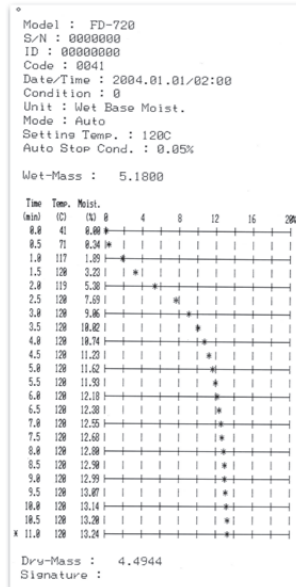


Option

VZ-330 Printer



Example of VZ-330 output

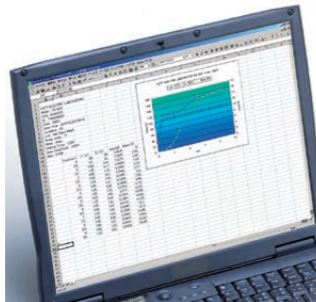


FW-100 Windshield with Deodorizer



FW-100 can be installed within the FD-720 to reduce errors caused by the influence of external airflow on the high precision balance. Further, since a deodorizing filter is provided on its upper portion, it is also possible to reduce odours created during heat drying.

FDL-01 Data logger software



By connecting the FD-720 to a PC in which the "Data logger software FDL-01" and MS Excel® are installed, it is possible to transfer and save the measurement data to the PC in real time. Also, it is possible to display the recorded measurement data graphically, so that the moisture and temperature condition changes can be visually confirmed. The graph can show the moisture, thermistor (T1) temperature, and radiation thermometer (T2) temperature.

Specifications

Measurement format	Evaporation weight loss method (Heat drying and weight loss method)
Measurement object	Powder, Particle, Liquid, Paste, etc.*1
Sample weight	0.5-120g using selective weight sampling method
Minimum displayable units	Switch between moisture 0.01 % or 0.1 %, mass 0.001g
Measurement range	0-100 % (wet base, solids) 0-500 % (dry base)
Reproducibility (Standard deviation)*2	Sample mass 5 g and above 0.05 % Sample mass 10 g and above 0.02 % (including water content)
Measurement modes	Automatic halting mode, Timed halting mode, High-speed drying mode, Low-speed drying mode, Stepped drying mode, Predictive measuring mode
Temperature range	30-180°C in 1-degree increments when using a thermistor
Display	Backlight LCD display (137 mm x 43 mm)
External output	RS-232C interface
Data memory	100 of data
Temp./humidity operating range	5 - 40 °C, maximum of 85 % RH (no condensation)
Heat source	Mid-infrared quartz heater (200 W x 2)
Temp. sensor	Thermistor
Sample dish	Stainless steel (Diameter: 130 mm; Depth 13 mm)
Power supply	AC100-120 V/220-240 V (50/60 Hz)
Power consumption	Maximum 900 W
Weight and dimensions	Net:5.4kg / Gross:9.5kg 220 x 415 x 220 mm (W x D x H)
Items included	2 Sample dishes, 2 Sample dish handlers, Sample dish tray, Wind shield, Power cord, Spoon & Spatula set, 2 Spare fuses (8A), 2 Packages of aluminum foil sheets (10 per package), Glass fiber sheets (10 sheets), Operating manual
Option	Printer (printer VZ-330, interface cable VZC-14), Printer paper (10 rolls), Aluminum foil sheets (500 sheets), Glass fiber sheets (100 sheets), GF-100 Temperature sensor testing kit, Data logger software FDL-01, Sample crusher TQ-100, Windshield with Deodorizer FW-100

*1 Material that will not cause dangerous chemical reactions when heated.

*2 As per Kett's in-house stipulated measurement conditions and standard samples.

⚠ Safety precautions

- For safe operation, ensure you read the Operating Manual before use.
- Do not attempt to measure material that will cause dangerous chemical reactions on heating. Further, the tester becomes very hot, so please take precautions against burns and/or fire.

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Management system enhancement department of the Japanese Standards Association (JSA) registers the Quality Management System of the above organization, with conform to JIS Q 9001, ISO 9001. The scope of the registration. Design, development and production management, calibration and repair of Moisture testers, NIR composition analyzers, Grain inspectors and Coating thickness testers.

Contact



To improve the product, specifications and the external appearance may be changed without notice. In addition, please note that due to printing, the product's color may appear different from the actual article.

1903-KA-0601-001K



Infrared Moisture Analyzer
Model FD-720

Accurate moisture measurement
with an excellent weight sensor



KETT ELECTRIC LABORATORY

Infrared Moisture Analyzer FD-720

FD-720 can change the moisture display from normal 0.1% to high accuracy 0.01% resolution. To realize its high accuracy, the 1mg resolution balance unit is installed.

