

# Balances

From  
0.0000001 g  
up to 64 kg





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# Lab Weighing Solutions

## Choose the Balance You Need



**Do you need fast and reliable results when weighing the smallest of samples?**

**Do you want a robust and reliable balance for your daily routine procedures?**

**Or do you have to accurately determine the mass of your weights?**

METTLER TOLEDO provides state-of-the-art solutions for each of your weighing tasks:

Mass Comparators set the standard in mass metrology and ensure traceability to the international prototype.

The Excellence Balance Line offers solutions encompassing the most demanding weighing tasks.

The Classic Balance portfolio presents a choice of smart and robust all-rounders for every budget.

The OEM Weigh Modules give you the chance to build your own individual system with METTLER TOLEDO expertise.

Lab weighing solutions –  
for all your individual tasks.

## Excellence Balances

High performance weighing  
and One Click™ Weighing  
Solutions



Excellence Balances

## Classic Balances

Basic weighing  
with smart operation



Classic Balances

## Mass Comparators

From manual  
to fully automated  
mass determination



Mass Comparators

## OEM Weigh Modules

Weighing components  
for automated applications

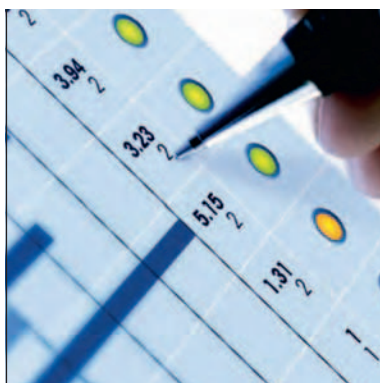


OEM Weigh Modules



# Guaranteed Better Weighing Results At Your Fingertips

**Good Weighing Practice™ (GWP®)** is a global weighing guideline that helps you achieve accurate weighing results while reducing recurring appraisal and failure costs. With GWP® Verification, we will analyze your installed weighing equipment and prove its accuracy on site. A fit/gap analysis results in a color-coded summary report, pinpointing the potential for accuracy improvements and cost savings. Providing a roadmap for accurate results over the lifetime of your weighing equipment, GWP® Verification is all you will need.



## Consistent Accuracy

The GWP® Verification documentation provides all necessary information on testing procedures, frequencies, weights and pass/fail tolerances. This allows you to maintain reliable weighing accuracy over the lifetime of your weighing equipment.



## Cost Savings

Optimized routine testing based on your risk management ensures consistently good quality in critical applications. Additionally, a sound testing scheme saves costs by eliminating unnecessary tests in lower risk processes.



## Audit-Proof Documentation

The GWP® Verification summary report contains the assessment of all weighing equipment in one audit-proof document. Color codes indicate where requirements have not been met and cost savings can be achieved. You will receive clear recommendations on how to eliminate any gaps and improve overall quality.



## Your Benefits

Compliance	<p>The accuracy of your weighing equipment will always be suitable for your quality requirements.</p> <p>Optimized routine testing and calibration schedules result in sustainable cost savings.</p> <p>Audit-proof and up-to-date documentation complements your quality management system.</p>
Expertise	<p>A comprehensive summary report provides an overview of the status of all weighing equipment.</p>

## Additional GWP® Solutions

### GWP® Excellence

This unique balance firmware has integrated automatic safety functions to ensure your XP and XS balance is always tested correctly and on time.



### GWP® LabX

This PC software allows you to manage your performance verification centrally. You will achieve results with unmatched efficiency and security to ensure a regulatory compliant lab.



For more information:

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

# Excellence Balances

## Best Choice for Safe Weighing

The Excellence XP Balance Line delivers the highest possible weighing performance – even under the most challenging laboratory conditions. The balances incorporate unique security features with the new GWP® Excellence firmware.

### Outstanding Performance

The short stabilization time and excellent repeatability of the XP Line ensure maximum measuring performance.



### Protected Operation

SmartSens sensors enable contact-free operation for weighing toxic substances, e.g. opening the draft shield or taring.

### Built-in Safety

The colored digits of the MinWeigh function indicate when the weight of your sample has reached the minimum value required by your procedure, and as defined by USP. This ensures measurement safety and compliance with process tolerances.

