

# The New MA160 Moisture Analyzer Manages Your Sophisticated Tasks



# Fast, Precise and Easy Moisture Analysis

To be able to perform fast and accurate analysis on the widest variety of product samples, you need a reliable instrument that gives you maximum flexibility.

The MA160 uses the thermogravimetric method to determine the moisture content of liquids, pastes and solids – conveniently, reliably and in minimum time. It delivers outstandingly fast, absolutely reproducible results and features an intuitive Method Development Assistant that enables you to develop new methods in just three easy steps. The MA160 gives you the functions you need for professional and secure management of the methods you have created.

analyzers. During a measurement, a status light indicates the current progress of a measurement.

These methods can be stored via an SD card and transferred to other MA160

At the touch of a button, you can run the built-in performance test with a ReproEasy pad to check the functionality of the MA160 – ensuring flawless performance over the long term.



Reliable Method Development Assistant function

High memory capacity for results and methods

User-friendly operation

Effortless cleaning

Display of the measurement status

Reliable performance testing

Compatibility with Sartorius MA150

MA35 mode





# **Applications**

With its optimized AURI heating unit, the MA160 delivers high-speed measurements.

The MA160 is ideal for moisture analysis of the widest variety of samples under different conditions. Its Method Development Assistant function enables you to create your own methods for different samples and efficiently manage the methods in a library. This supports your work in the QC lab and in process monitoring.

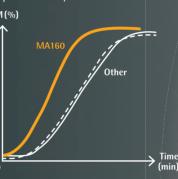
Typical areas of application for the MA160 include moisture analysis of foods, beverages, pharmaceuticals, chemicals, paper materials and products for environmental protection.

# Features

Both the high-performance AURI heating/ unit and the sample chamber's geometry ensure rapid heating and fast uniform drying of your sample with up to 30%/ quicker analysis time.

020202020202020202020202020

sartorius



# er-friendly operation

The MA160's intuitive user interface, including a touch screen, and easy-tounderstand menu prompts for guidance enable you to easily operate the analyzer – without having to study the manual first.

MA160 features a high memory capacity, letting you store up to 100 different methods and efficiently manage them in a library. In addition, the results of the last 999 measurements are automatically saved in the data memory, ensuring traceable GMP-compliant documentation at any time.

The MA160's Method Development Assistant function solves the timeconsuming problem of having to determine and evaluate the right parameters. It enables you to develop new methods quickly in just three simple steps.

The light indicates the current status of a measurement in progress:
"running | START," "analysis completed |
STOP," "analyzer OFF" or "error."

A ReproEasy Pad in combination with the built-in performance test lets you check the functionality of the entire MA160 moisture analyzer within just 5 minutes. This test guarantees reliable results, saving you from going to the trouble of performing extensive temperature adjustment.

# Compatibility with Sartorius MA15

The downward compatibility of the analyzer lets you readily use MA150 method parameters. The additional MA35 mode even enables you to run moisture analysis with parameters developed for the MA35.

# Effortless cleaning

The BetterClean design lets you easily and thoroughly clean the instrument parts. Additionally, the heating unit and the sample chamber plate are removable for cleaning in a laboratory washer.



# **Technical Specifications**

Max. weighing capacity	200 g
Reproducibility, typical	Starting at an initial sample weight of approx. 1 g: ±0.2%, Starting at an initial sample weight of approx. 5 g: ±0.05%
Readability	1 mg, 0.01%
Typical sample quantity	5 g – 15 g
Display modes for results	Moisture content in % M and % g   dry weight in % S and g   ATRO (ratio) in % M/S
Temperature range and	40°C – 200°C, in increments of 1°C
settings	Standby temperature selectable from 50°C – 120°C
Sample heating	Infrared heating using an AURI heating unit, 600 W
Heating programs	Standard drying, gentle drying, MA35 mode
Shutoff parameter	Fully automatic, semi-automatic, manual and with timer settings
Forceps for samples	For easy handling of sample pans
Data interface	Mini USB port; automatic printer detection, direct transfer to Microsoft <sup>®</sup> Office
Data transfer	SD card; function for importing and exporting methods and results
Housing dimensions (W $\times$ D $\times$ H)	215 × 400 × 210 mm (8.5" × 15.7" × 8.3")
Weight	Approx. 6.2 kg (approx. 13.6 lbs.)

