Automatic Potentiometric Titrator

AT-710 SERIES

Multiple Sample Changer

CHA-700

CHA-600

KYOTO ELECTRONICS
MANUFACTURING CO.,LTD.

SUMMARY

Flagship model

4-channel multi connection/ High extensibility

Automatic Potentiometric Titrator

AT-710 M

Midrange model

Smooth operation with touch panel

Automatic Potentiometric Titrator

AT-710 S

Entry model

Simplify titration

Automatic Potentiometric Titrator

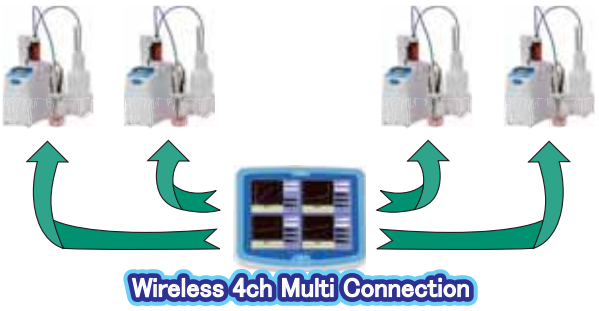
AT-710 B

FEATURE

Wireless connection between operation unit, touch panel, and titration unit/ Simultaneous measurement with up to 4 titration units

AT-710M

By the use of wireless adapters (Bluetooth®, Commercialized product), the operation unit and the titration unit can be used together without being connected to each other with a cable. You can carry out titration of a sample, which emits poisonous gas, safely by keeping the titration unit inside a draft chamber while keeping the operation unit outside of it. You may place the operation unit on the opposite side of aisle or hold it with your hand by connecting a battery (Commercialized product) to it for operation. Attaching a monitor arm to the main control unit allows for flexibility of its mounting position. (The arm mount of the display is compliant with VESA standard 75mm x 75mm.)



Reagent information stored in burette unit

AT-710M AT-710S

Information of titrant is stored in the IC chip on the burette unit. The info is firm even when the burette unit is transferred from one titration unit to another and thus there is no need to re-enter the information into the titration unit. This function prevents you from using wrong reagent.

New-type burette unit

AT-710M AT-710S AT-710B

The burette unit has the switching valve on top of the cylinder. The structure reduces dead space in the tube between the cylinder and the switching valve. In addition to the reduction of dead space in the cylinder, the structure reduces amount of residual titrant to ease replacement of titrant.

Option : Reagent Bottle

Electrode information stored in electrode

AT-710M AT-710S AT-710B

By the use of the optional smart electrode cable, electrode information is stored in the cable, not in the titration unit. Exchange and use of multiple electrodes does not require recalibration of the electrodes.

OPTION

Multiple Sample Changer CHA-700

Main Specification

Specification	Contents	
Number of samples	6	11
Sample container	Standard: 200mL disposable cup, 250mL beaker or 200mL beaker Option: 100mL disposable cup, 50mL beaker, 100mL beaker or 100mL tall beaker	100mL disposable cup or 50mL beaker
Power supply	AC100-240V±10% 50/60Hz	
Power consumption	Approx. 20W	
Dimensions	365 (W) x 443 (D) x 315 (H)mm	
Weight	Approx. 8kg	

Multiple Sample Changer CHA-600

Main Specification

Specification	CHA-600-12	CHA-600-18
Number of samples	12	18
Sample container	Standard: 200mL disposable cup, 200mL beaker or 300mL tall beaker Option: 50mL beaker, 100mL beaker or 200mL erlenmeyer flask	100mL disposable cup or 50mL beaker
Power supply	AC100-120V/AC200-240V±10% 50/60Hz	
Power consumption	Approx. 50W	
Dimensions	520 (W) x 434 (D) x 509 (H)mm	
Weight	Approx. 18kg	

