



# MA35M Moisture Analyzer

Fully Automatic Infrared Moisture Analyzer with Metal Tube Heater

Moisture Analyzer



- Time-saving and convenient alternative to a drying oven
- Utmost measurement accuracy and durability „made in Germany“
- Ideally suited for robust production applications
- Particularly simple operator guidance using self-explanatory pictograms
- Focused on the most important options

Max. weighing capacity	35 g
Repeatability, typical	Starting at an initial sample weight of approx. 1 g: $\pm 0.2\%$ Starting at an initial sample weight of approx. 5 g $\pm 0.05\%$
Readability	1 mg, 0.01%
Typical sample quantity	5 – 15 g
Reading display	% moisture content   % dry weight   RATIO value   g residue   mg weight loss
Temperature range and settings	40°C–160°C, in increments of 1 degree
Sample heating	Infrared heating using a metal tube heater (IR dark radiator)
Heating programs	Standard drying
Shutoff criteria	Optional: - Fully automatic - Timer setting (1 × 0.1–99 min.) - Manual
Access to sample chamber	Hinged cover with large opening angle
Measuring program	1 program saved in a non-volatile memory (freely selectable parameters)
Data storage	Results are saved until the start of the next measurement
Operator guidance features	Symbols representing corresponding functions
Parameter   Data entry	Via softkeys, menu-specific key allocation
Report printout	- Printout using the optional, external printer YDP20-OCE - Inalterable standard configuration GLP report for measuring results   calibration   adjustment (5 languages selectable) - Short report minimizing paper usage



Open sample chamber



MA35M featuring the accessory YDS05MA:  
To replace glass panels with metal panels for use in food production

Test equipment monitoring	– External calibration using optional weight sets
Data interface	RS232 C-S/V24-V28, 7 data bits (ASCII) 1 parity bit
Voltage frequency	48-60 Hz
Power consumption	Max. 400 VA
Operating temperature range	10°C...30°C
Housing dimensions (W × D × H)	224 × 366 × 191
Weight	Approx. 5.8 kg

### Available Models

	Supply voltage
MA35M-000115V1	115 V +15%, -20%
MA35M-000230V1	230 V +15%, -20%

### Accessories

6965542	Disposable sample pans, 80 units, aluminum, round, Ø 90 mm
6906940	Fiberglass pad, Ø 90 mm for pasty and fatty samples, hard quality, 80 units
6906941	Fiberglass pad, Ø 90 mm for liquid and fatty samples, soft quality, with high suction force, 200 units
YAT01MA	500 single-use pipettes
YDS05MA	Panel replacement set, aluminum panels for replacing glass panels, to meet FDA HACCP regulations (conversion kit)
YSC02	SartoCollect, software for data communication between moisture analyzer and PC (connecting cable must be ordered separately) Prerequisite: MS Windows 2000   Windows XP Professional, Vista Ultimate, Windows 7 Ultimate.
YSS43-02	External calibration weight, 30 g ± 0.3 mg with DKD certificate
YDP20-OCE	Data printer, suitable for external verification, with date, time, statistics, numerator including cable
6906918	Ink ribbon for data printer
6906937	Paper rolls for data printer, 5 rolls, 50 m each

### Equipment Supplied

- Moisture analyzer with data interface
- Power cord
- User manual
- 80 alu sample pans
- 1 pair of forceps

Sartorius Weighing Technology GmbH  
Weender Landstrasse 94-108  
37075 Goettingen, Germany

Phone +49.551.308.0  
Fax +49.551.308.3289

info.mechatronics@sartorius.com  
www.sartorius-mechatronics.com

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# MA100C Moisture Analyzer

Fully Automatic Infrared Moisture Analyzer with Ceramic Heating Element

Moisture Analyzer



- Time-saving and convenient alternative to a drying oven
- Comprehensive range of options for flexible adaptation to various drying tasks
- Ideally suited for ambitious measuring tasks in the fields of quality control or research
- Utmost safety due to self-calibrating system and full GMP suitability
- Particularly well suited for samples with demanding drying behaviour and very dry samples

