Moisture Analyzers

**Halogen Moisture Analyzers
HX204 / HS153**

Peace of Mind Assured

Boost Productivity

Moisture Matters
Best Results Delivered

METTLER TOLEDO

Excellence Moisture Analyzers
Peace of Mind and Productivity

When moisture matters, METTLER TOLEDO Excellence Moisture Analyzers deliver outstanding value. The innovative hanging weighing pan provides best measurement performance with highly reliable results in the shortest time possible. The One Click™ Moisture graphical user interface enables smooth and fast operation, featuring real-time drying curves and control charts. Rugged design and the new easy-cleaning concept ensure a long service life and disruption-free operation, both in the lab and on the factory floor.

Accurate and fast results
The new Excellence Moisture Analyzers feature advanced halogen technology, the key to fast heating and precise temperature control. Combined with a high performance MonoBloc weighing cell, hanging weighing pan and up to 0.1 mg resolution, the new Moisture Analyzers deliver results with unsurpassed accuracy, speed and reliability.

One Click™ Moisture
The graphical user interface makes you feel at home right away. Shortcuts enable the user to start his methods with one click.

Real-time drying curve
Smart graphics visualize the measurement on the display. Control charts trend the moisture content over time.

Clean in 30 seconds
The flat surface is completely smooth and sealed. Cleaning a moisture analyzer has never been as easy and fast. Spills are contained in the draft shield and can be easily removed before the next measurement.

Halogen heating

Motorized lid (HX204 only)

Temperature sensor

Flat surfaces

MonoBloc
weighing cell
200g, 0.1mg (HX204 only)

Hanging weighing pan

FACT inside (HX204 only)

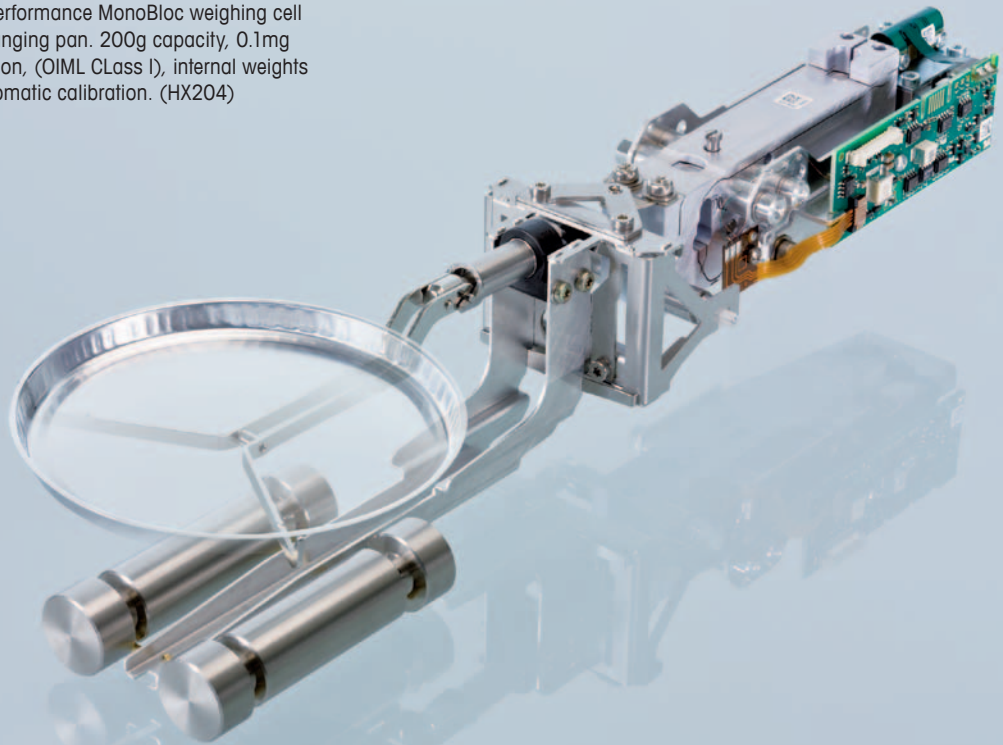Electronic LevelControl (HX204 only)

