

Photometer Water Quality Analyzer

BEP-M1000Y



Description

BEP-M1000Y is a machine with narrow-band interference technology and high-precision filtering system. It comes with a printer and automatically checks when it is turned on. It also has a large-capacity storage function.

Features

Narrowband interference technology + high-precision filter system

The instrument uses narrow-band interference technology and high-precision filtering technology to filter a large amount of stray light to improve the purity of light entering the system, avoid the effects of instrument noise and drift, and improve instrument stability.

Results read only

The instrument has a built-in standard curve corresponding to the project, eliminating the need for customers to calibrate themselves. The concentration can be read directly without conversion.

Water quality electrochemical zone detection

The instrument adopts electrochemical water quality zone detection function, which can simultaneously measure dissolved oxygen, pH, water quality and other parameters, which is fast, intuitive and clear at a glance.

Power outage protection

The instrument comes with a power-off protection function, which effectively solves the problem of data loss when the instrument is powered off and ensures the timeliness of data at all times.

Standard equipment: LAB-YY supporting detection reagents, pipettes, test tube cooling racks.

Bring your own printer

The instrument is equipped with a one-click printing system, which ensures correct measurement and printing, making it convenient for customers to keep measurement stubs for superior inspection.

Power on self-test

The power-on self-test function of the instrument detects the operation of each system of the instrument in a multi-faceted manner to ensure the stability of the instrument operation.

Large-capacity storage functions

The AMR9 ultra-large-capacity chip equipped with the instrument makes the instrument more responsive and can store more than 5,000 measurement data and 200 curve data at the same time. And equipped with USB data transmission system. Facilitate customers to transfer data.

Dual power supply

It adopts a dual power supply system with internal and external power supplies, which can be portable or operated indoors. The two power supply modes can be switched between each other to ensure the safety of the instrument's power supply and the stable operation of the instrument.

Instrument parameters

1. pH measurement range: (-1.99 ~ 19.99) pH	
Resolution	0.1/0.01
Accuracy	Electric meter: ±0.01 pH, matching: ±0.02 pH
Input Current	≤1×10 ⁻¹² A
Input Resistance	≥3×10 ¹² Ω
Stability	±0.01 pH/3h
Temperature Compensation Range	Manual/automatic (0~100.0) °C
※ mV Measurement Range (mV/ORP/EH): -2000mV ~ 0 ~ 2000mV	
Resolution	1mV
Accuracy	±0.1% FS mV
2. ※ Conductivity measurement range: (0.00~20.00) μS/cm (20.0~200.0) μS/cm (200~2000) μS/cm (2.00~20.00) mS/cm (20.0~200.0) mS/cm (200~2000) mS/cm (K=10)	
Resistivity	(0 ~ 100) MΩ·cm
TDS	(0 ~ 100) g/L
Salinity	(0 ~ 100) ppt
Resolution	0.01/0.1/1 μS/cm 0.01/0.1/1 mS/cm
Accuracy	Electric meter: ±0.5% FS, matching: ±1.0% FS
Temperature Compensation Range	(0 ~ 100) °C (manual/automatic)
※ Electrode Constant	0.1/1/10 cm ⁻¹
※ Reference Temperature	25 °C, 20 °C and 18 °C
3. Dissolved oxygen measurement range: (0 ~ 20.00) mg/L (ppm) (0 ~ 200.0)%	
Resolution	0.1/0.01 mg/L(ppm) 1/0.1 %
Accuracy	Electric meter: ±0.10 mg/L, matching: ±0.40 mg/L
※ Response Time	≤10s
Stability	(±0.07mg/L)/1h
Temperature Compensation Range	(0 ~ 100) °C (automatic/manual)
Salinity Compensation Range	(0 ~ 45) ppt (automatic)
Air Pressure Compensation Range	(0~200) kPa (automatic)
※ Electrode Type: Fluorescence dissolved oxygen sensor	
Temperature Measurement Range	0 °C ~ 100 °C
Resolution	0.1 °C
Accuracy	5~60 °C range: ±0.4 °C, Other ranges: ±0.8 °C

