

Advanced Level



**MS Semi-Microbalances**

Precise results

Efficient handling

Space saving



**Immediate Results – Lasting Value**

Swiss Weighing

**METTLER TOLEDO**

# Weighing Convenience in the Best Swiss Tradition

**Swiss quality is a synonym for precise results and top product quality. For us at METTLER TOLEDO, that also includes functionality and ease-of-use.**

Advanced Level MS semi-microbalances incorporate every one of these aspects. The High Resolution (HRT) weighing cell is made in Switzerland, and guarantees your results are precise and dependable. The clever ErgoDoor draft shield saves time: you can simultaneously open the door with one hand, while using the other to dose your sample. The intuitive user interface with intelligent menu guidance makes operating the balance a breeze.



## Precise Results



The Swiss high-precision HRT weighing cell from METTLER TOLEDO guarantees constant accuracy and precise results over the entire weighing range.

## Efficient Handling



Clever design details bring you efficient weighing: ErgoDoors for fast dosing, QuickLock draft shield for easy cleaning, built-in applications and operation in your own language.

## Space Saving



With an optimum footprint, MS semi-microbalances make best use of your workspace.





### Versatile in Use



Here is the ideal balance for every laboratory weighing task, be it in process or quality control, density determination or formulation.



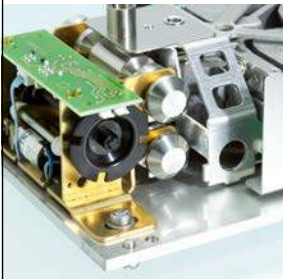
Designed for ease of use

# Designed for You Right Down to the Last Detail

**Time is money – so everything that accelerates your laboratory workflow will bring savings, provided it does not mean compromising on quality. Speed of working is about more than balance stabilization time. In fact, every little detail counts.**

Quickly set the date or change the language? Open the door and place the weighing sample with a single action? Dismantle the draft shield to clean each glass panel? No problem – Advanced Level semi-microbalances help you make more efficient use of your time.

## Precise Results



The HRT weighing cell includes two built-in weights. Together with fully automatic time- and temperature-controlled internal adjustment (FACT), you can be sure of accurate results.

## Efficient Handling with ErgoDoor



Reduce the number of movements needed for every weighing. Open the draft shield ErgoDoor with one hand and simultaneously dose the weighing sample with your other hand.

## Space Saving



Save working space thanks to split draft shield doors that do not project beyond the balance, and sideways mounted connectors at the back of the balance.







**METTLER TOLEDO**



**Quick and Easy Cleaning**

Cleaning has never been this easy: dismantle the QuickLock draft shield in a few short steps, then wash all glass panels and the drip tray in the dishwasher.



**Convenient Leveling**

The adjustable feet and clearly visible level indicator are located at the front of the balance for easy leveling.



**Built-in Functions Save Time**

Operate the balance in your own language; quickly access the pre-programmed applications via SmartKeys; work GLP/GMP compliant with the built-in date and time function.

**Error-free Reading**

Read the large brilliant numbers from the clear High Contrast Display (HCD) without any difficulties, even from a distance or at an awkward angle.

**Robust and Durable**

The robust housing reliably protects the weighing sensor. It is also resistant to most chemicals, including acetone.

# The Complete Picture

## Products, Accessories and Services

**At METTLER TOLEDO, our daily business is focused on ensuring you get accurate weighing results not only through our product innovations and build quality, but also through our worldwide network of over 2,500 experienced service technicians who can support you on-site with our calibration and maintenance services.**

We work continuously to bring you new product developments and accessories to optimize the efficiency of your weighing processes. Printers, auxiliary displays, density kits, anti-theft devices and more – we have a solution for all your needs.

### Service



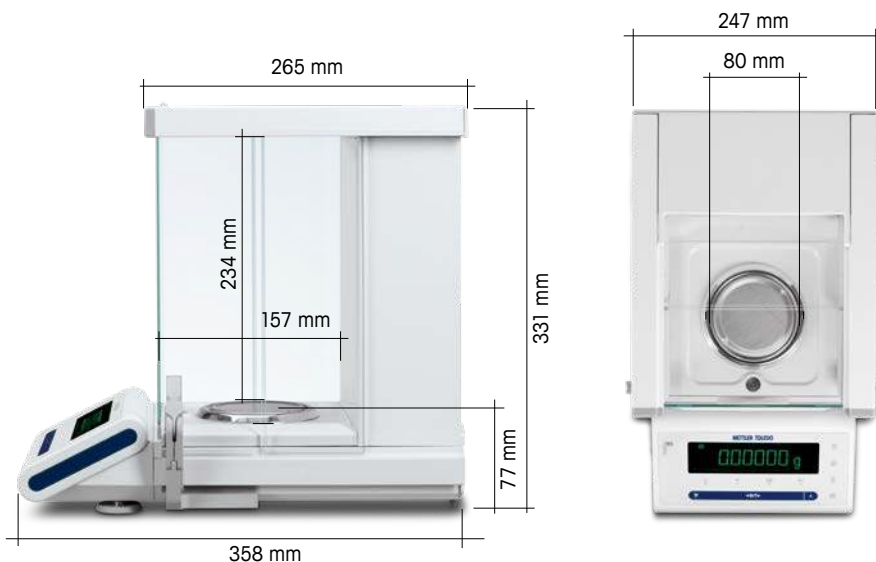
**World's largest service network**  
Working with our weighing equipment gives you access to the METTLER TOLEDO worldwide network of local services and training, providing you with professional support in a timely and efficient manner.