Max. weighing capacity	100 g
Repeatability, typical	Starting at an initial sample weight of approx. 1 g: $\pm 0.1\%$   starting at an initial sample weight of approx. 5 g: $\pm 0.02\%$
Readability	1 mg, 0.01%   0.1 mg, 0.001%
Typical sample quantity	5 – 15 g
Reading display	% moisture content (optionally available with conversion factor)   % dry weight   RATIO value   mg weight loss   g residue   g/kg residue   g/l residue
Temperature range and settings	30°C–180°C, stand-by temperature selectable from 30–100°C in increments of 1 degree
Sample heating	Infrared heating using a round ceramic heating element
Heating programs	Standard, quick, gentle and phase drying
Shutoff criteria	Optional: <ul style="list-style-type: none"> <li>- Fully automatic</li> <li>- SPRM mode (optimization to a reference system)</li> <li>- Semi-automatic (1–50 mg/5–300 sec.)</li> <li>- Semi-automatic (0.1–5.0%/5–300 sec.)</li> <li>- Timer setting (3× 0.1–999 min.)</li> <li>- Timer setting + fully/semi-automatic (2× 0.1–999 min. + automatic)</li> <li>- Manual</li> </ul>
Access to sample chamber	Motorized cover
Measuring program	30 programs saved in a non-volatile memory (freely selectable parameters)
Data storage	Result statistics for the last 9999 measurements/program
Operator guidance features	Menu-driven, alphanumeric dialogue text (5 languages selectable)
Parameter   data entry	<ul style="list-style-type: none"> <li>- Optimized text entry via softkeys</li> <li>- Numeric entry via keypad</li> <li>- Optional data entry via barcode scanner</li> </ul>
Report printout	<ul style="list-style-type: none"> <li>- Printout using the optional, internal printer YDP01MA</li> <li>- Configurable GLP-report for measuring results   calibration   adjustment (5 languages selectable)</li> </ul>



Easy to clean



With optional printer YDP01MA

Test equipment monitoring	<ul style="list-style-type: none"> <li>– Internal calibration weight</li> <li>– Automatic reproTEST for the weighing system</li> <li>– Automatic temperature calibration with optional temperature adjustment set YTM03MA</li> <li>– Documentation in accordance with the applicable quality assurance requirements</li> </ul>
Safety	Parameter settings password-protected against unauthorized access
Voltage frequency	48-60 Hz
Power consumption	Max. 700 VA
Operating temperature range	10°C...30°C
Housing dimensions (W × D × H)	350 × 453 × 156
Weight	Approx. 8.0 kg

#### Available Models

	Supply voltage
MA100C-000115V1	115 V +15%, –20%
MA100C-000230V1	230 V +15%, –20%

#### Accessories

6965542	Disposable sample pans, 80 units, aluminum, round, Ø 90 mm
6906940	Fiberglass pad, Ø 90 mm for pasty and fatty samples, hard quality, 80 units
6906941	Fiberglass pad, Ø 90 mm for liquid and fatty samples, soft quality, with high suction force, 200 units
YAT01MA	Single-use pipettes for weighing liquid samples, 500 units
YDS03MA	Panel replacement set, aluminum panels for replacing glass panels, to meet FDA HACCP regulations (conversion kit)
YSC02	SartoCollect, software for data communication between moisture analyzer and PC (connecting cable must be ordered separately) Prerequisite: MS Windows 2000   Windows XP Professional, Vista Ultimate, Windows 7 Ultimate.
YCW4528-02	External calibration weight, 50 g (E2) with DKD certificate
YTM03MA	Temperature adjustment set with manufacturer certificate for adjustment of the heat source
YDP01MA	Data printer, suitable for integration
YDP20-OCE	Data printer, suitable for external verification, with date, time, statistics, numerator including cable
6906918	Ink ribbon for data printer
6906937	Paper rolls for data printer, 5 rolls, 50 m each