One Click™ Moisture
graphical user interface

USB
flash drive

Real-time
drying curve

Tip
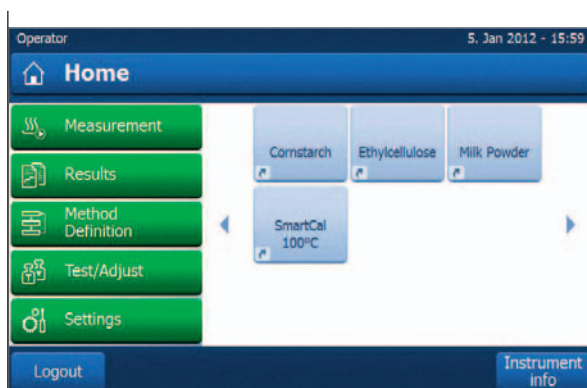See the moisture analyzer in action at
▶ **www.mt.com/moisture**

High performance MonoBloc weighing cell with hanging pan. 200g capacity, 0.1mg resolution, (OIML CLass I), internal weights for automatic calibration. (HX204)
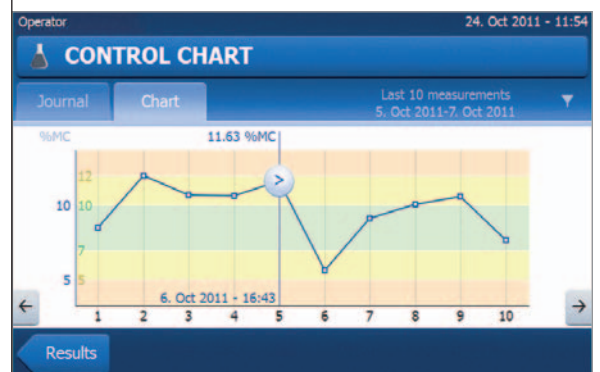
Hanging weighing pan

