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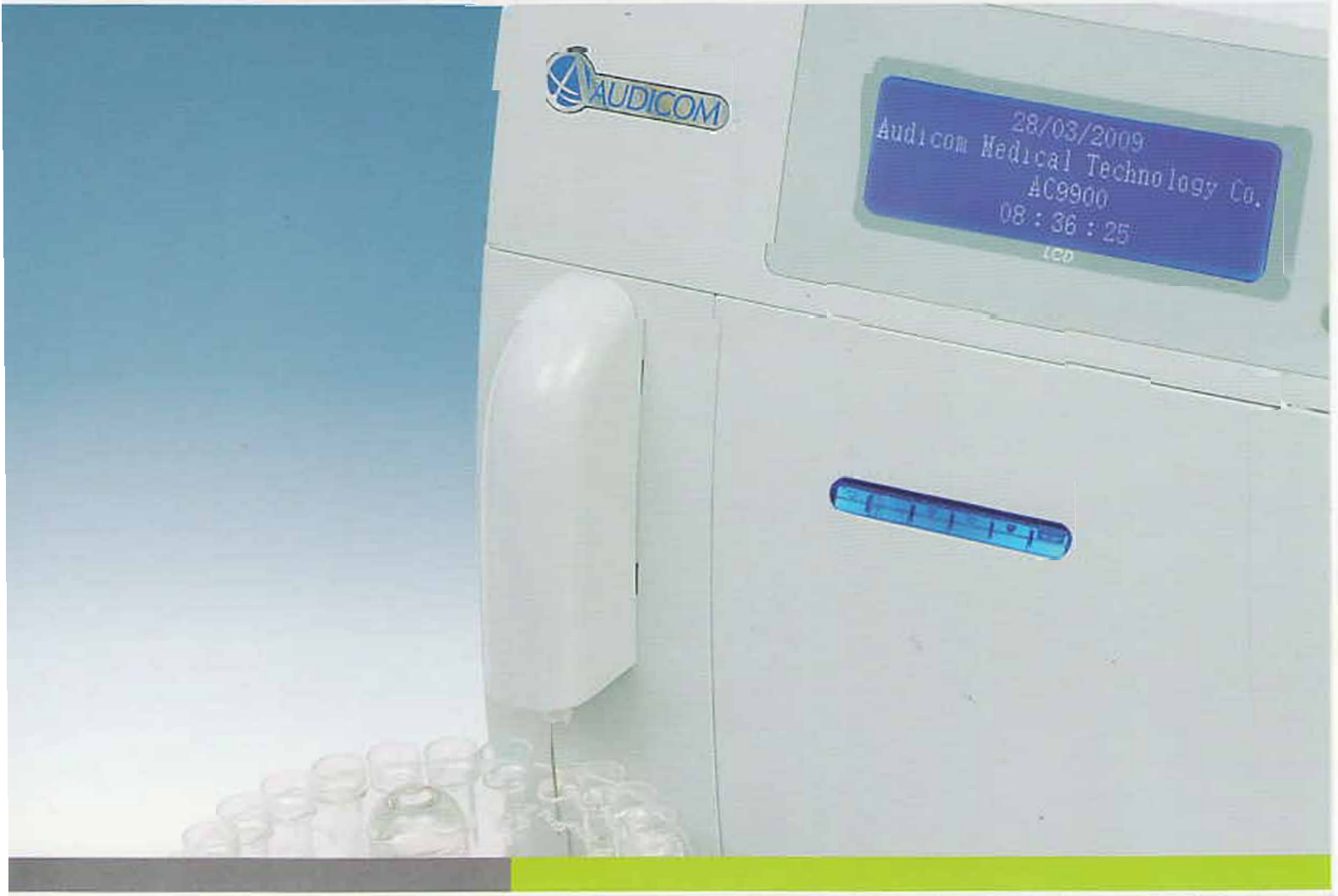