Technical Parameters

Model	BEP-M1000Y
Water Quality Module Parameters	
Water Quality Project Indication Error	≤8%
Water Quality Project Repeatability	≤±3%
Measurement Time	Immediate measurement
Number of Curves	200 curves configurable
Data Storage	Capable of storing more than 5000 entries
Wavelength Range	380-800nm
Optical Stability	≤0.001A/10min
Colorimetric Method	Colorimetric tube colorimetry
Digestion Module Parameters	
Temperature Control Range	Room temperature - 210 °C
Temperature Indication Error	≤±2 °C
Timing Range	1-99 hours
Digestion Capacity	1-10ml
Heating Speed: Reaches set temperature of 165 °C within 10 minutes	Reaches set temperature of 165 °C within 10 minutes
Host parameters	
Instrument Weight	17kg
Host Dimensions	52.5*20*39cm
Rated Voltage / Charging Voltage	AC220V±10%/50Hz
Rated Power	200W
Working Time	Continuous operation under full load for 6h
Power Supply Mode	Rechargeable lithium battery 24V 19.2Ah External: AC220V±10%/50Hz
Display Screen	7.0-inch 1024*600 high-definition color full touch screen / 5.6-inch Omron keypad integrated screen
Printer	Built-in thermal printer
Data Communication	USB interface
Light Source Lifespan	20,000 hours
Ambient Temperature	5~40 °C
Ambient Humidity	Relative humidity ≤85% (non-condensing)

Optional testing items

Test Item	Measurement Range	Test Method
COD(Chemical Oxygen Demand)	5-10000mg/L (segmented)	Rapid digestion spectrophotometry
Total Nitrogen	0.5-30mg/L	Alkaline potassium persulfate digestion UV spectrophotometry
Permanganate Index	0.2-5mg/L	Potassium permanganate oxidation spectrophotometry
Ammonia Nitrogen	0.5-50mg/L (segmented)	Salicylic acid photometry
Total Phosphorus	0.1-100mg/L (segmented)	Vanadomolybdate yellow colorimetric Method
Total Nitrogen	0.5-30mg/L	Chromotropic acid spectrophotometry
Residual Chlorine	0-15mg/L (segmented)	DPD spectrophotometry
Total Chlorine	0.05-3mg/L	
Chlorine Dioxide	0.02-3mg/L	
Air Formaldehyde	0.05-1.50mg/m ³	Phenol reagent spectrophotometry
Formaldehyde in Water	0.05-10mg/L	Chromotropic acid spectrophotometry
Textile Formaldehyde	0.1-50mg/L (segmented)	Acetylacetone spectrophotometry
Hexavalent Chromium	0.01-10mg/L (segmented)	Diphenylcarbazide photometry
Total Chromium	0.01-10mg/L (segmented)	Potassium periodate oxidation diphenylcarbazide photometry
Nitrite	0.01-0.2mg/L	N-(1-naphthyl)-ethylenediamine photometry
Nitrite Nitrogen	0.01-0.2mg/L	
Nitrate Nitrogen (as N)	0.5-10.00mg/L	Phenol disulfonic acid photometry
Nitrate (as NO ₃ ⁻)	0.5-20.00mg/L	
Sulfate	5-100mg/L	Barium chromate spectrophotometry
Phosphate	0.01-50mg/L (segmented)	Molybdate spectrophotometry
	0.5-50mg/L	Vanadomolybdate yellow colorimetric method
Iron	0.05-3.00mg/L	o-Phenanthroline spectrophotometry
Copper	0.05-3.00 mg/L	Sodium diethyldithiocarbamate photometric method
Lead	0.05-4.00mg/L	Xylenol orange spectrophotometry
Cyanide	0.0-1.0mg/L	Isonicotinic acid-barbituric acid photometry
Arsenic	0.05-3.00mg/L	Arsenic-antimony-molybdenum blue photometry
Aluminum	0.04-0.3 mg/L	Chromium azure spectrophotometry
Zinc	0.01-2.0 mg/L	Zinc reagent spectrophotometry
Manganese	0.2-5.00mg/L	Potassium periodate spectrophotometry
Nickel	0.05-3.00mg/L	Dimethylglyoxime spectrophotometry
Silver	0.01-1mg/L	3,5-Br ₂ -PADAP photometry
Sulfide	0.01-1.0mg/L	Methylene blue spectrophotometry
Volatile Phenol	0.05-3.0mg/L	4-Aminoantipyrine photometry
Fluoride	0.01-2.0mg/L	Fluorine reagent spectrophotometry
Chloride	0.2-20mg/L	Mercuric thiocyanate photometry
Volatile Fatty Acids (VFA)	50-3000mg/L	
Anionic Surfactant (LAS)	50-800mg/L	Basic fuchsin photometry
Silica (Macro-range)	0.5-20mg/L	Silicon-molybdenum yellow method
Air Ozone	0.1-2.5 mg/L	Sodium indigodisulfonate photometry
Ozone in Water	0.3-2.5mg/L	