The innovative hanging weighing pan concept moves the weighing cell away from spilled samples and from the heat of the sample chamber, which improves measurement results by eliminating adverse thermal effects on the weighing cell. It also makes the instrument rugged and easy to clean as the surface underneath the weighing pan is completely flat and sealed. Spilled samples can no longer obstruct the weighing cell.
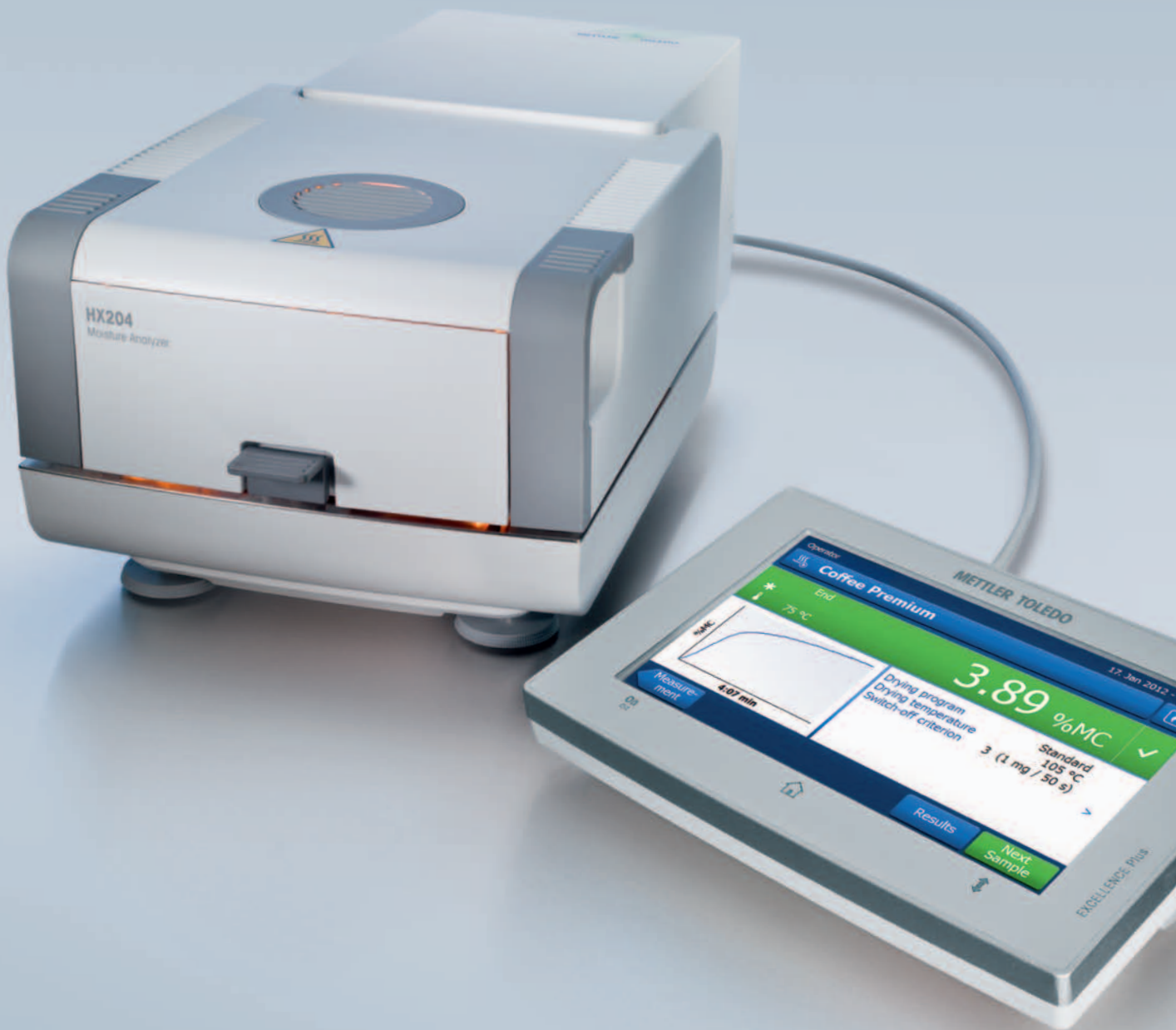
One Click™ Moisture

Tailored to your needs

The One Click Moisture graphical user interface can be adapted to your needs with customized home screens. Personalized shortcuts allow starting measurements with a single click.

Control charts

Powerful control charts and real-time drying curves provide full transparency. Individual control and warning limits can be defined for each product for quick pass/fail decisions in the lab and on the factory floor.

HX204 & HS153
Innovation for better moisture analysis

Operational Excellence
In Lab and Factory

When moisture content determines productivity, the HX204 and HS153 Halogen Moisture Analyzers are your instruments of choice. High speed testing and powerful real-time graphics, combined with ruggedness and ease-of-use, answer the needs of companies striving to optimize operations in laboratories and factories.

Free access – Rugged by design
Free, unobstructed access to the weighing chamber from all sides simplifies handling of samples. The weighing chamber is completely sealed without any openings. The weighing cell cannot be damaged by spilled samples.

Start measuring immediately
The intuitive user interface and integrated workflows reduce training effort and enable users to start working right away.

Compact footprint saves bench space
Minimal space is required when using the optional stand. The instrument is no wider than a sheet of A4 paper.
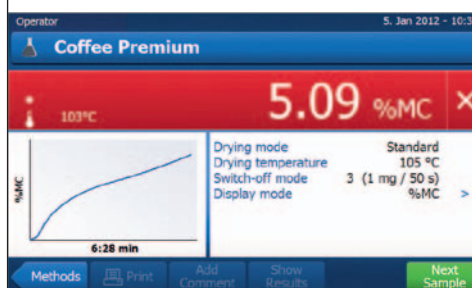
One-Click operation
Personalizable home screen and shortcuts ensure simple and error-free operations. Only the information needed to perform daily work is displayed. Shortcuts start drying methods with one click.

