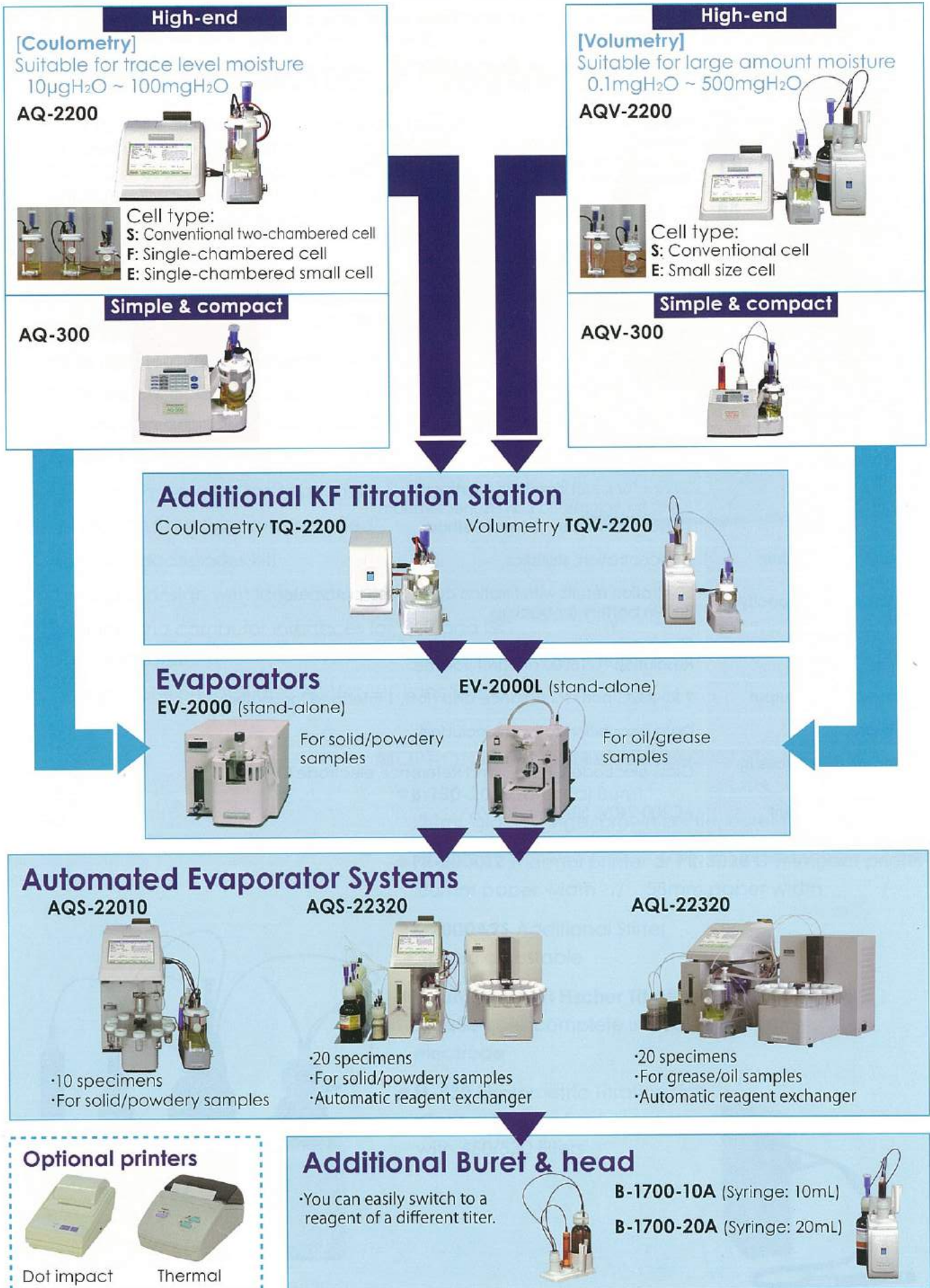

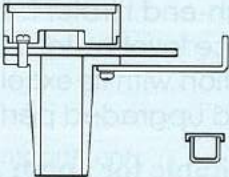


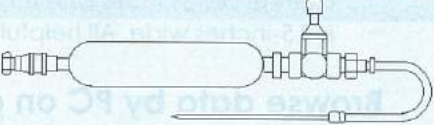
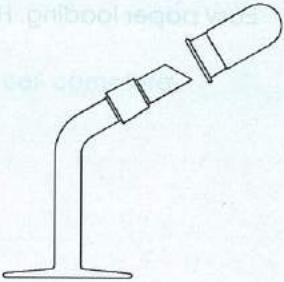


Configurations of Karl Fischer Titrators



Special Sampling Devices

Device name	Description	Figure
<p>Micro-solid sampler</p>	<p>For solid/powdery samples. Capacity: max. 3mL</p>	
<p>Ultra-micro solid sampler</p>	<p>For solid/powdery samples. *Especially for very small amount of sample. *Sample size: max.0.17mL</p>	
<p>Grease sampler</p>	<p>For viscous samples</p>	
<p>Gas sample foaming tube</p>	<p>Device for introducing gaseous sample into the titration cell.</p>	
<p>Liquefied gas sampler</p>	<p>For liquefied gas sample.</p>	
<p>Pellet sampler</p>	<p>For powder or pellets. *Use with EV-2000 Solid evaporator.</p>	

Karl Fischer Titrators

Coulometric Karl Fischer Titrator AQ-2200

The AQUACOUNTER® AQ-2200 high-end titrator is ideal for the trace level water content determination with its excellent capability and upgraded performance!

Suitable for : ppm ~ 1% H₂O



FEATURES

Economical & Eco-friendly small volume cell!

Single-chambered type

Two-chambered



Small



Standard

Three types of electrolytic cell are available now. One-room small size cell will require only 25mL anode solution, helpful to cut back cost and waste.

Enhanced memory data capacity!

Store results data on the USB memory stick and the stored data can be read out on the color display.

Two KF channels run in parallel -- Plug and Play!

Combining one additional KF station with either a volumetric or coulometric module enables two different measurements to be performed at the same time. With both a volumetric and coulometric channel, one can measure moisture over the entire range from a few ppm to 100% or double your sample throughput with 2 identical KF stations.

Intuitive control panel display!