The heater source is newly developed, a large 400watts Mid-wave infrared quartz heater controlled by the software for the drying process. It has "High-speed drying mode" that can reduce much of the measurement time for suitable sample materials. 10 measurement conditions can be saved in the instrument memory so that you don't have to enter the condition manually every time for each sample. The optional data logger software enables the data transfer linked with PC. The optional printer VZ-330 prints out the measurement result in a graph or numerical format.

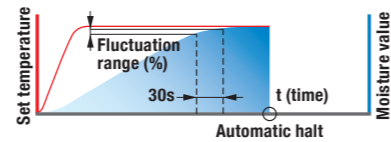
FD-720 is designed for all quality control and testing divisions where the most accurate moisture measurement is required.



• Various moisture measurements are possible with the multiple drying mode

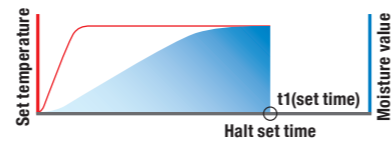
Automatic halting mode

The sensor will automatically halt if the 30s interval moisture change (fluctuation range%) goes below the set value.



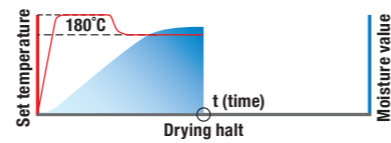
Timed halting mode

Sensor will halt at the pre-set time (t1).



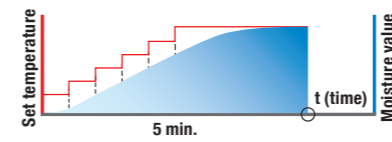
High-speed drying mode

Shortens the measuring time by the high-speed drying during the initial drying stage, after which when the moisture is reduced, the set temperature is returned to normal.



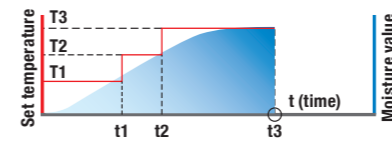
Low-speed drying mode

Slowly dries samples in which surface membrane forms or samples that may break down at high temperatures.



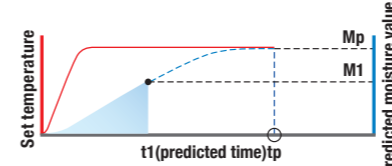
Stepped drying mode

Measures drying conditions in steps, and measures samples that contain a large amount of water, such as surface water or crystallized water.



Predictive (comparative) measuring mode

Predicts future changes from the drying process and determines a measurement value (Mp). Measuring time is shortened.



• Different forms of samples can be measured

Most samples which vaporize only moisture and cause no hazardous reaction under heating can be measured.



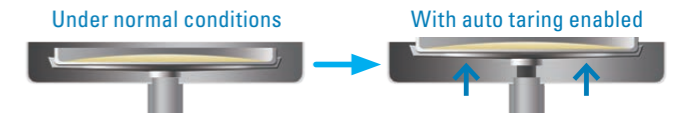
• An excellent weight sensor

The internal precision weighing balance is engineered with a UniBloc* cell. The mechanism provides excellent stability and a long operational life against repeated temperature changes.

*UniBloc is a trade name of Shimadzu Corporation.

• A new type of auto tare mechanism

Since the measurement is performed automatically while taking the zero-point calibration of the balance, scale drift is compensated even over long measurement times, allowing high precision measurements.



The sample dish rises once per 30 seconds and scale drift is reset.

• Newly developed heater

Mid-wave infrared quartz heater provides effective drying without interference for a wide range of samples. Besides the excellent drying performance, it offers a long operational life of 20,000 to 30,000 hours.

• The FD-720 displays 30s interval moisture change volume (ΔM) numerically and on a scale

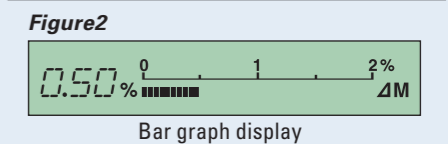
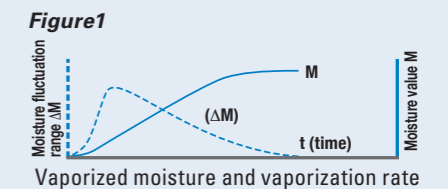
Moisture changes (ΔM) are shown on the display area. This is effective for measuring when drying is complete, and to determine the final measuring conditions.

Moisture vaporization rate display

In drying by infrared heater, a large amount of moisture vaporizes in early stage and vaporization slows towards the end of measurement.

The M curve in Figure1 shows a typical vaporization of moisture. M indicates the rate of vaporization. Monitoring M makes it possible to gauge how close the measurement is to completion.

The bar graph display makes it visible. (Figure2)



• Meets demands of various industries and fields

Pharmaceuticals, agriculture, food processing, textiles, chemicals, fertilizer, paper, construction etc.

- * Material that will not cause dangerous chemical reactions when heated.
- * Material that will dry due to evaporation of water or other substance that is to be measured.