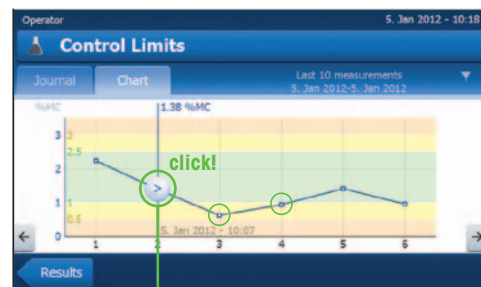# Measure Smart with One Click™ Moisture

Easy Result Tracking
With Real-time Charts

Production of food, chemicals and many other goods requires regular sample testing to maintain full process control. Control limits with pass/fail thresholds can be defined for each product. Integrated control charts trend the moisture content over time. Each measurement is saved as graphical drying curve and can be recalled with one click.
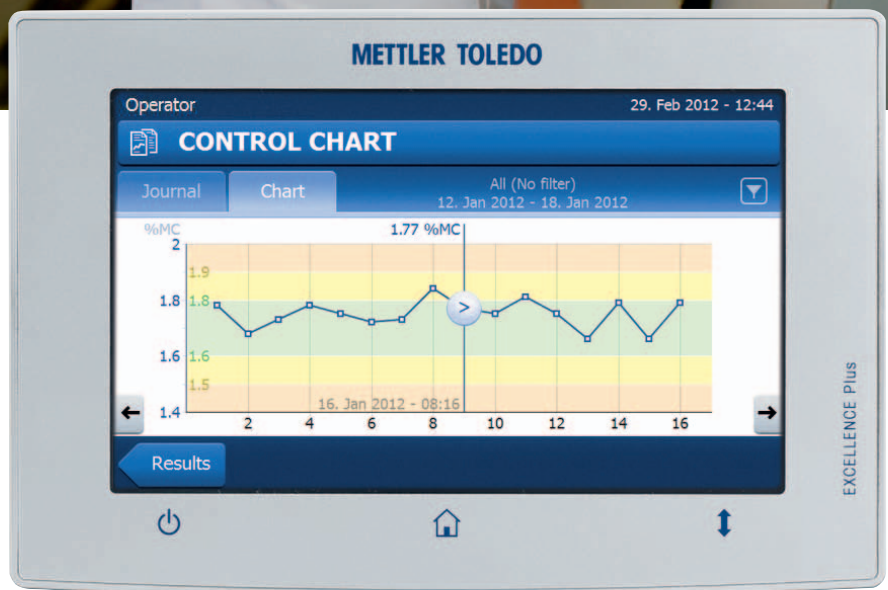

Pass/Fail decisions
Individual control limits for each product simplify pass/fail decisions. The result is clearly indicated by a display colored green or red.

Automatic moisture trending
A control chart trends the moisture content for each product tested. Every individual measurement can be recalled with a click for later review, if required.

State-of-the-art data handling
USB flash drives make configuring instruments, sharing drying methods and exporting results very fast and simple. Data files. e.g. drying methods, can be forwarded by e-mail to a different location and uploaded there with ease.