Current status, data and function keys are displayed on a colorful and large screen. Color touch screen is 7.5-inches wide. All helpful and necessary information is always at hand!

Browse data by PC on a LAN connection!

Result data with curves can be viewed on your PC internet browsing program without optional software.

Built-in thermal printer!

Easy paper loading. High resolution, clear printout.



AQ-2200S configured for two-channel capability.

AQ-2200 Standard Specifications

ITEM	SPECIFICATIONS
Titration method	Coulometric Karl Fischer Titration
Multitasking function	Up to two KF titration stations (Double coulometric channels or combination of coulometric and volumetric channels)
End-point detection method	AC polarization potentiometric detection method
Background correction	Automatic correction (selectable ON/OFF)
Measuring range	10 μ gH ₂ O ~ 99mgH ₂ O
Display unit	μ gH ₂ O, ppm, %
Accuracy	CV \leq 0.3% (1g of 1mgH ₂ O/mL water-in-methanol measured 10 times)
Required measurement time	FAST : 1.8mgH ₂ O/min (30 μ gH ₂ O/sec.) MEDIUM : 1.2mgH ₂ O/min (20 μ gH ₂ O/sec.) SLOW : 0.6mgH ₂ O/min (10 μ gH ₂ O/sec.)
Electrolytic cell capacity	Standard : 150mL (min.usage: approx. 100mL), two compartments One-room : 150mL (min.usage: approx. 100mL), one compartment Small : 75mL (min. usage: approx. 25mL), one compartment
Memory data capacity	Internal memory: 100 data / channel USB flash memory (\geq 256MB): Max. approx. 9900 data
GLP compliant functions	Electrolytic cell maintenance, Measurement accuracy test
Calculation modes	6 modes corresponding to sample status and sampling methods
Printer	Built-in thermal printer (paper width: 58mm) *Optional external printer: Dot impact printer PR-302B
Touch panel screen	7.5 inch color graphics LCD
External input/output	RS-232C: 1 port, LAN: 1 port, USB flash memory stick: 1 port Interface for Evaporators: 1 port
Power supply	AC100-240V, 50/60Hz, 100VA
Dimensions / Weight	Main unit: 220(W) x 400(D) x 200(H) mm / Approx. 5kg

