



Kyoto Electronics

Automatic Potentiometric Titrators



AT-500N-1



AT-500N-2



KYOTO ELECTRONICS

Automatic Potentiometric Titrators

Options

■ Standard system

IDP-100 Printer

#430-0036 Propeller stirrer

SOFT-CAP_E

■ Burette Units
 APB-510-01B (1mL)
 APB-510-05B (5mL)
 APB-510-10B (10mL)
 APB-510-20B (20mL) Standard
 APB-510-50B (50mL)

MTA-118 Microtitration cell unit

Sealed cell unit SCU-118

MW-510 Manual washing unit

AE-118DR Electronic balance (with a connecting cable)

CHA-500 Multiple Sample Changer

connecting cable #030-3388

■ Preamplifiers
 Preamplifier for 2-way system titration, STD-510
 Preamplifier for photometric titration, PTA-510
 Preamplifier for polarization titration, POT-510

Applications

Typical measurement examples are as shown below. For other types of analysis, contact your local dealer or visit KEM website:

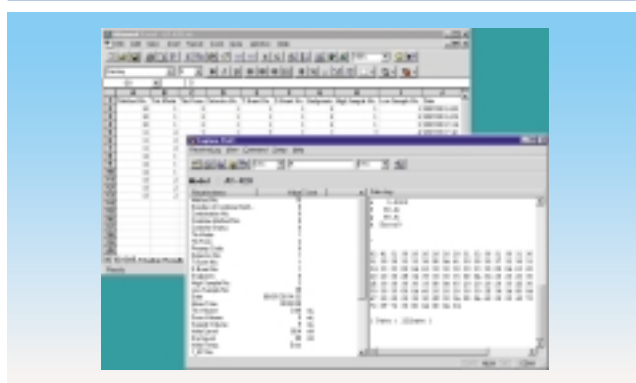
| | |
|---|--|
| Petroleum products, oils and fats: | Determination of total acid, base or bromine number / Determination of mercaptan / Acid number of palm oil and fish oil / Amine value of fats and oils / Determination of acrylic acid / Determination of ester |
| Pharmaceutical products: | Determination of sodium chloride, magnesium and calcium in Dialysis solution / Determination of iodine, ascorbic acid and chloride ion in medicine / Determination of sodium acetate, benzalconium chloride, sodium carbonate, methyl bencuchdium bromide / Purity of chitosan / Determination of vulcanate bromide, benzoic acid |
| Cosmetics, Detergents: | Acid number, saponification value and hydrogen peroxide volume of cosmetics and fragrance / Determination of sodium sulfate and surfactants in synthetic detergents and shampoo |
| Foods, Beverages | Acidity of fruit juice / Determination of vitamin C / Chlorine and acidity in sauces and vinegar |
| Chemical products, Paints | Determination of phosphate ester, sodium hydroxide, ammonium carbonate / Fractional determination of Mixed acid of phosphoric acid and sulfuric acid, sodium sulfide and aqueous sodium sulfide, nitric acid and acetic acid / Determination of phosphoric acid, succinic acid, sodium carbonate, oxiran, scopolamine hydrobromide, NCO (isocyanate), concentration of sulfuric acid, halogen ions, sodium acetate |
| Plating and etching fluid | Determination of chromic acid, nickel chloride in plating bath, boric acid, chloride ion / Determination of silver and free cyanogens in silver plating bath, lead and tin in solder bath / Concentration of alkali defatted solution / Concentration of activated acid / Concentration of hydrochloric acid and ferrous ion in plating bath / Concentration of zinc in zinc plating bath |
| Environment, Industrial water: | Concentration of chloride ion, calcium hardness and total hardness of river water / M alkali and P alkali on industrial water |
| Power generation/Atomic energy: | Concentration of boric acid / Concentration of trace chloride ion / Acid number of transformer oil and turbine oil |
| Electronic parts and plastics | Concentration of chlorine ion in resins / Determination of TMAH / Concentration of hydrogen peroxide / Concentration of chlorine in solder flux / Determination of anhydrous maleic acid in resins, carboxyl group in PET resin |
| Ceramic and metal industry | Trace chlorine ion in cement / Determination of calcium oxide and magnesium oxide / Fractional determination of nitric acid and hydrofluoric acid in pickling solution / Concentration of ferrous ion / Concentration of hydrochloric acid and ferrous ion in pickling solution / Concentration of chrome in washing solution |

Specifications

| Model | AT-500N-1 (Single burette type) | AT-500N-2 (Twin burette type) |
|--|---|-------------------------------|
| Measuring range | -2000 to +2000mV, 0.00 to 14.00pH, 0 to 100°C | |
| Titration mode | 1) Blank titration, 2) Auto speed control titration, 3) Auto intermittent titration 4) Constant speed or intermittent constant-speed titration | |
| Number of method | 4 standard methods, 16 user defined methods (total 20 methods) | |
| Types of titration | Potentiometry : Acid-base, Redox, Precipitation titration Photometry and Polarization titration | |
| Titration form | Full titration, EP Stop titration, Level Stop titration | |
| Display | 16 digits x 2 lines LCD with back light | |
| Displayed contents | Titration potential and volume, measurement result, and etc. | |
| Number of burette | 1 built in burette | 2 built in burettes |
| Burette capacity and precision / reproducibility | 50mL burette : - 0.05 mL / - 0.02 mL, 20mL burette : - 0.02mL / - 0.01mL 10mL burette : - 0.015mL / - 0.005mL, 5mL burette : - 0.01mL / - 0.003mL 1mL burette : - 0.005mL / - 0.001mL, (standard 20mL) | |
| Preamplifier | 1) STD-510 : pH(mV) and mV 2way input amplifier (standard) 2) PTA-510 : pH(mV), mV and photometry 3way input (option) 3) POT-510 : pH(mV), mV and polarization 3way input (option) | |
| Interface | Standard for Balance, Printer and RS-232C | |
| Sample changer | Optional multiple sample changer CHA-500 | |
| Printer | Optional printer IDP-100 and others | |
| Power source | AC100 ~ 240V, 50/60Hz | |
| Power consumption | 25W | 30W |
| Dimension | Main unit : 288(W) x 468(D) x 481(H)mm Stirrer unit : 118(W) x 225(D) x 336(H)mm | |
| Weight | 10kg | 12kg |
| CE marking | EMC (noise) and LVD (safety) | |
| Standard accessories | Operation manual -----1 Stirrer spinner (25mm) -----#500-3141 -----1 Piston rod -----#551-5002 -----1 Electrode cable -----#429-0012 -----1 Combined glass electrode -----#100-C172 -----1 Temperature comp. electrode -----#100-T111 -----1 | |

Data Capture Software

SOFT-CAP_E



■ SOFT-CAP_E the Data Capture Software for AT-500N Automatic titrator (Option)

- Data Capture Software can control Automatic titrators.
- Measurement results of Automatic titrators can be downloaded directly to workbook in Microsoft[®] Excel or filed in CSV format.
- Windows[®] with Excel must be installed on the connected personal computer.

KEM

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