Photometer Water Quality Analyzer

BEP-WQ2000



Description

The product has a 7-inch color touch screen with a simple and intuitive interface, which is convenient for users to view and operate.



Features

It can measure 40 conventional water quality parameters at the same time, and the concentration can be read directly, so the measurement results are more accurate.

The factory built-in calibration curve does not require customers to create it. At the same time, the instrument supports customer-created curves, and the expansion curve can reach 200.

The instrument is equipped with a large-capacity storage system that can store more than 5,000 pieces of experimental data, making it convenient for users to view and back up.

The unique high-precision filter system combined with narrow-band interference technology effectively avoids stray light, making the test data more stable and the measurement accuracy higher.

Supports multiple colorimetric methods for cuvettes and colorimetric tubes, and can flexibly select colorimetric methods according to user water sample needs.

Built-in thermal printer, which can print current data and stored data, making it convenient for users to keep stubs.

Using imported cold light source, the light source life is up to 10W hours.

Equipped with the new ARM9 chip, the instrument is more responsive and has a larger capacity of up to 500M memory.

Supports USB data export, users can centrally process data through EXCEL.

Combined with Lab-yy pre-made reagents, the reagent preparation step is eliminated, saving customer operation time, reducing customer experimental technical requirements, and greatly improving work efficiency.

Specification

Model	BEP-WQ2000
Test Items	Any combination of all items
Wavelength Range	190-1100nm
Indication Error	≤8%
Repeatability	±3%
Optical Stability	≤0.001A/10min
Light Source	Imported tungsten lamp, deuterium lamp
Light Source Life	10,000 hours
Measurement Time	5 minutes
Number of Curves	200 items can be set
Data Storage	Can store more than 5000 items
Colorimetric Method	Cuvette/colorimetric tube
Display	7-inch color touch screen
Printer	Built-in thermal printer
Data Communication	USB interface
Ambient Temperature	5~40 °C
Environment Humidity	Relative humidity ≤85 (no condensation)
Rated Voltage	AC 220V±10%/50Hz
Rated Power	70W
Package Dimension (W*D*H)	540*470*320mm
G.W.	11.8kg

