

S-LINE

M-LINE

| | MPW-54 | MPW-55 | MPW-56 | MPW-150R | M-BASIC | M-UNIVERSAL | M-DIAGNOSTIC | M-SCIENCE | MPW-260 |
|---------------------------------------|-----------------|------------|-----------|---|--------------|---|---|---|---|
| | 120 ml | 48 ml | 120 ml | 90 ml | 120 ml / PRP | 500 ml | 500 ml | 100 ml | 500 ml |
| RCP max. | 1 137,3 122 x g | 15 279 x g | 3 341 x g | 21 382 x g | 2 469 x g | 24 270 x g | 4 830 x g | 24 270 x g | 24 270 x g |
| RPM max. | 3 500, 5 800 | 14 500 | 6 000 | 15 000 | 4 000 | 18 000 | 6 000 | 18 000 | 18 000 |
| | - | - | - | -20°C + +40°C | - | - | - | - | - |
| Number of rotors (angle swing-out) | 3/0 | 3/1 | 4/0 | 7/1 | 1 | 19/4 | 8/5 | 8/1 | 19/3 |
| Rotor auto-recognition | - | - | - | • | - | • | • | • | • |
| Language | EN | EN | EN | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ | EN | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ |
| Cover tightening | - | - | - | - | - | - | - | - | - |
| User programs | - | 9 | - | 100 | 5 | 100 | 100 | 100 | 100 |

M-LINE

L-LINE

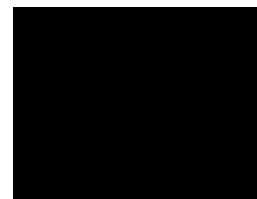
XL-LINE

| | MPW-260R | MPW-260RH | MPW-351e | MPW-352 | MPW-352R | MPW-352RH | MPW-380 | MPW-380R |
|---------------------------------------|---|---|-----------|---|---|---|---|---|
| | 500 ml | 500 ml | 800 ml | 1 000 ml | 1 000 ml | 1 000 ml | 3 000 ml | 3 000 ml |
| RCP max. | 24 270 x g | 24 270 x g | 3 509 x g | 29 703 x g | 30 065 x g | 30 065 x g | 31 876 x g | 31 876 x g |
| RPM max. | 18 000 | 18 000 | 4 500 | 18 000 | 18 000 | 18 000 | 18 000 | 18 000 |
| | -20°C + +40°C | -20°C + +55°C | - | - | -20°C + +40°C | -20°C + +55°C | - | -20°C + +40°C |
| Number of rotors (angle swing-out) | 19/3 | 19/3 | 4/3 | 27/7 | 27/7 | 27/7 | 13/4 | 13/4 |
| Rotor auto-recognition | • | • | - | • | • | • | • | • |
| Language | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ | EN | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ | PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ |
| Cover tightening | - | - | - | • | • | • | • | • |
| User programs | 100 | 100 | - | 100 | 100 | 100 | 100 | 100 |



46 Boremlowska Street
04-347 Warsaw Poland

MPW MED. INSTRUMENTS
www.mpw.pl



Get in touch with the next generation...



OSMOMAT 3000

freezing point osmometer

- TOUCH IT** user guidance ✓
- QM assistance ✓
- barcode and USB connectivity ✓

gonotec
www.gonotec.com

Fields of Application of the OSMOMAT® 3000

The GONOTEC® Single-Sample Freezing Point Osmometer is especially designed for routine measurements in the medical field and is also very suitable for measurements in research and industry.

The OSMOMAT 3000 determines the total osmolality of aqueous solutions. The instrument requires very small sample volumes and can thus be applied for extreme measuring tasks. Its rapidity allows serial measurements in a very short time.

Simple Handling and Documentation

- The OSMOMAT 3000 Osmometer can be controlled easily and comfortably via a touch screen display.
- Step by step user guidance through all measurement functions.
- QM assistance for the laboratory supervisor.
- 2 or 3 point calibration.
- The results are sent to the optional built-in printer in document-ready format.
- For data transfer to a PC it can be connected via USB or RS232.
- Collection of sample data via an optional barcode reader.
- The robust design of the measurement equipment makes the OSMOMAT 3000 easy to handle and maintain.
- Choice of language: German/English.
- Automatic calibration by using Gonotec calibration standards.

The Measuring Technique

The total osmolality of aqueous solutions is determined by comparative measurements of the freezing points of pure water and of solutions. Whereas water has a freezing point of 0 °C, a solution with saline concentration of 1 Osmol/kg has a freezing point of -1.858 °C.

OSMOMAT 3000 can be used in:

- General Medicine
- Routine and Research
- Forensic Medicine
- Electron Microscopy
- Physiology
- Clinical Laboratories
- Intensive care Laboratories
- Paediatrics
- Gynaecology
- In-vitro Fertilization
- Urology
- Nephrology
- Haemodialysis/Hemofiltration
- Veterinary Medicine
- Botany
- Pharmacy
- Dispensaries
- etc.

Specification

Standard Instrument

| | |
|----------------------------------|--|
| Display | 5.7" LCD - touch screen |
| Initiation of the cryst. process | By means of the tip of a stainless steel needle covered with ice crystals which is controlled automatically |
| Cooling | By means of 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 | About one minute |
| Resolution | 1 mOsmol/kg H ₂ O |
| Units | mOsmol/kg H ₂ O |
| Range | 0 up to 3000 mOsmol/kg H ₂ O |
| Reproducibility | ≤ ±2 digit [0.. 400] mOsmol/kg H ₂ O ≤ ±0.5% [400.. 1500] mOsmol/kg H ₂ O ≤ ±1.0% [1500.. 3000] mOsmol/kg H ₂ O |
| Linearity | Less than ±1% in calibrated range |
| Output Ports | DTE RS-232, USB |
| Ambient Temp. | 10 °C to 35 °C |
| Power supply | 100 - 240V, 50/60 Hz, 80 VA |
| Dimensions | 220 x 205 x 360 mm (D x W x H) |
| Weight | approx. 6.4 kg |

Option D

| | |
|-------------|--|
| Printer | Graphical dot matrix-printer date, time and sample information on each measurement |
| Digits | ≥ 16 characters per row |
| Paper | Normal paper, 43 mm wide |
| Print modes | Single printing, batch printing |
| Ink-Ribbon | Endless ink-ribbon cassette, exchangeable |
| ERROR | Printed in plain text |

Option BC

| | |
|---------------|--------------------------|
| Digital Input | Barcode reader included. |
|---------------|--------------------------|

Option M

| | |
|-----------------|--|
| Sample Volume | 15 µl |
| Reproducibility | ≤ ±2.0% [0..3000] mOsmol/kg H ₂ O |

Technical changes reserved!

gonotec

Gonotec Gesellschaft für
Mess- und Regeltechnik mbH
GSG-Hof Reuchlinstr. 10-11
D-30553 Berlin
Germany



054 10 05133 7 015