#### Equipment Supplied

- Moisture analyzer with data interface
- Power cord
- User manual
- 80 alu sample pans
- In-use dust cover for keypad
- 1 pair of forceps
- Laminated short-form manual (6 languages)

Sartorius Weighing Technology GmbH  
Weender Landstrasse 94–108  
37075 Goettingen, Germany

Phone +49.551.308.0  
Fax +49.551.308.3289

info.mechatronics@sartorius.com  
www.sartorius-mechatronics.com

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# MA100H Moisture Analyzer

Fully Automatic Infrared Moisture Analyzer with Halogen Heater

Moisture Analyzer



- Time-saving and convenient alternative to a drying oven
- Comprehensive range of options for flexible adaptation to various drying tasks
- Ideally suited for ambitious measuring tasks in the fields of quality control or research
- Utmost safety due to self-calibrating system and full GMP suitability
- Ideally suited for samples with high moisture content due to quick control behaviour

Max. weighing capacity	100 g
Repeatability, typical	Starting at an initial sample weight of approx. 1 g: $\pm 0.1\%$   starting at an initial sample weight of approx. 5 g: $\pm 0.02\%$
Readability	1 mg, 0.01%   0.1 mg, 0.001%
Typical sample quantity	5 – 15 g
Reading display	% moisture content (optionally available with conversion factor)   % dry weight   RATIO value   mg weight loss   g residue   g/kg residue   g/l residue
Temperature range and settings	30°C–180°C, stand-by temperature selectable from 30–100°C in increments of 1 degree
Sample heating	Infrared heating using a halogen round heater
Heating programs	Standard, quick, gentle and phase drying
Shutoff criteria	Optional: - Fully automatic - SPRM mode (optimization to a reference system) - Semi-automatic (1–50 mg/5–300 sec.) - Semi-automatic (0.1–5.0%/5–300 sec.) - Timer setting (3× 0.1–999 min.) - Timer setting + fully/semi-automatic (2× 0.1–999 min. + automatic) - Manual
Access to sample chamber	Motorized cover
Measuring program	30 programs saved in a non-volatile memory (freely selectable parameters)
Data storage	Result statistics for the last 9999 measurements/program
Operator guidance features	Menu-driven, alphanumeric dialogue text (5 languages selectable)
Parameter   data entry	- Optimized text entry via softkeys - Numeric entry via keypad - Optional data entry via barcode scanner
Report printout	- Printout using the optional, internal printer YDP01MA - Configurable GLP-report for measuring results   calibration   adjustment (5 languages selectable)



Easy to clean



With optional printer YDP01MA

Test equipment monitoring	<ul style="list-style-type: none"> <li>- Internal calibration weight</li> <li>- Automatic reproTEST for the weighing system</li> <li>- Automatic temperature calibration with optional temperature adjustment set YTM03MA</li> <li>- Documentation in accordance with the applicable quality assurance requirements</li> </ul>
Safety	Parameter settings password-protected against unauthorized access
Voltage frequency	48-60 Hz
Power consumption	Max. 700 VA
Operating temperature range	10°C...30°C
Housing dimensions (W × D × H)	350 × 453 × 156
Weight	Approx. 8.0 kg

#### Available Models

	Supply voltage
MA100H-000115V1	115 V +15%, -20%
MA100H-000230V1	230 V +15%, -20%

#### Accessories

6965542	Disposable sample pans, 80 units, aluminum, round, Ø 90 mm
6906940	Fiberglass pad, Ø 90 mm for pasty and fatty samples, hard quality, 80 units
6906941	Fiberglass pad, Ø 90 mm for liquid and fatty samples, soft quality, with high suction force, 200 units
YAT01MA	Single-use pipettes for weighing liquid samples, 500 units
YSC02	SartoCollect, software for data communication between moisture analyzer and PC (connecting cable must be ordered separately) Prerequisite: MS Windows 2000   Windows XP Professional, Vista Ultimate, Windows 7 Ultimate.
YCW4528-02	External calibration weight, 50 g (E2) with DKD certificate
YTM03MA	Temperature adjustment set with manufacturer certificate for adjustment of the heat source
YDP01MA	Data printer, suitable for integration
YDP20-OCE	Data printer, suitable for external verification, with date, time, statistics, numerator including cable
6906918	Ink ribbon for data printer
6906937	Paper rolls for data printer, 5 rolls, 50 m each