Boost productivity

Peace of Mind Assured
Solutions for Regulated Industries

METTLER TOLEDO has designed the HX204 Excellence Moisture Analyzer to meet the strict demands of research, quality control and production. With a resolution of 0.001%MC and excellent repeatability the HX204 meets the demands of applications requiring maximum measurement accuracy. Advanced security functions ensure systematic instrument verification for correct results at all times. The HX204 is the ideal instrument for use in highly regulated industries.
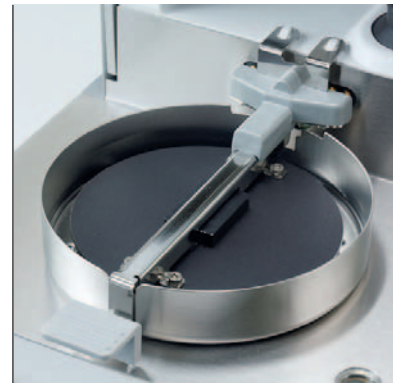
FACT Internal calibration
FACT automatically adjusts and calibrates the balance using internal weights for accurate and consistent results. Frequent manual testing with external weights becomes unnecessary, saving time and effort.

LevelControl – Instrument is always leveled
The built-in electronic level control warns if the instrument is not leveled correctly. Compliance with SOP's is ensured and automatically documented.

Temperature calibration at point of use
The HX204 can be adjusted and tested at operating temperature, ensuring that the instrument is performing optimally under your specific working conditions.

One Click™ Moisture – Compliance included

Individual user rights make sure that quality guidelines are followed. The home screen is personalizable to suit each user's needs, providing only the information required to perform daily tasks. Password protection and access rights prevent errors and ensure SOPs are met.

Always consistent results – only from METTLER TOLEDO

Demonstrate to auditors and customers that your moisture analyzers produce correct results. METTLER TOLEDO has combined state-of-the art instruments, the new reference substance SmartCal™ and a risk-based testing recommendation to a simple and fast solution for testing and documenting instrument performance.

Reliable moisture results? Learn more at
▸ **www.mt.com/smartcal**

Everything under control

Accessories and Technical Data

Make the best of your Moisture Analyzer: high-quality sample handling accessories and certified quality management tools ensure that the instrument delivers optimal performance - for highly accurate and reliable moisture results.
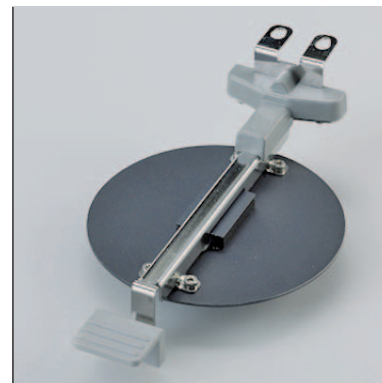

Aluminum sample pans
Thanks to the optimal surface finish of the aluminum pans, the sample material is distributed evenly over the whole pan, ensuring highly repeatable measurements.

Glass fiber filter pads
The adsorbent glass fiber filters reduce testing time for liquid and pasty substances by up to 50% and prevent the formation of a surface film.
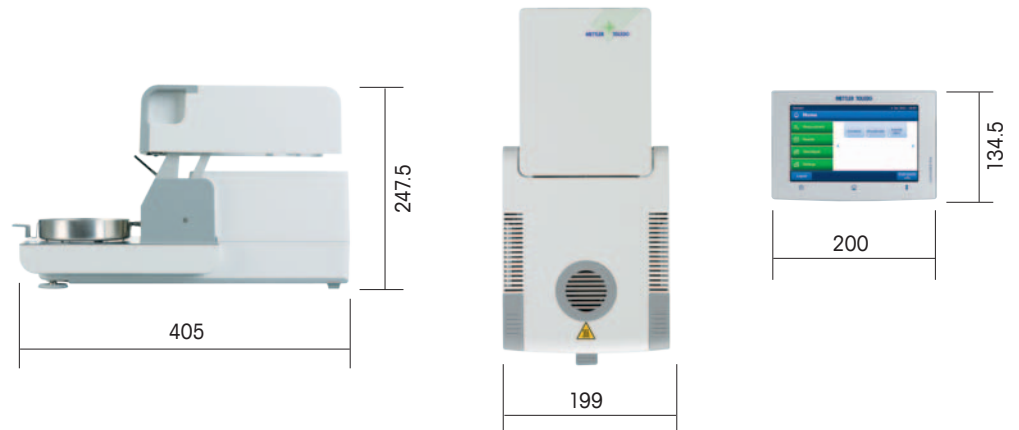

HX/HS certified temperature adjustment
Automatic calibration and adjustment routines minimize handling and prevent errors.