# Accessories COCEEAS

6965542	Disposable sample pans, 80 units, aluminum, 90 mm $\varnothing$
6906940	Glass fiber pads for analysis of pasty and fatty samples, hard quality; 80 units; 90 mm $\varnothing$
6906941	Glass fiber pads for analysis of liquid and fatty samples, soft quality; 200 units; 90 mm $\varnothing$
YHP01MA	ReproEasy pads, 10 units for perfomance testing to check the functionality of the analyzer's heating unit and weighing system
YCW512-AC-02	External calibration weight, 100 g (E2) with DAkkS calibration certificate
YDP40	Standard laboratory printer
YDP30	Premium GLP laboratory printer
YCC03-D09	Adapter cable for connecting a YDP20-OCE printer
YDP20-0CE	Data printer
YST01MA	Forceps for samples
YMD02B (incl. short report)	Customer-specific service for individual method development at the Sartorius Application Laboratory in Goettingen, Germany, or in the USA

<sup>\*</sup> DAkkS = German accreditation body recognized throughout Europe







ReproEasy pad

Disposable sample pans

### Europe

**Germany** Sartorius Lab Instruments GmbH & Co. KG Otto-Brenner-Strasse 20 37079 Goettingen

Phone +49.551.308.0 Fax +49.551.308.3289

#### France & Suisse Romande

Sartorius France 2, rue Antoine Laurent de Lavoisier ZA de la Gaudrée 91410 Dourdan

Phone +33.1.70.62.50.00 Fax +33.1.64.59.76.39

Sartorius Austria GmbH Modecenterstrasse 22 1030 Vienna

Phone +43.1.7965760.0 Fax +43.1.7965760.24

#### Belgium

Sartorius Belgium N.V. Rue Colonel Bourg 105 1030 Bruxelles

Phone +32.2.756.06.90 Fax +32.2.481.84.11

#### Finland & Baltics

Sartorius Biohit Liquid Handling Oy Laippatie 1 00880 Helsinki

Phone +358.9.755.951 Fax +358 9 755 95 200

Hungary Sartorius Hungária Kft. Kagyló u. 5. 2092 Budakeszi

Phone +3623.457.227 Fax +3623.457.147

#### Ireland

Sartorius Ireland Ltd.
Unit 41. The Business Centre Stadium Business Park Ballycoolin Road Dublin 11

Phone +353.1.8089050 Fax +353.1.8089388

#### Italy

Sartorius Italy S.r.l. Viale A. Casati, 4 20835 Muggiò (MB)

Phone +39.039.4659.1 Fax +39.039.4659.88

#### Netherlands

Sartorius Netherlands B.V.

Phone +31.30.60.53.001 Fax +31.30.60.52.917

info.netherlands@sartorius.com

#### Poland

Sartorius Poland sp.z o.o. ul. Wrzesinska 70 62-025 Kostrzyn

Phone +48.61.6473830 Fax +48.61.6473839

#### Russian Federation

LLC "Sartorius RUS Uralskaya str. 4, Lit. B 199155 St. Petersburg

Phone +7.812.327.53.27 Fax +7.812.327.53.23

#### Spain & Portugal

Sartorius Spain, S.A. Avda. de la Industria, 32 Edificio PAYMA 28108 Alcobendas (Madrid)

Phone Spain +34.913.586.095 Phone Portugal +351.800.855.800 Fax Spain +34.913.589.623 Fax Portugal +351.800.855.799