Optional testing items

Measurement Items	Measurement Range	Test Methods
COD (Chemical Oxygen Demand)	5-100mg/L 100-10000mg/L (segmented)	Rapid digestion spectrophotometry
Ammonia Nitrogen	0.05-30mg/L (segmented) 0.1-50mg/L	Nessler's reagent spectrophotometry Salicylic acid photometry
Total Phosphorus	0.01-15mg/L (segmented) 0.1-100mg/L	Molybdate spectrophotometry Vanadium molybdenum yellow photometry
Suspended Solids	5-100mg/L 100-700mg/L	Direct colorimetry
Total Nitrogen	0-10mg/L	Alkaline potassium persulfate digestion UV spectrophotometry
Residual Chlorine	0-15mg/L (segmented)	DPD spectrophotometry
Total Chlorine	0-1.5mg/L	
Chlorine Dioxide	0.05-3mg/L	
Air Formaldehyde	0.01-2.00mg/m ³	Acetylacetone/Spectrophotometry

Optional testing items

Measurement Items	Measurement Range	Test Methods
Formaldehyde in Water	0.01-10mg/L	Acetylacetone spectrophotometry
Textile Formaldehyde	0.05-3mg/kg	Acetylacetone spectrophotometry
Turbidity	Cuvette: 1-10 / 10-100 / 100-1000 NTU Colorimetric tube: 5-100 / 100-800 NTU	Formazine spectrophotometry
Chroma	5-500PCU (segmented)	Platinum cobalt colorimetry
Hexavalent Chromium	0.0- 10.0mg/L (segmented)	Diphenylcarbazide spectrophotometry
Total Chromium	0.0- 10.0mg/L (segmented)	Potassium periodate oxidation of diphenylcarbazide spectrophotometric method
Nitrite	0-0.2mg/L	Naphthylethylenediamine hydrochloride spectrophotometry
Nitrite Nitrogen	0-0.2mg/L	Naphthylethylenediamine hydrochloride spectrophotometry
Nitrate Nitrogen	0.5-10.00mg/L	Phenol disulfonic acid photometry
Nitrate	0.5-10.00mg/L	Phenol disulfonic acid photometry
Permanganate Index	0-5.0mg/L	Potassium permanganate oxidation spectrophotometry
Sulfate	5-40mg/L	Barium chromate spectrophotometry
Phosphate	0.01-50mg/L (segmented)	Molybdate spectrophotometry
	0.5-50mg/L (segmented)	Vanadium molybdenum yellow colorimetry
Fe	0.05-3.00mg/L	o-phenanthroline spectrophotometry
Ag	0.01-1 mg/L	3,5-Br ₂ -PADAP Spectrophotometry
Cu	0.05-3.00mg/L	Sodium dihexyldithiocarbamate spectrophotometry
Pb	0.05-4.00mg/L	Xylenol Orange Spectrophotometry
Cyanide	0.0-1.0mg/L	Isonicotinic acid-barbituric acid spectrophotometry
As	0.05-3.00mg/L	Arsenic Antimony Molybdenum Blue Photometry
Al	0.01-1.0mg/L, 0.03-0.4mg/L	Aluminum reagent spectrophotometry \ Chromium azure photometry
Zn	0.4-5.0mg/L	Zinc reagent spectrophotometry
Mn	0.0 - 5.00mg/L	Potassium periodate spectrophotometry
Cd	0.05-3.00mg/L	Cadmium Reagent Spectrophotometry
Ni	0.05 - 3.00mg/L	Diacetyl oxime spectrophotometry
Sulfide	0.0-1.0mg/L	Methylene blue spectrophotometer
Volatile Phenol	0.01 - 3.0mg/L	4-Aminoantipyrine Spectrophotometer
Fluoride	0.0- 2.0mg/L	Fluorine Reagent Spectrophotometer
chloride	0.2-20mg/L	Mercuric thiocyanate photometric method
Total Alkalinity	5-1000 mg/L (segmented)	
Phenolphthalein Alkalinity	5-200 mg/L	
Silica	0.05-20mg/L	Silicon molybdenum yellow spectrophotometry
Ethylene oxide	0.5-10 mg/L	Acetylacetone spectrophotometry
Volatile fatty acids	50-3000mg/L	
Anionic surfactant	50-800mg/L	Basic Fuchsin spectrophotometric method