

Automatic Potentiometric Titrator

AT-71 D SERIES

Multiple Sample Changer



KYOTO ELECTRONICS MANUFACTURING CO., LTD.

SUMMARY



Flagship model

4-channel multi connection/ High extensibility

Automatic Potentiometric Titrator



Midrange model



Smooth operation with touch panel

Automatic Potentiometric Titrator



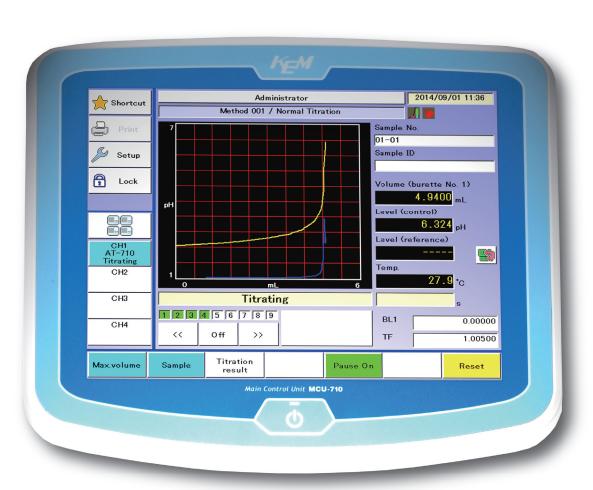
Entry model



Simplify titration

Automatic Potentiometric Titrator





EATURE

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.)



Wireless 4ch Multi Connection

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.