#### Equipment Supplied

- Moisture analyzer with data interface
- Power cord
- User manual
- 80 alu sample pans
- In-use dust cover for keypad
- 1 pair of forceps
- Laminated short-form manual (6 languages)

Sartorius Weighing Technology GmbH  
Weender Landstrasse 94-108  
37075 Goettingen, Germany

Phone +49.551.308.0  
Fax +49.551.308.3289

info.mechatronics@sartorius.com  
www.sartorius-mechatronics.com

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# MA100Q Moisture Analyzer

Fully Automatic Infrared Moisture Analyzer with Coiled Quartz Heating Element (CQR)

Moisture Analyzer



- Time-saving and convenient alternative to a drying oven
- Comprehensive range of options for flexible adaptation to various drying tasks
- Ideally suited for ambitious measuring tasks in the fields of quality control or research
- Utmost safety due to self-calibrating system and full GMP suitability
- Excellently suited for high-temperature drying up to 230°C and standard applications

Max. weighing capacity	100 g
Repeatability, typical	Starting at an initial sample weight of approx. 1 g: $\pm 0.1\%$   starting at an initial sample weight of approx. 5 g: $\pm 0.02\%$
Readability	1 mg, 0.01%   0.1 mg, 0.001%
Typical sample quantity	5 – 15 g
Reading display	% moisture content (optionally available with conversion factor)   % dry weight   RATIO value   mg weight loss   g residue   g/kg residue   g/l residue
Temperature range and settings	30°C–230°C, stand-by temperature selectable from 30–100°C in increments of 1 degree
Sample heating	Infrared heating using a coiled quartz heating element (CQR)
Heating programs	Standard, quick, gentle and phase drying
Shutoff criteria	Optional: <ul style="list-style-type: none"> <li>- Fully automatic</li> <li>- SPRM mode (optimization to a reference system)</li> <li>- Semi-automatic (1–50 mg/5–300 sec.)</li> <li>- Semi-automatic (0.1–5.0%/5–300 sec.)</li> <li>- Timer setting (3x 0.1–999 min.)</li> <li>- Timer setting + fully/semi-automatic (2x 0.1–999 min. + automatic)</li> <li>- Manual</li> </ul>
Access to sample chamber	Motorized cover
Measuring program	30 programs saved in a non-volatile memory (freely selectable parameters)
Data storage	Result statistics for the last 9999 measurements/program
Operator guidance features	Menu-driven, alphanumeric dialogue text (5 languages selectable)
Parameter   data entry	<ul style="list-style-type: none"> <li>- Optimized text entry via softkeys</li> <li>- Numeric entry via keypad</li> <li>- Optional data entry via barcode scanner</li> </ul>
Report printout	<ul style="list-style-type: none"> <li>- Printout using the optional, internal printer YDP01MA</li> <li>- Configurable GLP-report for measuring results   calibration   adjustment (5 languages selectable)</li> </ul>



Easy to clean



With optional printer YDP01MA

Test equipment monitoring	<ul style="list-style-type: none"> <li>– Internal calibration weight</li> <li>– Automatic reproTEST for the weighing system</li> <li>– Automatic temperature calibration with optional temperature adjustment set YTM03MA</li> <li>– Documentation in accordance with the applicable quality assurance requirements</li> </ul>
Safety	Parameter settings password-protected against unauthorized access
Voltage frequency	48-60 Hz
Power consumption	Max. 700 VA
Operating temperature range	10°C...30°C
Housing dimensions (W × D × H)	350 × 453 × 156
Weight	Approx. 8.0 kg

