50 µl Sample Size

FREEZEPOINT® FREEZING POINT OSMOMETER

A non-invasive in vitro diagnostic product
used to determine the osmolality of aqueous solutions.

Innovation with Integrity

APPLICATIONS

- General medicine
- Sports laboratories
- Forensic medicine
- Electron microscopy
- Physiology
- Clinical laboratories
- Botany
- Pediatrics
- Gynecology
- Military hospitals
- In vitro fertilization
- Urology
- Nephrology
- Hemodialysis
- Veterinary medicine
- Intensive care laboratories
- Pharmacy
- Dispensaries
- Contact lens manufacturing
- Food/beverage manufacturing

Advantages of the FreezePoint®

- Robust, precise, reliable, and fast
- Easy control via the integrated touch screen display
- Step-by-step guidance through all measuring functions and setting options
- Two- or three-point calibration
- Automatic and safe calibration with the Bruker Calibration Standards
- Data transfer to PC or laptop via RS-232 or USB
- Last result remains available after switching to automatic stand-by mode
- Quality Management assistance for the laboratory supervisor
- On-board printer to output results (Model 6000SP)
- Over 40 years of experience in precision measurement technology and osmometry
- Comprehensive advice and reliable service from our experts

THE PERFECT COMPANION FOR DETERMINING THE OSMOLALITY OF AQUEOUS SOLUTIONS

Measurement Technology

Osmometry is an analytical measuring method for determining the osmotic value / pressure (often referred to as simply the osmolality) of a sample.

The osmolality is defined as the concentration of all dissolved – and thus osmotically effective – particles in a solution based on 1 kilogram of solvent. **The unit of osmolality is Osm/kg or Osmol/kg.**

The freezing point of a sample changes depending on the concentration of dissolved substances.
Pure water has a freezing point of 0 °C. The solution of one or several substances in water leads to lowering of the freezing point. A solution with an osmotic value of 1 Osmol/kg has a freezing point of -1.858 °C.

Through the linear correlation between the freezing point of a sample and its osmolality, **freezing point osmometry provides high-precision analytics.**

Application

Freezing point osmometers are used in numerous areas of application, such as medical, pharmaceutical, biotechnology, food and beverage, and chemical industries.

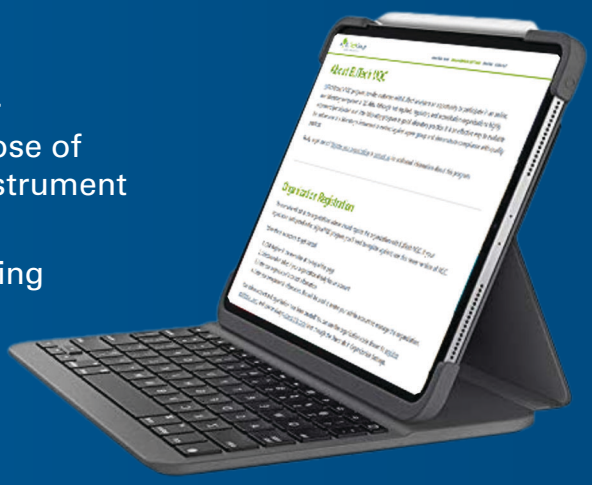
Osmotic processes and osmoregulation play an important role in the human body, as a disturbance of the osmotic equilibrium can lead to numerous health impairments.

In many cases, osmometers are used in the medical and pharmaceutical industries to determine the osmolality of blood or urine samples or pharmaceutical formulations by freezing point osmometry. The **FreezePoint®** series has been specially designed for routine measurements in the medical and pharmaceutical fields, but due to their robustness, precision, and ease of use, they are also the perfect choice for many others areas.

The FreezePoint determines the total osmolality of aqueous solutions, requires extremely small sample amounts, and allows serial measurements in the shortest possible time.

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



SPECIFICATIONS

Model	6000S / 6000SP
Display	5.7'' LCD - Touch Screen
Weight	6.5 kg (14.3 lbs.)
Dimensions (W x H x D)	205 mm x 360 mm x 220 mm (8.1" x 14.2" x 8.7")
Cooling Unit	Two separate peltier cooling systems with heat dissipation by air
Lower Cooling	Electronic temperature regulation, deviation < ±0.1 °C
Sample Volume	50 µL / single sample
Test Time	~ 60 Seconds
Resolution	1 mOsmol/kg H_2O
Units	mOsmol/kg H_2O
Range	0 to approx. 3000 mOsmol/kg H2O
Precision (within run repeatability)	≤ 2 mOsmol/kg (SD) [0 to 400] mOsmol/kg H_2O ≤ 0,5 % (CV) [400 to 1500] mOsmol/kg H_2O ≤ 1 % (CV) [1500 to 3000] mOsmol/kg H_2O
Linearity	≤ ±2 [0 to ≤ 400] mOsmol/kg H_2O ≤ ±0.5% [> 400 to ≤ 1000] mOsmol/kg H_2O ≤ ±1.0% [> 1000 to ≤ 2000] mOsmol/kg H_2O
Ambient Temperature	10 °C to 30 °C
Power Supply	100 - 240V, 50/60 Hz, 80 VA

ORDER INFORMATION

Model 6000S	FreezePoint® Freezing Point Osmometer (50µL)
Model 6000SP	FreezePoint® Freezing Point Osmometer (50µL with printer)
SS-036	Pipettor Tips (1000 ea.)
SS-275	Measurement Vessels, 1000 ea.
SS-279	Measurement Vessels, 100 ea.
SS-283	Calibration Standard, 100 mOsmol/kg
SS-284	Reference Solution, 290 mOsmol/kg
SS-276	Calibration Standard, 300 mOsmol/kg
SS-285	Calibration Standard, 500 mOsmol/kg
SS-277	Calibration Standard, 850 mOsmol/kg
SS-286	Calibration Standard, 2000 mOsmol/kg
SS-281	Printer Paper, 8 rolls ea.
AC-201	Pipette, 50 µL
AC-192	Barcode Reader Kit
RP-548	USB Cable
RP-549	RS232 Cable
RP-550	Power Cord, US 120V

BRUKER

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Online information
Osmometers.com

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