum
- Optional pH and color measurement
- Easy adjustment
- One adjustment is valid for all kinds of samples
- Only 10 minutes daily start-up time
- Quick measurements
- Measuring systems for quality control in process and lab

- Reliable measurement of CO₂ in beverages using the patented multiple volume expansion method (AT 409673; GB 2373584; US 6,874,351)
- No influence of dissolved air
- Independent of sample flow and sample temperature
- Highly accurate absolute pressure sensor
- No adjustment with CO₂ standards necessary
- Suitable for pressures of up to 10 bar (145 psi)

- Simple and easy operation
- Pre-programmed methods for cola beverages, beer, sparkling wine and mineral water
- Password protection
- Data memory for 100 measurements
- Splash-proof, lightweight plastic housing
- PFD Filling Device for filling samples directly out of the package

Repeatability s. d.	5 x 10 ⁻⁴ g/cm ³	2 x 10 ⁻⁴ g/cm ³	5 x 10 ⁻⁵ g/cm ³	1 x 10 ⁻⁵ g/cm ³	1 x 10 ⁻⁶ g/cm ³	1 x 10 ⁻⁶ g/cm ³ ; 0.1 m/s	0.01 %v/v alcohol	0.01 %v/v alcohol, 0.02 pH, 0.1 EBC	0.01 %v/v alcohol, 0.02 pH, 0.1 EBC	0.1 g/l CO ₂	
Accuracy	1 x 10 ⁻³ g/cm ³	1 x 10 ⁻³ g/cm ³	1 x 10 ⁻⁴ g/cm ³	5 x 10 ⁻⁵ g/cm ³	5 x 10 ⁻⁶ g/cm ³	5 x 10 ⁻⁶ g/cm ³ ; 0.5 m/s	0.1 %v/v alcohol	0.05 %v/v alcohol	0.1 %v/v alcohol	0.05 g/l CO ₂ (Reproducibility s.d.)	
Measuring range	0 to 1.999 g/cm ³	0 to 3 g/cm ³	0 to 3 g/cm ³	0 to 3 g/cm ³	0 to 3 g/cm ³	0 to 3 g/cm ³ ; 1000 to 2000 m/s	0 - 20 %v/v alcohol	0-12 %v/v alc., 0-14 pH, 0-120 EBC	35-65 %v/v alc., 0-14 pH, 0-120 EBC	0 to 20 g/l CO ₂ , < 15 °C (59 °F)	For cans, glass and PET bottles
Viscosity correction	Not required	Not required	Yes	Yes	Yes	Yes	-	-	-	-	-
Temperature range	0 to 40 °C (32 to 104 °F), filling at higher temperatures possible	15 to 40 °C (59 to 104 °F)	0 to 90 °C (32 to 194 °F)	0 to 90 °C (32 to 194 °F)	0 to 90 °C (32 to 194 °F)	0 to 70 °C (32 to 158 °F)	20 °C (68 °F)	20 °C (68 °F)	20 °C (68 °F)	-3 to +30 °C (27 to 86 °F)	
Temperature control		Built-in solid state thermostat (Peltier)	Built-in solid state thermostat (Peltier)	Built-in solid state thermostat (Peltier)	Built-in solid state thermostat (Peltier)	Built-in solid state thermostat (Peltier)	Built-in solid state thermostat (Peltier)	Built-in solid state thermostat (Peltier)	Built-in solid state thermostat (Peltier)		
Minimum sample volume	2 mL	1 mL	1 mL	1 mL	1 mL	3 mL	3 mL	30 mL degassed sample	30 mL	from 100 mL	
Concentration determination	Integrated tables and custom functions (H ₂ SO ₄ , °Brix, % alcohol, API gravity, ...)	One table or custom function programmable	More than 70 stored tables and custom functions (% alcohol, °Brix, API gravity, ...)	More than 70 stored tables and custom functions (% alcohol, °Brix, API gravity, ...)	More than 70 stored tables and custom functions (% alcohol, °Brix, API gravity, H ₂ SO ₄ , ...)	Depends on version	%v/v alcohol, if combined with a DMA automatic determination of the total extract	%v/v alcohol, if combined with a DMA all beer-specific parameters, such as original and real extract, etc.	%v/v alcohol, if combined with a DMA automatic determination of the extract content	g/l or Vol CO ₂ , ppm air, bar or psia package pressure	
Interfaces	Combined PC and printer interface	Separate PC and printer interfaces as standard feature	Separate PC and printer interfaces as standard feature	Separate PC and printer interfaces as standard feature	Separate PC and printer interfaces as standard feature	Separate PC and printer interfaces as standard feature	Separate PC and printer interfaces as standard feature	Separate PC and printer interfaces as standard feature	Separate PC and printer interfaces as standard feature	Separate PC and printer interfaces	
Weight	275 g (10 ounces)	10 kg (22 lbs)	21 kg (46 lbs)	21 kg (46 lbs)	21 kg (46 lbs)	21 kg (46 lbs)	12.4 kg (26 lbs)	12.4 kg (26 lbs)	12.4 kg (26 lbs)	2.6 kg (5.7 lbs)	
Dimensions L x W x H	140 x 130 x 25 mm (5.5 x 5.1 x 1.0 inches)	280 x 210 x 270 mm (11.0 x 8.3 x 10.6 inches)	440 x 315 x 220 mm (17.5 x 12.5 x 9.0 inches)	440 x 315 x 220 mm (17.5 x 12.5 x 9.0 inches)	440 x 315 x 220 mm (17.5 x 12.5 x 9.0 inches)	440 x 315 x 220 mm (17.5 x 12.5 x 9.0 inches)	420 x 280 x 210 mm (16.5 x 11.0 x 8.3 inches)	420 x 300 x 210 mm (16.5 x 11.8 x 8.3 inches)	420 x 300 x 210 mm (16.5 x 11.8 x 8.3 inches)	190 x 120 x 305 mm (7.5 x 4.7 x 12 inches)	
Options	Custom-made concentration formula	Sample changer, aerosol adapter, printer	Sample changer, printer, aerosol adapter, sample handling units	Sample changer, aerosol adapter, printer, sample handling units	Sample changer, aerosol adapter, printer, sample handling units	Sample changer, printer	Sample handling unit, sample changer, printer	Sample handling unit, sample changer, printer	Sample handling unit, sample changer, printer	PFD filling device, printer	