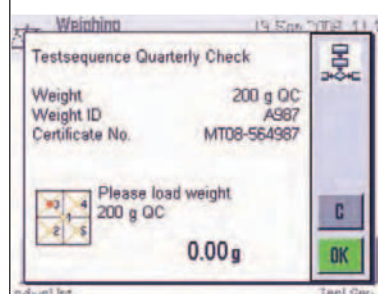
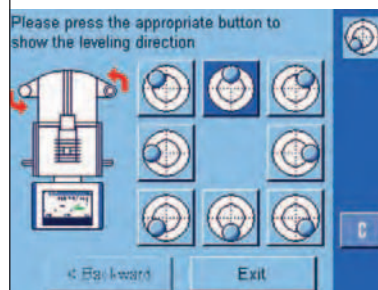


### Automatic Adjustment

Using internal weights the automatic proFACT Advanced adjustment unit guarantees correct balance adjustment for daily routine operation, reproducible results and optimized test intervals.

### Level Control

The LevelControl function gives you a clear warning when the balance is not level. It guides you through the leveling process.



### Pass Audits Easily

Ensure high regulatory compliance and minimize your weighing risk with built-in safety features, e.g. user management and embedded GWP® Excellence routine testing procedures. Always weigh with confidence!





XP56

## One Click™ Weighing Solutions

LabX software provides step-by-step user guidance that ensures high process security and speeds up the lab workflow.





# Analytical Balances

## Security Knows No Alternative

**METTLER TOLEDO has developed special functions and a comprehensive range of accessories for the XP Analytical and Microbalances Line to increase user safety and guarantee unprecedented sample and data security.**

### Secure Dosing

ErgoClips facilitate the accurate positioning and fastening of tare vessels to enable quick and secure direct dosing of samples.



### Ergonomic Operation

Innovations such as the adjustable MinWeighDoor make XP Analytical and Microbalances the top choice for weighing small amounts of precious substances.

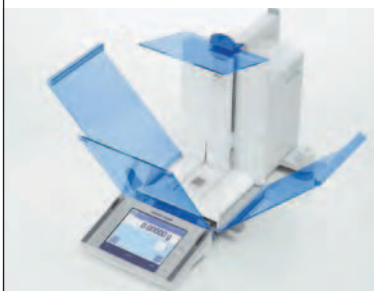
### Fast Results

The SmartGrid weighing pan minimizes the effects of air turbulence, so that stabilization time is reduced.



### Easy Cleaning

Minimize the risk of contamination: Each panel of the draft shield can be removed easily and is cleaned in a flash.



XP56 with inner draft shield and MinWeighDoor micro



XP56



XP205

## XP Analytical Balances



### SmartGrid and ErgoClips

For fastest results and secure sample handling



### SmartSens and ErgoSens

For hands-free operation



### LevelControl

Warns when the balance is not leveled



**8 users** Individual settings, user management with password protection



**GWP® Excellence** Integrated automatic safety functions for external routine testings



**proFACT** Fully automatic time- and temperature-controlled internal adjustment



**Reliability** Built of solid metal, resistant to chemicals. For smooth daily operation.



**Connectivity** RS232 built-in, slot for second interface (7 options, incl. wireless Bluetooth)



**LabX PC Software** For electronic data management according to 21 CFR Part 11

### Additional Features:

- GWP® Excellence routine testing procedures
- Different weighing units available, plus define your own custom units
- Built-in applications: piece counting, formulation, percent weighing, statistics, differential weighing and factor calculation
- Operation of the balance can be easily configured to accommodate harsh weighing conditions
- Overload Protection
- Removable terminal
- Operates in different languages: EN, DE, FR, IT, ES, RU, JP, CN, CS, PL, HU
- Easy connection to PC software