EXPERT OF MEDICAL INSTRUMENT

AC9000 SERIES

Automatic Electrolyte Analyzer

Na K Cl Ca pH TCO_2 Electrolyte analyzer

AUDICOM MEDICAL TECHNOLOGY CO.,LTD

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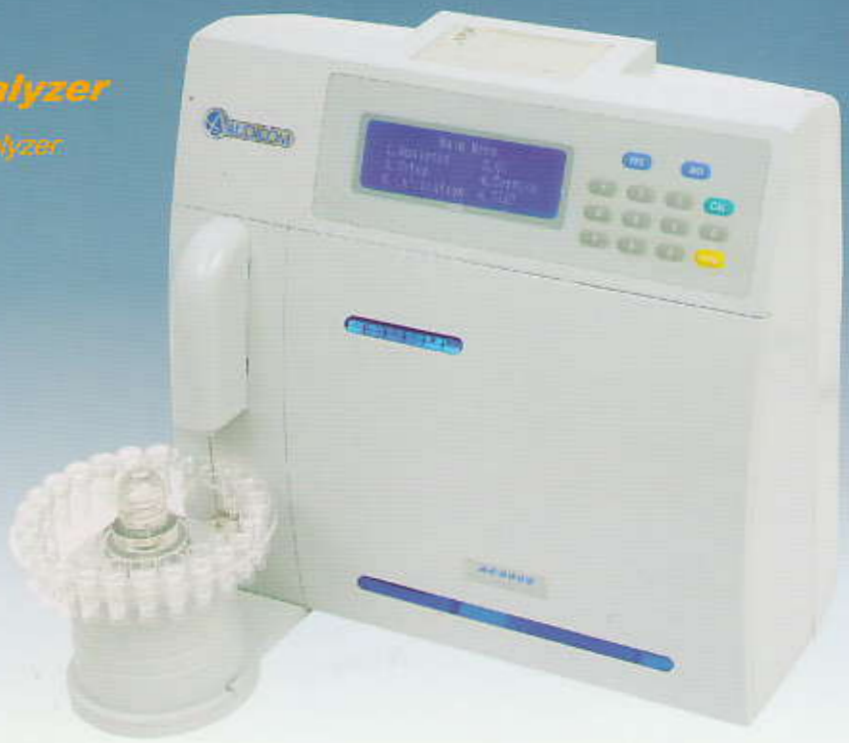
AC9900

Automatic Electrolyte Analyzer

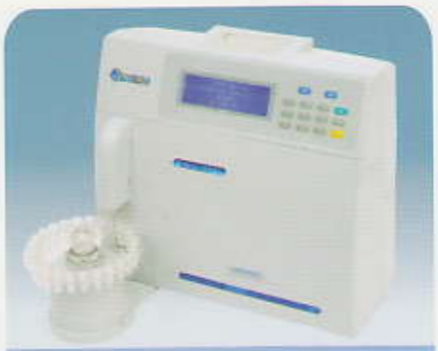
Na K Cl Ca pH TCO_2 Electrolyte analyzer



Product Series

AC9900

Automatic Electrolyte Analyzer
25-bit optional automatic sampling turntable
Measuring item: Na、K、Cl、Ca、pH、TCO_2
Calculating item: nCa、TCa、AG



AC9800

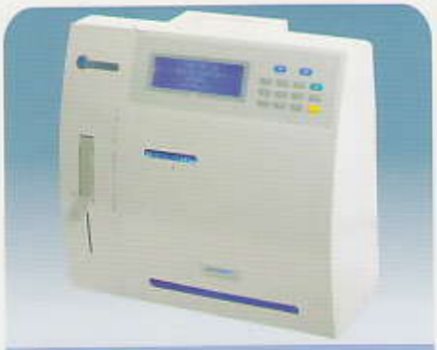
Automatic Electrolyte Analyzer
25-bit optional automatic sampling turntable
Measuring item: Na、K、Cl、Ca、pH
Calculating item: nCa、TCa

AC9600

Automatic Electrolyte Analyzer
25-bit optional automatic sampling turntable
Measuring item: Na、K、Cl、TCO_2
Calculating item: AG

AC9100

Automatic Electrolyte Analyzer
25-bit optional automatic sampling turntable
Measuring item: Na、K、Cl



AC9801

Semi-automatic Electrolyte Analyzer
Automatic calibration, manual sampling
Measuring item: Na、K、Cl、Ca、pH
Calculating item: nCa、TCa

AC9802

Semi-automatic Electrolyte Aualyzer
Automatic calibration, manual sampling
Measuring item: Na、K、Cl、Ca、pH
Calculating item: nCa、TCa

