

**DMA 48 : precision density meter with built-in solid state thermostat /
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DMA 48

Precision
Density Meter with built-in solid state thermostat



accuracy: $\pm 0.0001 \text{ g/cm}^3$
precision: $\pm 0.00003 \text{ g/cm}^3$

AP PAAR

MICROPROCESSOR CONTROLLED
DENSITY AND SPECIFIC GRAVITY METER
with built-in solid state thermostat

DMA 48

MEASURING PRINCIPLE

PAAR Mechanical oscillator technique

20 YEARS OF EXPERIENCE in designing density meters led to a very user friendly instrument: it's smartness minimizes the possibility of errors.

OPERATION of the instrument is facilitated by menu supported dialog programming. It takes care for sample temperature and correct calibration.

THE NEW DESIGN is cooperative:
It calls for recalibration by itself if you missed.

APPLICATION

- determination of true density and density related values
- concentration measurement (e.g. in food, beverage, photo, pharmaceutical, cosmetic, polymer, nuclear and petrochemical industries)
- quality control (e.g. in pharmaceutical and general chemical industries)

FEATURES AND BENEFITS

- built-in solid state thermostat — temperature is controlled by microcomputer
- temperature is available for calculation and calibration
- eliminates troubles with thermostat baths
- saves space on lab table
- minimum sample size (0.7 ml)
- the keyboard can be disconnected: also without keyboard, the instrument is fully operative, but the various setting cannot be altered: misuse is eliminated
- external cells allow density measurement under special and extreme conditions: high temperature
high pressure
minimum sample amount
... and others
- a filling, rinsing and cleaning device (optional) allows comfortable operation
- a special version with metal oscillating tube for high pressure and high temperature
- SP3 sample changer (optional) allows automatic operation

SPECIFICATIONS

Measuring range: 0 to 3 g/cm³
Accuracy: $\pm 1 \times 10^{-4}$ g/cm³
Precision: $\pm 3 \times 10^{-5}$ g/cm³
Sample size: approx. 0.7 ml
Sample temperature range: -10 to +70 °C
Internal precision of thermostat: ± 0.01 °C
Temperature equilibrium: 0.5 to 3.5 min
Typical test or cycling time: 1 to 8 min
Pressure: up to 10 bars (150 psi)

Digital display reads: true density, concentration, specific gravity, API and other (also non-linear) density related values (customized programming)

Digital data output: RS 232 C; the DMA 48 can be interfaced with an external PC (IBM compatible)

Dimensions: 510 x 275 x 210 mm

Weight: approx. 25 kg

Patents: Austrian patent No. 280662, Germany patent No. 1648953, British patent No. 1189063, French patent No. 1579521, US-patent No. 3523446, further patents in pending

AP PAAR
Scientific instruments - Precision machinery - Electronics

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Instruments for — density/concentration — preparation for electron microscopy
— rheology — fibre testing
— X-ray structure analysis — medical equipment
— preparation for trace analysis — astronomy ... and others

Specifications subject to change without notice.

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