#### Available Models

	Supply voltage
MA100Q-000115V1	115 V +15%, -20%
MA100Q-000230V1	230 V +15%, -20%

#### Accessories

6965542	Disposable sample pans, 80 units, aluminum, round, Ø 90 mm
6906940	Fiberglass pad, Ø 90 mm for pasty and fatty samples, hard quality, 80 units
6906941	Fiberglass pad, Ø 90 mm for liquid and fatty samples, soft quality, with high suction force, 200 units
YAT01MA	Single-use pipettes for weighing liquid samples, 500 units
YSC02	SartoCollect, software for data communication between moisture analyzer and PC (connecting cable must be ordered separately) Prerequisite: MS Windows 2000   Windows XP Professional, Vista Ultimate, Windows 7 Ultimate.
YCW4528-02	External calibration weight, 50 g (E2) with DKD certificate
YTM03MA	Temperature adjustment set with manufacturer certificate for adjustment of the heat source
YDP01MA	Data printer, suitable for integration
YDP20-0CE	Data printer, suitable for external verification, with date, time, statistics, numerator including cable
6906918	Ink ribbon for data printer
6906937	Paper rolls for data printer, 5 rolls, 50 m each

#### Equipment Supplied

- Moisture analyzer with data interface
- Power cord
- User manual
- 80 alu sample pans
- In-use dust cover for keypad
- 1 pair of forceps
- Laminated short-form manual (6 languages)

Sartorius Weighing Technology GmbH  
Weender Landstrasse 94-108  
37075 Goettingen, Germany

Phone +49.551.308.0  
Fax +49.551.308.3289

info.mechatronics@sartorius.com  
www.sartorius-mechatronics.com

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## MA150C Moisture Analyzer

Fully Automatic Infrared Moisture Analyzer with Ceramic Heating Element

Moisture Analyzer



- Time-saving and convenient alternative to a drying oven
- Utmost measurement accuracy and durability "made in Germany"
- 20 program memory modules for quick method changing
- Very even heat distribution, ideally suited for thermally sensitive samples
- Optional version without glass, for use in food production applications

Max. weighing capacity	150 g
Repeatability, typical	Starting at an initial sample weight of approx. 1 g: $\pm 0.2\%$   starting at an initial sample weight of approx. 5 g: $\pm 0.05\%$
Readability	1 mg, 0.01%
Typical sample quantity	5 – 15 g
Reading display	% moisture content   % dry weight   RATIO value   g residue   g/kg residue   g/l residue
Temperature range and settings	40°C–180°C, stand-by temperature selectable from 40–100°C in increments of 1 degree
Sample heating	Infrared heating using a round ceramic heating element
Heating programs	Standard drying, gentle drying
Shutoff criteria	Optional: - Fully automatic - Semi-automatic (1–50 mg/5–300 sec.) - Semi-automatic (0.1–5.0%/5–300 sec.) - Timer setting (0.1–99.9 min.) - Manual
Access to sample chamber	Hinged cover
Measuring program	20 programs saved in a non-volatile memory (freely selectable parameters)
Data storage	Results are saved until the start of the next measurement
Operator guidance features	Menu-driven, alphanumeric dialogue text (5 languages selectable) and symbols
Parameter   data entry	Via softkeys, menu-specific key allocation
Report printout	- Printout using the optional, external printer YDP20-OCE - Configurable GLP-report for measuring results   calibration   adjustment (5 languages selectable)



Open sample chamber



MA150C featuring the accessory YDS04MA:  
To replace glass panels with metal panels for use  
in food production