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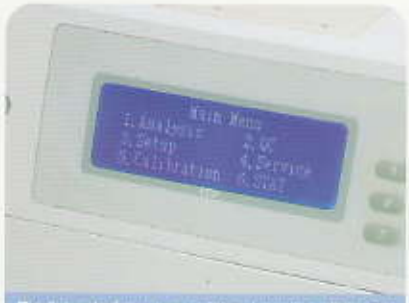
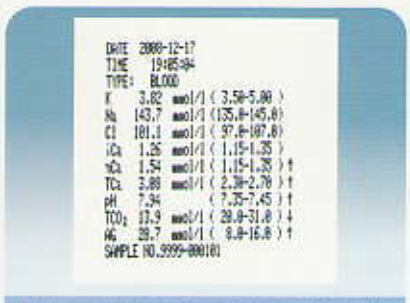
Advanced Technology



English interface, two-point automatic calibration. Store 10000 measuring data.RS232 for data communication.

Advanced MCU modular machine design with stable performance and easy maintenance.



High-speed thermal printer, printing all the sample data, calculating data and reference ranges.

Technical Features

Reliable Long-life Electrode

The non-lead assembled ion selective electrode is made from the imported material. It is guaranteed for 12 months. AUDICOM exclusively applies silver chloride inner electrode, thoroughly preventing the risk of early failure. The special full sealing technology is used for all electrodes. For this purpose, the leakage of electrode (especially for the reference electrode easily leaked) can disappear, the reliability and service life can increase and the maintenance of electrode can be done automatically by instrument. These technologies are the important guarantee for AUDICOM electrolyte not only to operate stably for a long time and but also to improve the durability. The average service life of electrodes sold to the users exceeds two years above and the maximum service life is five year above. TCO_2 electrode is equipped with non-contact silicon pressure sensor which is imported from America. This kind of precision sensor used for industry control and aviation and aerospace is the semi-permanent appliance. In theory, it can be operated in long period. Generally, no performance may be changed after it operates for 5—8 years.

Automatic and Intelligent Operation

AC9000 series electrolyte analyzer applies the updated embedded processor. The program control is used for test, calibration and monitor of electrode status. The instrument is equipped with intelligent monitoring sensors, which can accurately detect the sample, air bubble, waste reagent overflow alarm and standard reagent exhaustion alarm. Since the instrument is equipped with additional sample position indicating light and standard reagent position indicating light, it is convenient and simple for users to operate the instrument and to obtain the accurate tested results.

Advanced and Unique Flow-circuit Design

AC9000 series electrolyte analyzer applies the AUDICOM unique flow-circuit design. It is greatly different from the two present designs: Firstly, it applies the full electromagnetic valve to control flow-circuit instead of rotation flow-circuit distribution valve. The reliability of the electromagnetic valve manufactured in great quantities and standardization is superior to the rotation distribution valve produced by the instrument factories' own, thus increasing the reliability of the instrument. Secondly, it does not apply the flow-circuit with two independent channels including Co_2 and ion analysis. TCO_2 and ISE adopt the same channel and make the test respectively one after another. For this reason, flow-circuit is simple, required volume of sample decreases and reliability increases. The optimizing clearing procedure minimizes the cross pollution rate to the low level.

Independent and Convenient Sampler System

At present, the fully-automatic sampler instrument has two following forms: 1. the built-in fully-automatic sampler device is integrated with the instrument as a whole. As for this method, user must select the instrument as automatic method in purchase and it is complicated for maintenance. 2. An accessorial sampler device is connected to the manual sampler device in the instrument with a pipe. As for this method, since a pipe is added, the possibility of cross pollution rate greatly increases and the performance of the instrument decreases. AC9000 series electrolyte analyzer applies the mode with built-in automatic sampler unit and external independent rotating sample turntable, it is unnecessary for the user to change the original sampler pipeline so as to realize fully-automatic sampling in purchase. AC9000 series electrolyte analyzer built-in automatic sampler unit and the external rotating sample turntable are driven directly by step motors without gear belt transmission. The structure is simplified and rational and failure rate is low.

