

DSA 48 : density & sound analyzer with built-in state thermostat / Anton Paar K.G.

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Density & Sound Analyzer

DSA 48

with built-in solid state thermostat

NEW: Two Measuring Principles in One Instrument Open
New Possibilities in Analysis and Experimentation.



precision: $\pm 0.00003 \text{ g/cm}^3$, $\pm 0.1 \text{ m/s}$, $\pm 0.01 \text{ }^\circ\text{C}$
accuracy: $\pm 0.0001 \text{ g/cm}^3$, $\pm 1 \text{ m/s}$, $\pm 0.1 \text{ }^\circ\text{C}$

AD PAAR
GRAZ — AUSTRIA

MICROPROCESSOR CONTROLLED
DENSITY & SOUND ANALYZER
with built-in solid state thermostat

DSA 48

MEASURING PRINCIPLE
PAAR Mechanical oscillator technique
PAAR Time interval averaging

20 YEARS OF EXPERIENCE in designing density meters led to a very user friendly instrument: its intelligence eliminates virtually all possible sources of error.

OPERATION of instrument is facilitated through a menu driven program. Sample temperature and correct calibration are handled automatically.

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

APPLICATION

- concentration measurement in three-component mixtures (e.g. in food, beverage, photo, pharmaceutical, cosmetic, polymer, nuclear and petrochemical industries)
- determination of true density and density related values
- 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 (2 ml)
- two measuring principles in one cell open new fields in concentration measurement and three-component quality control
- the keyboard can be disconnected — the instrument is fully operative, but the various settings cannot be altered — misuse is eliminated
- a filling, rinsing and cleaning device (optional) allows comfortable operation
- SP3 sample changer (optional) allows automatic operation
- Results are shown on a bright, easy to read LED display

SPECIFICATIONS

Measuring range:

Density: 0 to 3 g/cm³
Sound velocity: 1000 to 2000 m/s

Accuracy:

Density: $\pm 1 \times 10^{-4}$ g/cm³
Sound velocity: ± 1 m/s

Sample size:

approx. 2 ml

Sample temperature range:

-10 to +70 °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 and other (also non-linear) sound velocity and density related values (customized programming)

Digital data output: Two RS 232 C; the DSA 48 can be interfaced with an external PC (IBM compatible) and/or printer

Dimensions: 510 x 275 x 210 mm

Weight: approx. 25 kg

Patents:

Austrian patent No. 280662, Germany patent No. 1648953, British patent No. 1189083, French patent No. 1579521, US-patent No. 3523446, further patents in pending.

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Specifications subject to change without notice.



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— X-ray structure analysis
— preparation for trace analysis
— preparation for electron microscopy
— fibre testing
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