Sample Handling	Description	Part No.	Quantity
	Aluminum sample pan	00013865	80
	Filters	00214464	100
	Professional aluminum sample pan (extra strong)	11113863	80
	Steel sample pan (reusable), height 6 mm	00214462	3
	HX/HS sample pan handler	30020852	1
Quality Management	cSmartCal (certified, set of 24)	30005791	24
	cSmartCal (certified, set of 12)	30005793	12
	SmartCal (set of 24)	30005790	24
	SmartCal (set of 12)	30005792	12
	HX/HS certified temperature adjustment kit	30020851	1
	HX/HS adjustment weight, 100g certified	11119531	1
Printers	RS-P42 printer with RS232 interface	00229265	1
	RS-P25 compact printer with RS232 interface	11124300	1
	Printer paper	00072456	5
	Printer paper, self adhesive	11600388	3
	Printer ribbon, black	00065975	2
Accessories	HX/HS stand for terminal	30018474	1
	HX/HS dust filter	30020838	50
	HX/HS protective cover for terminal	30003957	1
	HX/HS anti-theft device	11600361	1
	HX/HS transportation case	30020836	1

Dimensions in mm
HX204 and HS153

Technical Data*
HX204 and HS153

Moisture Content	HX204	HS153
Readability	0.01% / 0.001%	0.01%
Repeatability (sd) with 2 g sample	0.05%	0.05%
Repeatability (sd) with 10 g sample	0.01%	0.01%
Display modes	% MC, % DC, % ATRO MC/DC, g, g/kg MC, g/kg DC	% MC, % DC, % ATRO MC/DC, g, g/kg MC, g/kg DC
Balance		
Capacity	200g	150g
Readability	1mg/0.1mg	1mg
Drying unit		
Temperature range	40-230°C	40-230°C
Lid-opening	Motorized	Manual
Routine Tests		
Balance test	Sensitivity at free weight, 100g default	Sensitivity at free weight, 100g default
Heating module test	2-point temp. calibration at adjust-ment values plus free definable temp.	2-point temp. calibration at 100/160°C
Internal calibration (FACT)	Yes	No
Instrument adjustment		
Balance adjustment	Sensitivity at free weight, 100g default	Sensitivity at free weight, 100g default
Heating module adjustment	2-point temp. adjustment at freely defin-able temperatures (Default: 100/160°C)	2-point temp. adjustment at 100/160°C
Method management		
Drying programs	Standard, gentle, fast, steps	Standard, fast, gentle
Method memory	300	99
Result handling		
Control chart	Yes	Yes
Drying curves	Yes	Yes
Quality managment		
Pass/Fail statement	Yes	Yes
Level control	LevelControl, with warning function	Level indicator

* More information available
  in HX204 and HS153 datasheets

Test Your Moisture Analyzer in 10 Minutes
with SmartCal™ Reference Substance

SmartCal™

SmartCal offers a fast and efficient way to verify the performance of your Moisture Analyzer. With a simple 10 minute test you can be sure your instruments are working within specification at all times. Testing your Moisture Analyzers with SmartCal fulfills the demands of industry regulations and company audits.

Simple and fast test
The test is as easy to perform as a regular measurement. Simply distribute SmartCal evenly into the sample pan and start. The results are available in 10 minutes.

Verified instrument
The Moisture Analyzer is ready for use if the result lies within the SmartCal control limits.

No issues with auditors
Proper verification and seamless documentation guarantee correct performance and valid moisture results.

▶ **www.mt.com/smartcal**

www.mt.com/moisture

For more information