**Installation & Calibration**  
Take advantage of METTLER TOLEDO's modular selection of standard service agreements, guaranteeing optimal performance and ensuring that your weighing equipment continues to deliver precise and reliable results.



**Self-maintenance**  
The built-in Diagnostics application is fully supported by CarePac® weight sets to perform optimum testing of your balance. The relevant weights are selected and supplied with the correct testing methods so you can achieve sustained balance uptime.



Technical data	MS105	MS105DU	MS205DU	MS204
<b>Limit values</b>				
Maximum capacity	120 g	120 g	220 g	220 g
Maximum capacity, fine range	-	42 g	82 g	-
Readability	0.01 mg	0.1 mg	0.1 mg	0.1 mg
Readability, fine range	-	0.01 mg	0.01 mg	-
Repeatability (at nominal load)	0.04 mg	0.08 mg	0.08 mg	0.09 mg
Repeatability (at low load)	0.02 mg (20 g)	-	-	0.07 mg (20 g)
Repeatability, fine range (at nominal load)	-	0.03 mg	0.05 mg	-
Repeatability, fine range (at low load)	-	0.02 mg (20 mg)	0.02 mg (20 mg)	-
Linearity deviation	0.1 mg	0.15 mg	0.2 mg	0.2 mg
<b>Typical values</b>				
Linearity deviation (within 10 g)	0.02 mg	0.02 mg	0.02 mg	-
Minimum sample weight (acc. to USP)	30 mg	30 mg	30 mg	100 mg
Minimum sample weight (U= 1%, k=2)	3 mg	3 mg	3 mg	10 mg
Settling time	8 s	4 s	4 s	2 s
Settling time, fine range	-	8 s	8 s	-

-  **HRT weighing cell**  
With two built-in weights, for constant accuracy over the entire weighing range
-  **FACT**  
Fully automatic time- and temperature-controlled internal adjustment
-  **Diagnostics**  
Easy execution of balance diagnostics e.g. keypad and repeatability tests
-  **ErgoDoor**  
The right door can be opened from the left side and vice versa
-  **SmartTrac**  
Shows how much of the entire weighing range has been used
-  **SmartKeys**  
Programmable keys for shortcut access to preferred applications
-  **QuickLock**  
Fast and convenient dismantling of the draft shield
-  **Connectivity**  
RS232 to connect to PC, printer or bar code reader; USB to connect to PC
-  **Protection**  
Balance settings can be password protected
-  **Protective Cover**  
Encloses the entire balance housing to protect against stains and scratches
-  **OIML**  
Approved versions of all models available

## Accessories



### Fast, smart printers

Archive quality printouts on paper, labels, and continuous labels.  
P-58: sample IDs, barcodes, labeling and built-in applications.  
P-56: simple printouts and for instruments with embedded applications.



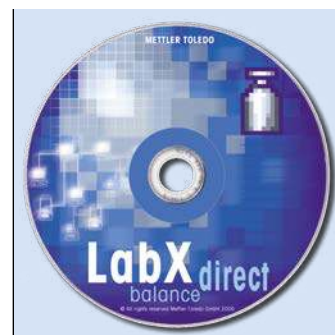
### Density kit

Density determination becomes easy with METTLER TOLEDO's density kit for analytical and precision balances.



### PipetteCheck

Balance and stand-alone pipette check-station combined, for checking pipette accuracy.



### LabX direct balance

PC software for easy data transfer to standard computer programs (e.g. Microsoft Excel).

# World's Largest Service Network

Working with METTLER TOLEDO balances gives you access to a world-wide network of local service. The service technicians help you to keep your balances operating reliably and accurately, visiting you to calibrate, check or repair your balance.

You can be sure that help comes immediately, when you most need it.



## Green MT

- Just 1 Watt in standby mode
- Selection of non-critical materials – PVC and mercury free
- Energy efficient manufacturing and logistics

[www.mt.com/semimicro-analytical](http://www.mt.com/semimicro-analytical)

For more information

### METTLER TOLEDO Group

Laboratory Weighing

Local contact: [www.mt.com/contacts](http://www.mt.com/contacts)

Subject to technical changes

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### GWP®

Good Weighing Practice™

GWP® is the global weighing standard, ensuring consistent accuracy of weighing processes, applicable to all equipment from any manufacturer. It helps to:

- Choose the appropriate balance or scale
- Calibrate and operate your weighing equipment with security
- Comply with quality and compliance standards in laboratory and manufacturing

► [www.mt.com/GWP](http://www.mt.com/GWP)