Test equipment monitoring	– External calibration using optional weight sets – Automatic temperature calibration with optional temperature adjustment set YTM03MA
Safety	Parameter settings password-protected against unauthorized access
Voltage frequency	48-60 Hz
Power consumption	Max. 700 VA
Operating temperature range	10°C...30°C
Housing dimensions (W × D × H)	213 × 320 × 180.5
Weight	Approx. 5.5 kg

#### Available Models

	Supply voltage
MA150C-000115V1	115 V +15%, -20%
MA150C-000230V1	230 V +15%, -20%

#### Accessories

6965542	Disposable sample pans, 80 units, aluminum, round, Ø 90 mm
6906940	Fiberglass pad, Ø 90 mm for pasty and fatty samples, hard quality, 80 units
6906941	Fiberglass pad, Ø 90 mm for liquid and fatty samples, soft quality, with high suction force, 200 units
YAT01MA	Single-use pipettes for weighing liquid samples, 500 units
YDS04MA	Panel replacement set, aluminum panels for replacing glass panels, to meet FDA HACCP regulations (conversion kit)
YSC02	SartoCollect, software for data communication between moisture analyzer and PC (connecting cable must be ordered separately) Prerequisite: MS Windows 2000   Windows XP Professional, Vista Ultimate, Windows 7 Ultimate.
YCW5128-02	External calibration weight, 100 g (E2) with DKD certificate
YTM03MA	Temperature adjustment set with manufacturer certificate for adjustment of the heat source
YDP20-OCE	Data printer, suitable for external verification, with date, time, statistics, numerator including cable
6906918	Ink ribbon for data printer
6906937	Paper rolls for data printer, 5 rolls, 50 m each

#### Equipment Supplied

- Moisture analyzer with data interface
- Power cord
- User manual
- 80 alu sample pans
- In-use dust cover for keypad
- 1 pair of forceps

Sartorius Weighing Technology GmbH  
Weender Landstrasse 94-108  
37075 Goettingen, Germany

Phone +49.551.308.0  
Fax +49.551.308.3289

info.mechatronics@sartorius.com  
www.sartorius-mechatronics.com

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# MA150Q Moisture Analyzer

Fully Automatic Infrared Moisture Analyzer with Coiled Quartz Heating Element (CQR)

Moisture Analyzer



- Time-saving and convenient alternative to a drying oven
- Utmost measurement accuracy and durability "made in Germany"
- 20 program memory modules for quick method changing
- Quick heating and particularly even heat distribution

Max. weighing capacity	150 g
Repeatability, typical	Starting at an initial sample weight of approx. 1 g: $\pm 0.2\%$   starting at an initial sample weight of approx. 5 g: $\pm 0.05\%$
Readability	1 mg, 0.01%
Typical sample quantity	5 – 15 g
Reading display	% moisture content   % dry weight   RATIO value   mg weight loss   g residue   g/kg residue   g/l residue
Temperature range and settings	40°C–220°C, stand-by temperature selectable from 40–100°C in increments of 1 degree
Sample heating	Infrared heating using a coiled quartz heating element (CQR)
Heating programs	Standard drying, gentle drying
Shutoff criteria	Optional: <ul style="list-style-type: none"> <li>- Fully automatic</li> <li>- Semi-automatic (1–50 mg/5–300 sec.)</li> <li>- Semi-automatic (0.1–5.0%/5–300 sec.)</li> <li>- Timer setting (0.1–99.9 min.)</li> <li>- Manual</li> </ul>
Access to sample chamber	Hinged cover
Measuring program	20 programs saved in a non-volatile memory (freely selectable parameters)
Data storage	Results are saved until the start of the next measurement
Operator guidance features	Menu-driven, alphanumeric dialogue text (5 languages selectable) and symbols
Parameter   data entry	Via softkeys, menu-specific key allocation
Report printout	- Printout using the optional, external printer YDP20-OCE - Configurable GLP-report for measuring results   calibration   adjustment (5 languages selectable)