PTION

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

Type	A	Contents			
	Automatic Potentiometric Titrator	7.7400	AT 740D		
		T-710S CU-710S + AT-710 + IDP-100 +	AT-710B		
Product configuration		ropeller stirrer	AT-710 + IDP-100 + Propeller stirrer		
Detection range	1) Potentiometric : -2000mV to +2000mV				
	2) pH : -20.000 to 20.00pH				
Titration mode	3) Temperature : 0 to 100°C				
	Auto Titration, Auto Intermit, Intermit, Stat				
	Petroleum Titration, COD				
Method	Standard method 120, Combined method 10 (20 (Max 2 methods can be linked)		
Kinds of titration	Potentiometric (acid/base, redox, precipitatio		rity		
Titration form	Full titration (Auto EP detection), EP Stop, Lo	evel Stop			
Cassial application	Intersect, EP Stop/Level Stop Measurement of electrode potential (pH, potential), Acid dissociation constant (pKa)				
Special application	Simultaneous recording of 2-way input poten				
	(e.g. Titer vs pH+%T, Titer vs pH+ μ S), Learn				
Key operation	Touch panel		Sheet key		
Displays	1) 8.4-inch color LCD 800 × 600 dots		White LED-backlit LCD		
Displays	2) English / Japanese / Mandarin Chinese /	Korean / Russian / Spanish /	English / Japanese / Mandarin Chinese		
	German / French	Toronia, Tracolar, Sparior,	Korean / Russian / Spanish		
	1	1-channel display	3) 1-channel display		
	(Can also display Karl Fischer				
	Moisture Titrator simultaneously)				
Calculation	Concentration of content, statistics data prod	cessing (mean, SD and RSD) and autom	atic averaging of blank and factor value		
Data storage	500 samples		50 samples		
GLP conformance	Registration of operator / User group adminis	stration	Registration of operator / Record of ched		
	Titrant: Reminder of date of factor measurement / Alarm to indicate remaining		results / Record of electrode calibration		
	reagent / Reminder of piston replacement da	te / Reminder of reagent replacement	Verification of burette capacity /		
	date / History of factor measurement		Management of conduction time		
	Check performance: Reminder of scheduled check date / Record of check results				
	Management of electrode: Reminder of calibra	ation date / Record of calibration			
	history / Electrode check / History of electron	ode check			
	Verification of burette capacity: Verification	Record of verification results			
	Management of conduction time: Display of o				
Burette size	20mL glass burette with brown cover (Standa	ard)			
	Optional burette units: 10mL, 5mL, or 1mL				
Burette accuracy	50mL burette(Auto dispenser) ± 0.5mL				
		oducibility ± 0.01mL			
		oducibility ± 0.005mL			
		oducibility ± 0.003mL oducibility ± 0.001mL			
Preamplifier	1) STD : pH (mV) and mV, 2 inputs (Standard				
Freampliner	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 (fa				
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°C (burett	te 1 only)			
	USB × 1		USB × 1		
		r USB flash drive, Thermal printer,	for USB flash drive, Thermal printer,		
		4 printer, Keyboard, Barcode reader,	Keyboard, Barcode reader, Foot switch,		
	A4 printer, Keyboard, Barcode reader, A4	r printer, recypoura, parocae reader,			
		pot switch, USB HUB	USB HUB, Android device		
	Foot switch, USB HUB Fo				
Extensibility	Foot switch, USB HUB Fo LAN × 1 : for Personal computer (PC) Measuring instrument				
Extensibility	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) Measuring instrument : Automatic Potentiometric Titrator				
Extensibility	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) Measuring instrument : Automatic Potentiometric Titrator (AT-710), Karl Fischer Moisture Titrator				
Extensibility	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) Measuring instrument : Automatic Potentiometric Titrator (AT-710), Karl Fischer Moisture Titrator (MKV-710/MKC-710); Three of these				
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Extensibility	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) 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 m.	ax 10 burette drives			
Extensibility	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) 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 m. (Including two	ax 10 burette drives built-in burette drives)	USB HUB, Android device		
	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) 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 m. (Including two Multiple sample changer : CHA-600, CH/	ax 10 burette drives built-in burette drives)			
Extensibility Ambient condition	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) 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 m. (Including two Multiple sample changer : CHA-600, CH/1) Temperature : 5 to 35°C	ax 10 burette drives built-in burette drives)	USB HUB, Android device		
Ambient condition	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) 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 m (Including two Multiple sample changer : CHA-600, CH/ 1) Temperature : 5 to 35°C 2) Humidity : 85%RH or below (no cond	ax 10 burette drives built-in burette drives)	USB HUB, Android device		
Ambient condition Power source	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) Measuring instrument : Automatic Potentiometric Titrator (MKV-710), Karl Fischer Moisture Titrator (MKV-710/MKC-710); Three of these instruments can be added. Automatic piston burette : Can control m (Including two Multiple sample changer : CHA-600, CH/ 1) Temperature : 5 to 35°C 2) Humidity : 85%RH or below (no cond AC100 - 240V ± 10% 50/60 Hz	ax 10 burette drives built-in burette drives)	Multiple sample changer : CHA-700		
