MA160

Fully Automatic Infrared Moisture Analyzer for Managing Complex Tasks

Advantages

- Simple method development
- Ultra-high-speed measurements
- Reliable performance testing
- Effortless cleaning
- User-friendly operation

Product Description

The MA160 moisture analyzer is easy to use and provides very fast and repeatable results. Its assistant function supports the user in developing new methods, while its file management facilitates the administration of various methods for the different products. The MA160 enables the transfer of these methods between individual instruments. Thanks to its BetterClean design, it is easy to clean. The status light indicates the process status and the menu function "Performance Test" simplifies tests for repeatability. The MA160 is ideal for users who need a more flexible and reliable moisture analyzer.

Applications

The moisture analyzer can be used for quick and reliable determination of the moisture content of liquid, pasty and solid substances using the thermogravimetric method. The MA160 is designed for a variety of samples and varying requirements, each requiring its own method and effective methods management, such as in QA laboratories and process control. Typical areas of applications for the MA160 include the testing of foods, beverages, pharmaceuticals, chemicals, sugar, paper materials and environmental protection products.

Performance

Fully automatic endpoint determination eliminates the cumbersome capture of termination criteria for the MA160. The moisture analyzer monitors the drying process and stops the measurement once the sample weight is constant.

Assistant software guides users to develop new methods for the analysis of different samples. New methods like these are developed and finally released with three easy test cycles. Up to 100 methods can be stored on the MA160.

Two high-performance AURI heating elements with 600 watts of power uniformly heat samples in the MA160. These heating elements are fast, extremely rugged and durable. Compared to glass heating lamps, e.g. infrared lamps or halogen heaters, they are especially resistant to dirt and vibrations.

The functionality of the MA160 can be verified at any time with the performance testing function.

Technical Specifications

Max. weighing capacity	200 g
Repeatability, average	for initial sample weight approx. > 1 g: ± 0.2 %
	for initial sample weight approx. > 5 g: ± 0.05 %
Readability	1 mg, 0.01 %
Typical sample quantity	5 – 15 g
Result display	Moisture content in %M and g │ dry weight in %S and g │ ATRO in %M/S
Temperature range and settings	40°C–200°C, stand-by temperature selectable from 40 – 100°C in increments of 1°C
Sample heating	Infrared radiation by an AURI heater, 600 W
Heating programs	Standard drying, gentle drying
Shutoff parameter	Optional: – Fully automatic – Semiautomatic mg (1 – 50 mg │ 5 – 300 sec.) – Semiautomatic % (0.1 – 5.0 % │ 5 – 300 sec.) – Timer settings (02:00 – 99.59 min.) – Manual
Access to sample chamber	Removable hood with wide opening angle, SoftClose mechanism
Operator guidance features	– Intuitive user interface, including touch screen and easy-to-understand menu guidance – Weighing-in help and target value attainment function – Curve display
Language selection	English, German, French, Spanish, Italian, Russian, Chinese, Polish, Japanese, Portuguese, Turkish
Methods	100 methods saved in non-volatile memory
Method development	Assistant software guides users to develop new methods in approx. 3 easy test cycles
Methods management	Method menu with file management option, generation of a method library, up to 100 methods
Data transfer	SD card, method import and export function
Sample forceps	Easy-to-handle sample dish
Performance test	Menu function to test the device's repeatability using the ReproEasy pad
Memory for data storage	Results are saved for the last 999 measurements
Status light	Displays the status "analysis running / START", "analysis completed / STOP" or "analysis error"
Sample inspection	LED-illuminated sample chamber, inspection window with grid above the hood
Draft shield	Integrated draft shield
Cleaning	Removable hood, inspection window with grid and sample chamber plate for easy cleaning in the dishwasher
Log printout	– Printout using the optional, internal printer YDP30; alternatively, the printer YDP20-OCE can be used with an adapter (YCC03-D09) – GLP-compliant, inalterable standard or user-configurable │ paper-saving short record
Monitoring of inspection and testing equipment	External calibration using optional calibration weight
Data interface	Mini USB – Automatic detection of the Sartorius printers YDP30 and YDP40 – Direct data transfer to Microsoft® Windows programs without any additional software – Programmable data output interval – Data transfer protocols SBI, table format, text format
Frequency	50/60 Hz
Power consumption	Max. 640 VA
Temperature range	10°C – 30°C
Housing dimensions (W × D × H)	215 × 400 × 210 mm
Weight	Approx. 6.2 kg

Available Models

MA160 115V/230V   Automatic voltage detection 115V/230V

Accessories

6965542	Disposable sample pans, 80 pcs., aluminum, $\varnothing$ 90mm
6906940	Glass fiber pad for analysis of pasty and fatty samples, hard quality, 80 pcs., $\varnothing$ 90 mm
6906941	Glass fiber pad for analysis of liquid and fatty samples, soft quality, 200 pcs., $\varnothing$ 90 mm
YHP01MA	ReproEasy pads, 10 pcs. for performance testing to verify the repeatability of the analyzer
YCW512-AC-02	External calibration weight, 100 g (E2) with DKD certificate
YDP40	Standard printer
YDP30	Premium GLP laboratory printer
YCC03-D09	Adapter cable for connecting the YDP20-OCE printer

Equipment Supplied

Moisture analyzer, power cord, user manual, glass fiber filters, aluminum sample pans, sample forceps, performance test pads