Open sample chamber



Version without glass

Test equipment monitoring	– External calibration using optional weight sets – Automatic temperature calibration with optional temperature adjustment set YTM03MA
Safety	Parameter settings password-protected against unauthorized access
Voltage frequency	48-60 Hz
Power consumption	Max. 700 VA
Operating temperature range	10°C...30°C
Housing dimensions (W × D × H)	214 × 320 × 180.5
Weight	Approx. 5.5 kg

#### Available Models

	Supply voltage	Design
MA150C-000115V1	115 V +15%, -20%	Due to the design of the coiled quartz heating element, this model is not available as a version without glass
MA150C-000230V1	230 V +15%, -20%	Due to the design of the coiled quartz heating element, this model is not available as a version without glass

#### Accessories

6965542	Disposable sample pans, 80 units, aluminum, round, Ø 90 mm
6906940	Fiberglass pad, Ø 90 mm for pasty and fatty samples, hard quality, 80 units
6906941	Fiberglass pad, Ø 90 mm for liquid and fatty samples, soft quality, with high suction force, 200 units
YAT01MA	Single-use pipettes for weighing liquid samples, 500 units
YDS04MA	Panel replacement set, aluminum panels for replacing glass panels, to meet FDA HACCP regulations (conversion kit)
YSC02	SartoCollect, software for data communication between moisture analyzer and PC (connecting cable must be ordered separately) Prerequisite: MS Windows 2000   Windows XP Professional, Vista Ultimate, Windows 7 Ultimate.
YCW5128-02	External calibration weight, 100 g (E2) with DKD certificate
YTM03MA	Temperature adjustment set with manufacturer certificate for adjustment of the heat source
YDP20-OCE	Data printer, suitable for external verification, with date, time, statistics, numerator including cable
6906918	Ink ribbon for data printer
6906937	Paper rolls for data printer, 5 rolls, 50 m each

#### Equipment Supplied

- Moisture analyzer with data interface
- Power cord
- User manual
- 80 alu sample pans
- In-use dust cover for keypad
- 1 pair of forceps

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Weender Landstrasse 94-108  
37075 Goettingen, Germany

Phone +49.551.308.0  
Fax +49.551.308.3289

info.mechatronics@sartorius.com  
www.sartorius-mechatronics.com

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## Sartorius LMA200PM

Speed meets analytical precision



- Can be used for liquid and pasty samples with a moisture content of approx. 8 - 100%
  - Analysis time takes just 40 - 120 seconds (depends on sample and moisture content)
  - Easy two-key operation in the routine mode
- Endpoint determination
- Fully automatic; sensors for mass and moisture
  - User-defined as a loss of weight/time
  - Timer mode
  - Built-in analytical weighing system with 70 g capacity and 0.1 mg resolution

If the sample contains a high moisture content, microwave drying is the fastest and most effective thermogravimetric method (loss-on-drying principle) for moisture analysis. Developed for measuring moisture content ranging from approx. 8% to 100%, the LMA200PM performs moisture analysis in a fraction of the time it takes for other thermogravimetric methods. It delivers results between approx. 40–120 seconds on average. With a cylindrical design, a focused emission of microwave energy is channeled vertically through dual apertures at the bottom of the chamber. This concentrates the microwave energy specifically to the sample. During the test, a carousel spins the sample, permitting an even distribution of microwave energy. This prevents hot and cold spots from occurring, a familiar problem with conventional microwave analyzers.

### Built-in analytical weighing system

The moist and dry weight of the sample required for calculating the loss of moisture is measured by a built-in analytical weighing system featuring 0.1 mg resolution. Thanks to its monolithic design (the cell is robotically etched from a single block), this system is particularly suitable for use in a moisture analyzer, because it considerably reduces zero point drift during heat exposure compared with classic weighing systems.

### Intelligent endpoint determination

A moisture sensor integrated in the exhaust system of the sample chamber monitors the progress of drying. When the measurement begins, the moisture of the air inside the sample chamber continuously increases as water evaporates from the sample. Once the sample has dried and no longer releases water, the air moisture content drops back to its original level – a clear indication of the end point. At the same time, the built-in weighing system monitors the weight progression and confirms when the sample reaches a constant weight. This dual monitoring system ensures optimal moisture analysis results.