Ambient condition	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) 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 m. (Including two Multiple sample changer : CHA-600, CH/ 1) Temperature : 5 to 35°C 2) Humidity : 85%RH or below (no cond AC100 - 240V ± 10% 50/60 Hz Main unit : Approx. 30W	ax 10 burette drives built-in burette drives)	Multiple sample changer : CHA-700 Main unit : Approx. 20W		
Ambient condition Power source Power consumption	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) 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 m. (Including two Multiple sample changer : CHA-600, CH/ 1) Temperature : 5 to 35°C 2) Humidity : 85°RH or below (no cond AC100 - 240V ± 10°, 50′.60 Hz Main unit : Approx. 30W Printer : Approx. 7W	ax 10 burette drives built-in burette drives) A-700 ensation)	Multiple sample changer : CHA-700		
Ambient condition Power source	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) 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 m (Including two Multiple sample changer : CHA-600, CH/ 1) Temperature : 5 to 35°C 2) Humidity : 85%RH or below (no cond AC100 - 240V ± 10% 50/60 Hz Main unit : Approx. 30W Printer : Approx. 7W Touch panel controller : 225(W) × 190	ax 10 burette drives built-in burette drives) A-700 lensation)	Multiple sample changer : CHA-700 Main unit : Approx. 20W		
Ambient condition Power source Power consumption	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) 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 m. (Including two Multiple sample changer : CHA-600, CH/ 1) Temperature : 5 to 35°C 2) Humidity : 85%RH or below (no cond AC100 - 240V ± 10% 50/60 Hz Main unit : Approx. 30W Printer : Approx. 7W Touch panel controller : 225(W) × 190 Titration unit : 141(W) × 296	ax 10 burette drives built-in burette drives A-700 densation) (D) × 42(H)mm (D) × 367(H)mm (not incl. tubing)	Multiple sample changer : CHA-700 Main unit : Approx. 20W		
Ambient condition Power source Power consumption Dimensions	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) Measuring instrument : Automatic Potentiometric Titrator (MKV-710, Karl Fischer Moisturer Titrator (MKV-710/MKC-710). Three of these instruments can be added. Automatic piston burette : Can control m (Including two Multiple sample changer : CHA-600, CH/ 1) Temperature : 5 to 35°C 2) Humidity : 85%RH or below (no cond AC100 - 240V ± 10% 50/60 Hz Main unit : Approx. 30W Printer : Approx. 7W Touch panel controller : 225(W) × 190 Titration unit : 141(W) × 296 Printer : 106(W) × 180	ax 10 burette drives built-in burette drives) A-700 lensation)	Multiple sample changer : CHA-700 Main unit : Approx. 20W		
Ambient condition Power source Power consumption	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) Measuring instrument : Automatic Potentiometric Titrator (MKV-710), Karl Fischer Moisture Titrator (MKV-710), Karl Fischer Moisture Titrator (MKV-710/MKC-710); Three of these instruments can be added. Automatic piston burette : Can control m (Including two Multiple sample changer : CHA-600, CH/ 1) Temperature : 5 to 35°C 2) Humidity : 85%RH or below (no cond AC100 - 240V ± 10% 50/60 Hz Main unit : Approx. 30W Printer : Approx. 7W Touch panel controller : 225(W) × 190 Titration unit : 141(W) × 296 Printer : 106(W) × 180 Touch panel controller : Approx. 1.5kg	ax 10 burette drives built-in burette drives A-700 densation) (D) × 42(H)mm (D) × 367(H)mm (not incl. tubing)	Multiple sample changer : CHA-700 Main unit : Approx. 20W		
Ambient condition Power source Power consumption Dimensions	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) 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 m. (Including two Multiple sample changer : CHA-600, CH/ 1) Temperature : 5 to 35°C 2) Humidity : 85%RH or below (no cond AC100 - 240V ± 10% 50/60 Hz Main unit : Approx. 30W Printer : Approx. TW Touch panel controller : 225(W) × 190 Titration unit : 1106(W) × 180 Touch panel controller : Approx. 1.5kg Titration unit : Approx. 1.5kg Titration unit : Approx. 1.5kg	ax 10 burette drives built-in burette drives A-700 densation) (D) × 42(H)mm (D) × 367(H)mm (not incl. tubing)	Multiple sample changer : CHA-700 Main unit : Approx. 20W		
Ambient condition Power source Power consumption Dimensions	Foot switch, USB HUB LAN × 1 : for Personal computer (PC) Measuring instrument : Automatic Potentiometric Titrator (MKV-710), Karl Fischer Moisture Titrator (MKV-710), Karl Fischer Moisture Titrator (MKV-710/MKC-710); Three of these instruments can be added. Automatic piston burette : Can control m (Including two Multiple sample changer : CHA-600, CH/ 1) Temperature : 5 to 35°C 2) Humidity : 85%RH or below (no cond AC100 - 240V ± 10% 50/60 Hz Main unit : Approx. 30W Printer : Approx. 7W Touch panel controller : 225(W) × 190 Titration unit : 141(W) × 296 Printer : 106(W) × 180 Touch panel controller : Approx. 1.5kg	ax 10 burette drives built-in burette drives A-700 ensation) (D) × 42(H)mm (D) × 367(H)mm (not incl. tubing) (D) × 88(H) mm	Multiple sample changer : CHA-700 Main unit : Approx. 20W		



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