



Biomedical Systems

VAPRO[®] Vapor Pressure Osmometer



THE PERFECT LABORATORY COMPANION TO DETERMINE OSMOTIC STRENGTH

An efficient, bench top in vitro diagnostic instrument used to determine osmolality by means of dew point temperature depression.

 **ELITechGroup**
EMPOWERING IVD

ADVANTAGES OF VAPRO

- Streamlined, menu-driven user interface
- Four user-selectable languages (English, French, German, and Spanish)
- Easy, automatic calibration
- Superb accuracy, with <1% error rate in the clinical range
- Robust design makes it easy to handle and maintain
- Self-cleaning thermocouple reduces maintenance and improves performance
- Economical, with low up-front cost

DESIGNED FOR

Vapro is designed for routine measurements in the medical field and is also suitable for use in research and other industries to determine the total osmolality of aqueous and non-aqueous solutions.

The instrument tests a range of sample volumes (2, 10, 20, and 60 μ L), offering rapid measurement cycles even for small samples.

MEASUREMENT TECHNIQUE

The vapor pressure method determines osmolality at room temperature with the sample in natural equilibrium. This precludes cryoscopic artifacts due to high viscosity, suspended particles, or other conditions that can interfere with freezing point determinations, giving Vapro a broad range of applications.

SPECIFICATIONS

Model	5600
Display	240 x 128 px backlit LCD
Weight	6.8 kg (15 lb)
Dimensions (H x W x D)	20 cm x 28 cm x 36 cm (8" x 11" x 14")
Sample volume	10 μ L nominal (2 μ L, 20 μ L, and 60 μ L sample holders also available)
Test time	~ 90 Seconds
Resolution	1 mmol/kg
Units	mOsmol/kg H ₂ O
Range	Typically 20 to 3200 mmol/kg (up to 3500 mmol/kg with extended range osmometer) at 25 °C ambient
Linearity	While operating between 20 and 25 °C: <ul style="list-style-type: none"> ± 1% of reading over calibrated range (100 mmol/kg to 1,000 mmol/kg) ± 5% < 100 mmol/kg and > 1,000 mmol/kg up to 3,200 mmol/kg ± 10% > 3,200 mmol/kg for XR units
Repeatability	2 mmol/kg SD
Storage temperature	0–60 °C
Operating temperature	<ul style="list-style-type: none"> Indoor use only between 15 and 37 °C with 85% maximum humidity For use at elevations up to 2,000 meters Instrument should be at stable temperature before operating
Power supply	40 Watts maximum
Line voltage	100–240 Volts AC at 50–60 Hz
Electrical fuses	5 x 20 mm time-delay type T – 1 ampere at 250 Volts (2 required)

APPLICATIONS

- General Medicine
- Diagnosis of diabetes, cystic fibrosis, hyper/hyponatremia, and polyuria
- IV, insulin, and ADH therapies
- Renal function prognosis
- Post-operative monitoring
- Emergency medicine such as burn therapy, head injury/trauma
- Physiological infusion solutions
- Monitoring infant formulas
- Reagent and standard solutions
- Pharmaceuticals
- Toxicology
- Veterinary medicine
- Electron microscopy
- Marine biology
- Tissue culture
- Agriculture
- Cancer research
- Food/beverage mfg
- Genetic research
- Botany and plant physiology

VQC PROGRAM

- Online, real-time quality control evaluation and comparison program
- Assists with evaluating the performance of your osmometer by comparing your QC results to those of other laboratories worldwide using the same instrument and lot of controls
- Monthly reports assist with routine record-keeping
- Participation in a peer group comparison program fulfills good lab practice guidelines
- Provided at no additional charge

ORDERING INFORMATION

Model 5600	Vapro Vapor Pressure Osmometer (10 μ L)
Model 5600XR	Vapro Vapor Pressure Osmometer Extended Range (10 μ L)
AC-037	Micropipettor (10 μ L)
SS-036	Micropipettor disposable tips (1000 ea)
OA-010	100 mmol/kg Opti-Mole osmolality ampule standard
OA-029	290 mmol/kg Opti-Mole osmolality ampule standard
OA-100	1000 mmol/kg Opti-Mole osmolality ampule standard
SS-273	Osmocoll HNL osmolality control references six 1-mL vials (2 EA)
AC-062	Vapro sample holder (10 μ L)
AC-061	Ampule organizer
SS-033	Sample discs (vial of 5000)
121006	Power cord, US 115V
121175	Power cord, US 230V
AC-177	Seiko printer (9600 baud) power supply and cable



WORLDWIDE OFFICES

Please contact your sales representative for terms, conditions and product availability in your country.

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