#### Switzerland

Sartorius Mechatronics Switzerland AG Ringstrasse 24a 8317 Tagelswangen (ZH)

Phone +41.44.746.50.00 Fax +41.44.746.50.50

#### ПK

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

Phone +44.1372.737159 Fax +44.1372.726171

#### Ukraine

LLS "Sartorius RUS" Post Box 440 "B" 01001 Kiev, Ukraine

Phone +380.44.411.4918 Fax +380.50.623.3162

### **Americas**

#### IISA

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

Phone +1.631.254.4249 Toll-free +1.800.635.2906 Fax +1.631.254.4253

#### Argentina

Sartorius Argentina S.A. Int. A. Ávalos 4251 B1605ECS Munro **Buenos Aires** 

Phone +54.11.4721.0505 Fax +54.11.4762.2333

#### Brazil

Sartorius do Brasil Ltda Avenida Senador Verqueiro 2962 São Bernardo do Campo CEP 09600-000 - SP- Brasil

Phone +55 11 4362 8900 Fax +55.11.4362.8901

#### Canada

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

Phone +1.905.569.7977 Toll-Free +1.800.668.4234 Fax +1.905.569.7021

#### Mexico

Sartorius de México, S.A. de C.V. Libramiento Norte de Tepotzotlan s/n, Colonia Barrio Tlacateco, Municipio de Tepotzotlan, Estado de México. C.P. 54605

Phone +52.55.5562.1102 Fax +52 55 5562 2942

leadsmex@sartorius.com

#### Peru

Sartorius Peru S.A.C. Av. Emilio Cavenecia 264 San Isidro 15073 Lima, Perú

Phone +51.1.441 0158 Fax +51.1.422 6100

### Asia | Pacific

#### Australia

Sartorius Australia Pty. Ltd. Unit 5, 7-11 Rodeo Drive Dandenong South Vic 3175

Phone +61.3.8762.1800 Fax +61.3.8762.1828

#### China

Sartorius (Shanghai) Trading Co., Ltd. 3rd Floor, North Wing, Tower 1 No. 4560 Jinke Road Zhangjiang Hi-Tech Park Pudong District Shanghai 201210, P.R. China

Phone +86.21.6878.2300 Fax +86.21.6878.2882

Hong Kong Sartorius Hong Kong Ltd. Unit 1012, Lu Plaza 2 Wing Yip Street Kwun Tong Kowloon, Hong Kong

Phone +852.2774.2678 Fax +852.2766.3526

#### India

Sartorius Weighing India Pvt. Ltd. #69/2-69/3, NH 48, Jakkasandra, Nelamangala Tq 562 123 Bangalore, India

Phone +91.80.4350.5250 Fax +91.80.4350.5253

#### lanan

Sartorius Japan K.K. 4th Fl., Daiwa Shinagawa North Bldg. 8–11, Kita-Shinagawa 1-chome Shinagawa-ku, Tokyo, 140-0001 Japan

Phone +81.3.3740.5408 Fax +81.3.3740.5406

#### Malaysia

Sartorius Malaysia Sdn. Bhd Lot L3-E-3B, Enterprise 4 Technology Park Malaysia Rukit Ialil 57000 Kuala Lumpur, Malaysia

Phone +60.3.8996.0622 Fax +60.3.8996.0755

#### Singapore

Sartorius Singapore Pte. Ltd 1 Science Park Road, The Capricorn, #05-08A Singapore Science Park II Singapore 117528

Phone +65.6872.3966 Fax +65.6778.2494

## South Korea

Sartorius Korea Ltd. 8th Floor, Solid Space B/D, PanGyoYeok-Ro 220, BunDang-Gu SeongNam-Si, GyeongGi-Do, 463-400

Phone +82.31.622.5700 Fax +82.31.622.5799

## Thailand

Sartorius (Thailand) Co. Ltd. 129 Rama 9 Road. Huavkwang Bangkok 10310

Phone +66.2643.8361-6 Fax +66.2643.8367