**Autosamplers
SP-1m**



- Automatic sample changer for beverages and aqueous solutions with low viscosity
- Programmable sample filling
- Different filling modes
- Rugged design for reliable use

**Autosamplers
Xsample 350**



- Built-in filling system for samples with viscosities up to 5000 mPa.s
- Ideal for filling high viscous and highly volatile samples
- Automatic cleaning with up to 2 cleaning liquids and subsequent drying of the measuring cell
- Optional multiple filling from the same sample vial
- Sample recovery possible

Xsample 450



**Sample Handling Units
SH-1 | SH-3**



- SH-1:**
- Automatic filling of aqueous solutions of low viscosity using a peristaltic pump
- SH-3:**
- Automatic filling, cleaning and drying using a piston pump. For low to medium viscosity samples

**DMA 4500 +
Xsample 450**



- Automatic density, specific gravity and API gravity determination for the petroleum industry
- Density and concentration of acids, bases, organic and inorganic solutions
- Quality control measurements for various industrial applications

**Alcolyzer/Alcolyzer Plus
+ DMA 5000 + SP-1m**



- Various measuring systems for the brewing industry, wine industry or spirits industry for the automatic determination of alcohol, extract and further sample parameters
- For highly accurate and fast quality control

PBA-B



- Modular measuring system for rapid and accurate beer analysis
- Determines original extract, alcohol, extract and CO₂ content in beer and beer mixtures
- Direct measurement out of the package without sample preparation

24/30/60	-	48/24
50/12 mL	12/50 mL	12/50 mL
10 mL	3 mL	3 mL
Peristaltic pump	Piston pump	Piston pump
20 kg (44 lbs)	26 kg (57.3 lbs) (incl. DMA)	28 kg (61.7 lbs) (incl. DMA)
580 x 385 x 380 mm (22.8 x 15.2 x 15.0 inches)	440 x 380 x 320 mm (17.3 x 15 x 12.6 inches) (incl. DMA)	440 x 660 x 320 mm (17.3 x 26 x 12.6 inches) (incl. DMA)

**External Density Cells
DMA HP | DMA HPM**



- External density measuring cells for measurements at pressures up to 700/1400 bar (10,000/20,300 psi) and temperatures up to 200 °C (392 °F)
- Hastelloy C-276 cell
- For high viscous and highly volatile samples

**DMA 4500 + RXA 170 +
Xsample 450**



- Simultaneous automatic measurements of density and refractive index
- For quality control applications in the flavor, fragrance, cosmetic, pharmaceutical, food and beverage industries

**Soft Drink Analyzer 2
+ SP-1m**



- Automatically determines fresh, inverted and actual °Brix, and degree of inversion of partially or fully inverted soft drinks
- A unique quality control tool for the soft drink industry

PBA-S



- Modular measuring system for rapid and accurate soft drink analysis
- Determines °Brix and CO₂ content in soft drinks
- Direct measurement out of the package without sample preparation

**Density &
Concentration
Measurement**

... Unique Density & Concentration Meters