SPECIFICATION

Specification	Contents		
Type	Automatic Potentiometric Titrator		
Model	AT-710M	AT-710S	AT-710B
Product configuration	MCU-710M + AT-710 + IDP-100 + Propeller stirrer	MCU-710S + AT-710 + IDP-100 + Propeller stirrer	AT-710 + IDP-100 + Propeller stirrer
Detection range	1) Potentiometric : −2000mV to +2000mV 2) pH : −20.000 to 20.00pH 3) Temperature : 0 to 100℃		
Titration mode	Auto Titration, Auto Intermit, Intermit, Stat		
	Petroleum Titration, COD		
Method	Standard method 120, Combined method 10 (Max 5 methods can be linked)		20 (Max 2 methods can be linked)
Kinds of titration	Potentiometric (acid/base, redox, precipitation), Photometric, Polarization, Conductivity		
Titration form	Full titration (Auto EP detection), EP Stop, Level Stop		
	Intersect, EP Stop/Level Stop		
Special application	Measurement of electrode potential (pH, potential), Acid dissociation constant (pKa)		
	Simultaneous recording of 2-way input potential (e.g. Titer vs pH+%T, Titer vs pH+μS), Learn		
Key operation	Touch panel		Sheet key
Displays	1) 8.4-inch color LCD 800 × 600 dots		1) White LED-backlit LCD
	2) English / Japanese / Mandarin Chinese / Korean / Russian / Spanish / German / French		2) English / Japanese / Mandarin Chinese / Korean / Russian / Spanish
	3) Simultaneous 4-channel display (Can also display Karl Fischer Moisture Titrator simultaneously)	3) 1-channel display	3) 1-channel display
Calculation	Concentration of content, statistics data processing (mean, SD and RSD) and automatic averaging of blank and factor value		
Data storage	500 samples		50 samples
GLP conformance	Registration of operator / User group administration Titrant: Reminder of date of factor measurement / Alarm to indicate remaining reagent / Reminder of piston replacement date / Reminder of reagent replacement date / History of factor measurement Check performance: Reminder of scheduled check date / Record of check results Management of electrode: Reminder of calibration date / Record of calibration history / Electrode check / History of electrode check Verification of burette capacity: Verification / Record of verification results Management of conduction time: Display of operating time		Registration of operator / Record of check results / Record of electrode calibration / Verification of burette capacity / Management of conduction time
Burette size	20mL glass burette with brown cover (Standard) Optional burette units: 10mL, 5mL, or 1mL		
Burette accuracy	50mL burette(Auto dispenser) ± 0.5mL 20mL burette ± 0.02mL ; reproducibility ± 0.01mL 10mL burette ± 0.015mL ; reproducibility ± 0.005mL 5mL burette ± 0.01mL ; reproducibility ± 0.003mL 1mL burette ± 0.005mL ; reproducibility ± 0.001mL		
Preamplifier	1) STD : pH (mV) and mV, 2 inputs (Standard) 2) PTA : pH (mV), mV and photometric, 3 inputs 3) POT : pH (mV), mV and polar, 3 inputs 4) CMT : pH (mV), mV and conductivity, 3 inputs (factory setting required) 5) TET : pH (mV) 2 ways and mV, 3 inputs (factory setting required)		
External I/O	RS-232C port × 3		RS-232C port × 2
	for Dot matrix printer, Electronic balance, Data Capture Software (SOFT-CAP)		
	SS-BUS × 1 : for Multiple sample changer, APB ELE. × 1 : for Smart electrode TEMP.COMP. × 1 : Input terminal for temperature sensor to correct reagent volume, sensor Pt100, temperature reading accuracy: ±0.5℃ (burette 1 only)		
	USB × 1		USB × 1
	for USB flash drive, Thermal printer, A4 printer, Keyboard, Barcode reader, Foot switch, USB HUB	for USB flash drive, Thermal printer, A4 printer, Keyboard, Barcode reader, Foot switch, USB HUB	for USB flash drive, Thermal printer, Keyboard, Barcode reader, Foot switch, USB HUB, Android device
	LAN × 1 : for Personal computer (PC)		
Extensibility	Measuring instrument : Automatic Potentiometric Titrator (AT-710), Karl Fischer Moisture Titrator (MKV-710/MKC-710); Three of these instruments can be added.		
	Automatic piston burette : Can control max 10 burette drives (Including two built-in burette drives)		
	Multiple sample changer : CHA-600, CHA-700		Multiple sample changer : CHA-700
Ambient condition	1) Temperature : 5 to 35℃ 2) Humidity : 85%RH or below (no condensation)		
Power source	AC100 − 240V ±10% 50/60 Hz		
Power consumption	Main unit : Approx. 30W		Main unit : Approx. 20W
	Printer : Approx. 7W		Printer : Approx. 7W
Dimensions	Touch panel controller : 225(W) × 190(D) × 42(H)mm		
	Titration unit : 141(W) × 296(D) × 367(H)mm (not incl. tubing) Printer : 106(W) × 180(D) × 88(H) mm		
Weight	Touch panel controller : Approx. 1.5kg		
	Titration unit : Approx. 4.0kg Printer : Approx. 0.4kg		
Conformity standard	CE marking EMC: EN61326-1 LVD : EN61010-1 RE Directive Burette unit EBU FCC Part15 SubpartC FCC ID : 2ABSVEBU01		

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