### High speed

Two factors play a major role for ultra-fast measurements. First, the sample must absorb microwave energy within the shortest time possible and transform this into heat energy. For this purpose, the LMA200PM has a cylindrically shaped sample chamber that optimally focuses the microwave radiation on the sample. Second, the resulting water vapor must be transported away from the sample as fast as possible to obtain fast analysis results. To accomplish this, a sample is applied to a glass fiber pad that allows water vapor to evaporate not only from top of the pad and upward through the sample, but also from the bottom of the pad. An exhaust system draws water vapor out of the sample chamber, thus preventing the effects of condensation.

## Technical specifications | accessories

Model	LMA200PM
Weighing capacity (g)	70
Measuring accuracy of the weighing system (g)	0.0001
Reproducibility on average for initial sample weight starting at approx. 1 g (%)	± 0.05
Sample carriers	90 mm Ø (3½") glass fiber pads
Display modes	% moisture, ppm moisture, % volatile components, % dry weight (solids), ppm dry weight, g dry weight, mg loss on drying, % RATIO
Measuring range	Approx. 8–100% moisture
Sample heating	Microwave generator with 1,000 W input power
Power control for heating	2–100%, adjustable in 1% increments
Endpoint determination	<ul style="list-style-type: none"> <li>– Fully automatic, by means of sensors for mass and moisture</li> <li>– User-defined as loss of weight/time: 1–50 mg/1–99 sec. 0.1–9.9 %/1–99 sec.</li> <li>– Timer mode: 0.1–99.9 min.</li> </ul>
Analysis time (in seconds)	Approx. 40–120 (depends on sample and moisture)
Programs	320 saved to non-volatile memory
Data printer	Thermal printer, built-in
Moisture analysis report	<ul style="list-style-type: none"> <li>– User-configured GLP record</li> <li>– The report can be printed on non-fading paper by the built-in thermal printer.</li> </ul>
Operator guidance	<ul style="list-style-type: none"> <li>– Menu-driven, alphanumeric dialogue text (English, French, German, Italian and Spanish selectable)</li> <li>– 5 pre-programmed function keys</li> </ul>
Data interfaces	<ul style="list-style-type: none"> <li>– 1 × RS-232 port for PC</li> <li>– 1 × Ethernet port</li> </ul>
Housing dimensions (mm in.) W × D × H	510 × 535 × 304   20 × 21 × 12
Weight, approx. (kg   lb)	22   48.5
Power source	230 V, 50 Hz, 1,200 VA (LMA200PM-000EU) 120 V, 60 Hz, 1,200 VA (LMA200PM-000US)
Power consumption (VA)	1,200 max.

Accessories	Order no.
80 glass fiber pads	6906940
500 disposable pipettes	YAT01MA
5 rolls of printer paper, each with 20 m (65 ft.)	69MA30100

Sartorius Weighing Technology GmbH  
Weender Landstrasse 94–108  
37075 Goettingen, Germany

Phone +49.551.308.0  
Fax +49.551.308.3289

Sartorius UK Ltd.  
Longmead Business Centre  
Blenheim Road, Epsom  
Surrey KT19 9QQ, U.K.

Phone +44.1372.737159  
Fax +44.1372.729927

Sartorius Corporation  
5 Orville Drive, Suite 200  
Bohemia, NY 11716, USA

Phone +1.631.254.4249  
Toll-free +1.800.635.2906  
Fax +1.631.254.4253

Sartorius Canada Inc.  
2179 Dunwin Drive #4  
Mississauga, ON L5L 1X2, Canada

Phone +1.905.569.7977  
Toll-Free +1.800.668.4234  
Fax +1.905.569.7021

[www.sartorius.com](http://www.sartorius.com)