Three Measures to Ensure Accuracy

1.In order to ensure the accuracy, the reliability should be ensured firstly. All electrodes used for AC9000 series electrolyte analyzer are mounted in aluminum alloy electrode shield case. Particularly grounding sample electrode is added to make the electrode group operate stably and reliably. Even under the condition of interference, it is also used for accurate measurement.

2.The unique flow-circuit design ensures that the sampler route of sample is the shortest and simplest. In order to ensure the accuracy of all data analyzed and tested, it applies Millipore pipe diameter, air bubble test, full flushing of pipe, the method combining with automatic calibration and manual calibration and intelligent final identification for analysis method.

3.The international common calibration method is used for calibrating the tested results. The system has calibration of slope and intercept. The special quality control analysis procedures are used for the quality control report including average value (X), standard differentials (SD), coefficient of variation (CV) given after quality control measurement between both batch and batch and both day and day, either ensuring the testing level in clinical sample and indoor quality control, or adapting the QC samples of different factories so as to ensure the improvement of quality control level.

Friendly Interface and Overall Data Management

AC9000 series electrolyte analyzer applies LCD liquid crystal display, English interface, YES/NO digital key combination. It is simple for this optimum operation mode and hierarchical menu control to operate. Each of operators can grasp the operation method rapidly under English leading shown in Instruction Manual. AC9000 series electrolyte analyzer equipped with built-in printer can print all sample data, calculation data and reference value range conveniently. The internal memory of the instrument can store the measured data of 10000 above. The instrument is equipped with 232 communication interface used for communication of external computer and management software. It is convenient to check the data manually.

AC9000 SERIES
ELECTROLYTIC ANALYZER

IVD ISO 9001 ISO 13485 CE

Technical specifications

Model	AC9900	AC9600	AC9800	AC9100	AC9801	AC9101	AC9802
Measuring item	K、Na、Cl、	K、Na、Cl、	K、Na、Cl、	K、Na、Cl	K、Na、Cl	K、Na、Cl	K、Na、Cl
	Ca、pH、TCO_2	TCO_2	Ca、pH		Ca、pH		Ca、pH
Calculating item	AG、nCa、TCa	AG	nCa、TCa	—	nCa、TCa	—	nCa、TCa
Sampler method	Automatic				Manual		Manual
Measuring time	55s	55s	40s	40s	25s	25s	25s
Full time	90s	90s	60s	60s	40s	40s	40s
Sample size	160 μl	160 μl	100 μl	100 μl	100 μl	100 μl	100 μl
Data storage	10000	10000	10000	10000	10000	10000	10000
Communication interface	232 interface						
Display	240X64LCDLiquid crystal display, backlight						
Printer	58mm	58mm	58mm	58mm	58mm	58mm	58mm
Automatic sampler system	25-bit sampler system for option (20 samples, 2 QC, 1 emergency case, 1 washing)					—	
Air bubble test	Yes	Yes	Yes	Yes	Yes	Yes	—
Alarm for waste liquid overflow	Yes	Yes	Yes	Yes	Yes	Yes	—
Alarm for standard liquid level	Yes	Yes	Yes	Yes	Yes	Yes	—
Standard liquid level indicator lamp	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample liquid level indicator lamp	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power supply	AC220V ± 22V or AC110V ± 11V 50Hz~60Hz 50W						
Product size	408X390X230mm						408X390X220mm
Product weight	7kg(without sampler system) 1kg(sampler system)				6kg		5.5kg
Measuring method	ISE. TCO_2 adopts pressure-measuring method.						
Working condition	Temperature: 10℃ ~ 32℃ Relative humidity ≤85%						

Measurement parameters specifications

All Series products	Measuring item	Measuring scope	Resolving power	Precision
AC9900	K^+	0.50~15.00	0.01	CV≤1.0%
AC9600	Na^+	30.0~200.0	0.1	CV≤1.0%
AC9800	Cl^-	30.0~200.0	0.1	CV≤1.0%
AC9100	Ca^{2+}	0.10~5.00	0.01	CV≤1.0%
AC9801	pH (H^+)	4.00~9.00	0.01	CV≤1.0%
AC9101	TCO_2	4.0~70.0	0.1	CV≤3.0%
AC9802				

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- got the ISO900:2000 Quality Certificate
- got the ISO13485:2003 Quality Certificate
- CE approved by TUV Rheinland

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