OPTIONS

● Additional Units



TQ-2200 Coulometric KF titration station

includes; Amp. unit, Stirrer K-2000A2 and Electrolytic cell complete
(choice: standard/one-room/small-volume)*



TQV-2200 Volumetric KF titration station

includes; Amp. unit, Stirrer K-2000A2 and Titration cell complete
(choice: standard/small-volume)*

*KF reagent is not provided.

● Evaporators See pages 18-21.

● Sampling devices See page 11.

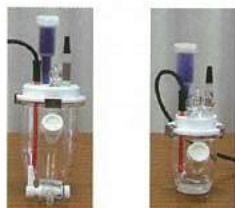
Volumetric Karl Fischer Titrator AQV-2200

The AQUACOUNTER® AQV-2200 Karl Fischer Volumetric high-end titrator is the perfect choice for a very wide range from 100ppm to 100% water content with its maximum capability for automation and future up-gradability.



FEATURES

Economical & Eco-friendly small-volume cell!



Standard Small

Small-volume titration cell requires only 20mL of titration solvent for accurate measurements. Less reagent volume reduces waste and easy to replace with fresh solvent for the next measurement.

Two KF channels run in parallel!

Combining one additional KF station with either a volumetric or coulometric module enables two different measurements to be performed at the same time. With both a volumetric and coulometric channel, one can measure moisture over the entire range from a few ppm to 100% or double your sample throughput with 2 identical KF stations.

Additional burets and buret-heads!

Compact additional burets and easy snap-on buret-heads are useful for quick KF reagent exchange or back titration applications.

Intuitive control panel display!

Current status, data and function keys are displayed on a colorful and large screen. All helpful and necessary information is always at hand!

Browse data by PC on a LAN connection!

Result data with curves can be viewed on your PC internet browsing program without optional software.

Enhanced memory data capacity!

Save & load parameters and results via USB flash memory.

Built-in thermal printer!

Easy paper loading. High resolution, clear printout.



AQV-2200S configured for two-channel capability.

AQV-2200 Standard Specifications

ITEM	SPECIFICATIONS
Titration method	Volumetric Karl Fischer Titration
Multitasking function	Up to two KF titration stations (Double volumetric channels or combination of coulometric and volumetric channels)
Detection method	AC polarization current detection/ potentiometric detection methods
Background correction	Automatic correction (selectable ON/OFF)
Measuring range	0.1 mgH ₂ O ~ 500mgH ₂ O (suitable for range: 10ppm ~ 100%)
Display unit	mL(min.display:0.001mL), mgH ₂ O,%,ppm
Electrolytic cell capacity	Standard : 150mL (min.usage: approx. 30mL) Small : 75mL (min. usage: approx. 20mL)
Memory data capacity	Internal memory: 100 data / channel USB flash memory (≥256MB): Max. approx. 9900 data
GLP compliant functions	Titration cell maintenance, Measurement accuracy test
Calculation modes	6 modes corresponding to sample status and sampling methods
Printer	Built-in thermal printer (paper width: 58mm) *Optional external printer: Dot impact printer PR-302B
Touch panel screen	7.5 inch color graphics LCD
External input/output	RS-232C: 1 port, LAN: 1 port, USB flash memory stick: 1 port Interface for Evaporators: 1 port
Power supply	AC100-240V, 50/60Hz, 60VA
Dimensions / Weight	Main unit: 220(W) x 400(D) x 200(H) mm / Approx. 5kg

OPTIONS

● Additional Units



TQ-2200 Coulometric KF titration station

includes; Amp. unit, Stirrer K-2000A2 and Electrolytic cell complete
(choice: standard/one-room/small-volume)*



TQV-2200 Volumetric KF titration station

includes; Amp. unit, Stirrer K-2000A2 and Titration cell complete
(choice: standard/small-volume)*

*KF reagent is not provided.

