

Specifications

Method	Coulometric Karl Fischer Titration
Electrolysis Control	Constant Current Pulse Time Control
End Point Detection	Constant Current Polarization Potential Difference
Electrolysis Current	430mA
Titration Rate	Average 2.2mg H ₂ O/min (36μg H ₂ O/sec)
Background	Automatic Correction, Constant Display Background level at start of measurement is displayed.
Measurement Range	10μg to 999.9999mg H ₂ O
Sensitivity	0.1μg H ₂ O
Repeatability	<0.3%RSD at 1mg or more H ₂ O
Stirring Method	Magnetic Stirrer
Display	5.7 inch Color LCD Touch Panel
Languages	English, Japanese, Spanish Contact local distributor for other languages.
Calculation	Concentration based on editable formula. Statistical calculation, recalculation
Printer	Dot Impact Printer (Optional)
Vaporizers	VA-200, VA-210, VA-230, VG-200 (Step Temperature Control available on all Models)
External I/O	USB x 2: PC, Keyboard, Memory, Reagent Dispensing System RS232C x 2: Printer, Balance, Vaporizers
Working Temperature	5 to 40
Working Humidity	<85% No Condensation
Power Supply	AC 100/120/220/240V (50/60Hz) 60VA
Dimensions	Main Unit (without cell and battery) Approx. 220(W) x 350(D) x 360(H) mm
Weight	Main Unit Approx. 3.8kg (without cell and battery) Approx. 6.6kg (with battery)

Dimensions (mm)



Note:

Follow the instructions on the Manual to correctly install, connect and operate the instruments.
Contents of this catalogue are subject to change without prior notice.
The actual colors of the instrument may appear different from colors printed in the catalogue.
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Options

Dot Impact Printer



Paper	58mm width
Digits / line	24
Power Supply	AC100 to 240V, 7VA
Dimensions	Approx. 106(W) x 180(D) x 88(H) mm Approx. 470g

Carrying Case



The light carrying case will hold the CA-31 main unit and battery.

Dimensions	Approx. 340(W) x 485(D) x 500(H) mm Approx. 5.2kg
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Innovative Measurement Solutions

Karl Fischer
Moisture Meter
CA-31

From the land of
beautiful cherry blossoms and
superior technological craftsmanship
comes the all new coulometric
Karl Fischer moisture meter
Model CA-31



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MITSUBISHI CHEMICAL ANALYTECH CO., LTD.

Simple, Fast, Accurate.

The all new coulometric Karl Fischer moisture meter from Mitsubishi.

Simple

Just press start and inject sample to obtain moisture content in ppm or %.

Portable

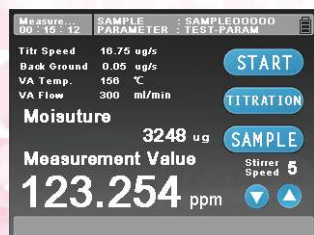
The unit can be taken out to the field for on site measurement with optional carrying case.



Characteristics

5.7-inch Color LCD Touch Panel

Easy to view, easy to operate. All of the essential information in one view. Simple buttons to set parameters and start measurement.



* Operation by USB keyboard is also possible for customers that do not prefer touchpanel.

Applications



Measure moisture in nearly any sample. Useful instrument in any type of analytical lab.



Monitor moisture level in insulating oil



Process control in petrochemical plants

Connect Vaporizers

Vaporizers from the 200 series can be connected to CA-31. This expands the scope of measurable samples to nearly everything. By using the step temperature function, the suitable temperature for an unknown sample can be easily determined

Connectable Models: VA-200, VA-210, VA-230, VG-200

*Additional power box is necessary for VA-200 and VA-230

Carrying Case

The optional carrying case with battery enables the CA-31 to be transported and used at any location.



Options

VA-200 (Boat Type)



Plastics, rubber, food, pharmaceutical, inorganic salts, other powders and solid samples

Heating Temp.	70 to 300
Heater	Transparent Conductive Glass, 150W
Sample Size	Up to 10g
Measuring Range	≥5ppm
Carrier Gas	Carrier Gas
Power Supply	AC100 to 120V, 120VA / AC220 to 240V, 740VA
Dimensions / Weight	Approx. 303(W) x 112(D) x 131(H) mm, 5.5kg

VA-210 (For Lubricants)



Lubricants, grease, tar, etc.

Heating Temp.	70 to 199
Heater	Transparent Conductive Glass, 200W
Sample Size	≤ 50g
Measuring Range	≥5ppm
Carrier Gas	Nitrogen, 0.1 to 0.5L/min
Power Supply	AC100 to 120V, 160VA / AC220 to 240V, 740VA
Dimensions / Weight	Approx. 120(W) x 220(D) x 230(H) mm, 3kg

VA-230 (Vial Type)



Place samples in a vial and measure. Suitable for plastics, rubber, food, pharmaceuticals, inorganic salts, etc.

Heating Temp.	70 to 300
Heater	Aluminum Block Heater, 60W x 2
Sample Size	Up to 10g, Vial size 10ml
Measuring Range	≥30ppm
Carrier Gas	Nitrogen, 0.1 to 0.5L/min
Power Supply	AC100 to 120V, 140VA / AC220 to 240V, 280VA
Dimensions / Weight	Approx. 300(W) x 135(D) x 220(H) mm, 3.5kg

VG-200 (For Liquefied Gas)



Vaporizes and injects a preset amount of liquefied gas into the CA-31 cell.

Applicable Gases	Propane, butane, other liquefied gases
Injection Rate	100 to 600ml/min
Injection Volume	1 to 99L
Pressure Resistance	1MPa
Heating Temperature	40 to 90
Power Supply	AC100 to 120V, 40VA / AC220 to 240V, 20VA
Dimensions / Weight	Approx. 150(W) x 350(D) x 270(H) mm, 6kg

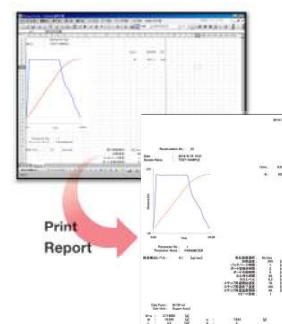
PC Software TV-31 (Titration Viewer)

TV-31 collects measurement data from CA-31 to PC. The collected data can be utilized to prepare reports in Microsoft® Excel® or Word®.

Report in Excel®

3 different report templates can be chosen.

Data such as statistical calculation results or list of multiple measurements can be selected and prepared into a report



Report in Word®

6 different report templates can be chosen.

Data such as measurement data, titration chart, parameters, and calculation formula can be chosen via template and printed on a 1 page report.