● Additional Buret

B-1700-20A (w/20mL syringe) **B-1700-10A** (w/10mL syringe)

● **Evaporators** See pages 18-21.

● **Sampling devices** See page 11.

Compact, simple and easy-to-operate!

AQ-300 Coulometric Karl Fischer Titrator

FEATURES

- Six (6) built-in calculation modes accommodate various states of samples.
- Four (4) files of preset conditions can be stored in memory.
- Free software for downloading titration results to a P.C.; includes the RS-232C cable
- CD training movie and data acquisition software "AQUANet" are included!
- Simple structure of electrolytic cell for easy maintenance



ppm ~ 1% H₂O

ITEM	SPECIFICATIONS
Titration method	Coulometric Karl Fischer titration
Electrolysis control method	Constant-current electrolysis, intermittent electrolysis near the end point
Titration control method	AC polarization potentiometric detection method
Measuring range	10µgH ₂ O ~ 99mgH ₂ O
Accuracy	CV: ≤ 0.3% (1g of 1mgH ₂ O/mL water-in-methanol measured 10 times)
Required measuring time	FAST: 1.2mgH ₂ O / min. (20µgH ₂ O / sec.) SLOW: 0.6mgH ₂ O / min. (10µgH ₂ O / sec.)
Electrolytic cell capacity	150mL
Electrolysis diaphragm	Ion exchange membrane
Display	16-Digit x 2-Line LCD with backlighting
Display unit	µgH ₂ O, %, ppm
File function	4 files for titration parameters
Data storage capacity	20 data
External input/Output	2 RS-232C ports for Balance and Host, 1 interface for printer
Software	Data acquisition software included.
GLP compliant functions	Maintenance information on reagents, electrode, membrane
Power requirement	AC100-240V, 50/60Hz, 100VA
Dimensions / Weight	310(W) x 270(D) x 300(H) mm / Approx. 5kg

OPTIONS

- Thermal printer PR-2000T2
- Dot impact printer PR-302B





AQV-300 Volumetric Karl Fischer Titrator

FEATURES

- Compact design
- Four (4) files of preset conditions can be stored in memory.
- Free software for downloading titration results to a P.C.; includes the RS-232C cable
- CD training movie included!
- Simple structure titration cell for easy maintenance
- Data acquisition software "AQUANet" is included.

1% ~ 100% H₂O

ITEM	SPECIFICATIONS
Titration method	Volumetric Karl Fischer titration
Titration control method	Continuous addition, intermittent addition of titrant while approaching the end point.
EP detection method	AC polarization potentiometric detection method
Buret capacity	10mL Reproducibility ± 0.01 mL (full discharge, SD for N=5)
Measuring range	0.1mgH ₂ O ~ 500mgH ₂ O
Titration cell capacity	150mL
Display	16-Digit x 2-Line LCD with backlighting
Display unit	mL (min. display: 0.001 mL), mgH ₂ O, %, ppm
File function	4 files for titration parameters
Data storage capacity	20 data
External input/Output	2 RS-232C ports for Balance and Host, 1 interface for printer
Software	Data acquisition software included.
GLP compliant functions	Maintenance information on reagents, electrode, membrane
Power requirement	AC100-240V, 50/60Hz, 100VA
Dimensions / Weight	310(W) x 270(D) x 300(H) mm / Approx. 6kg

OPTIONS

- Thermal printer PR-2000T2
- Dot impact printer PR-302B