Please order the Excellence Plus XP brochure

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

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

Model	Maximum capacity	Readability	Repeatability	Linearity	Settling time	Minimum weight <sup>1)</sup>	Weighing pan (mm)	Part No.
XP105 DeltaRange	← 31 g → 120 g	0.01/0.1 mg	0.015/0.05 mg	0.15 mg	2.5 s/1.5 s	21 mg	78x73	11106036
XP205	220 g	0.01 mg	0.015 mg	0.1 mg	2.5 s	21 mg	78x73	11106024
XP205 DeltaRange	← 81 g → 220 g	0.01/0.1 mg	0.015/0.05 mg	0.15 mg	2.5 s/1.5 s	21 mg	78x73	11106027
XP204	220 g	0.1 mg	0.05 mg	0.2 mg	1.5 s	120 mg	78x73	11106030
XP504	520 g	0.1 mg	0.1 mg	0.4 mg	1.5 s	120 mg	78x73	11106042
XP504 DeltaRange	← 101 g → 520 g	0.1/1 mg	0.1/0.5 mg	0.5 mg	1.5 s/1.5 s	120 mg	78x73	11106045
XP26	22 g	1 µg	1.5 µg	6 µg	3.5 s	2.1 mg	40x40	11106048
XP26 DeltaRange	← 5.1 g → 22 g	2 µg/10 µg	2 µg/5 µg	10 µg	2.5 s/3.5 s	3.6 mg	40x40	11106051
XP56	52 g	1 µg	1.5 µg	20 µg	3.5 s	2.1 mg	40x40	11106054
XP56 DeltaRange	← 11 g → 52 g	2 µg/10 µg	2 µg/6 µg	30 µg	2.5 s/3.5 s	3.6 mg	40x40	11106057

<sup>1)</sup> Typical minimum weight according to US Pharmacopeia (USP)

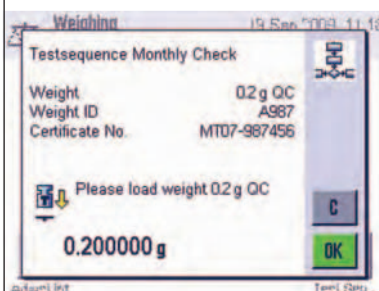
All models also available in verified version.

# Micro Balances for Smallest Sample Sizes

**With up to 61 million resolution points, XP Micro and Ultra Microbalances are ideal for accurately measuring the smallest of samples.**

## Benefit from GWP® Excellence

Only GWP® Excellence balance firmware provides you with integrated routine testing procedures for guaranteed compliance with your SOP.

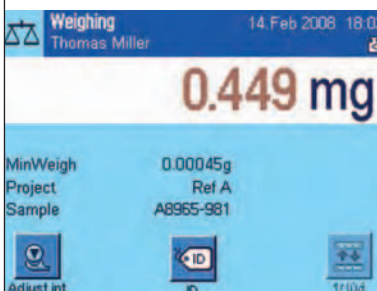


## Optical Guide

Tolerances can be set individually. The optical guide helps to achieve the smallest possible sample weight.

## Minimum Weight

The MinWeigh function helps to comply with the minimum sample weight required by USP. Auditors view the MinWeigh certificate as a QM document.



## Easy Operation with LabX

The user can access predefined weighing applications from the display and work through them step by step using the intuitive user prompts.



## Automated Processes

The Automated-S Microbalance is easily integrated into automated processes, resulting in higher productivity.



XP2U Automated-S Microbalance for weighing of unique sample shapes.



XP2U

## XP – Micro and Ultra Microbalances



**SmartSens and ErgoSens**  
For hands-free operation



**QM Toolbox** For maximum security  
in regulated environments



**8 users** Individual settings, user  
management with password protection



**GWP® Excellence** Integrated automatic  
safety functions for external routine testing



**Reliability** Built of solid metal, resistant to  
chemicals. For smooth daily operation.



**Connectivity** RS232 built-in, slot for second  
interface (7 options, incl. wireless Bluetooth)



**Applications** Comprehensive range  
of built-in applications



**LabX PC Software** For electronic data  
management according to 21 CFR Part 11



**proFACT** Fully automatic time- and  
temperature-controlled internal adjustment  
and linearization – configurable

### Additional Features:

- GWP® Excellence routine testing procedures
- Different weighing units available, plus define your own custom units
- Built-in applications: piece counting, formulation, percent weighing, statistics, differential weighing and factor calculation
- Operation of the balance can be easily configured to accommodate harsh weighing conditions
- Overload Protection
- Removable terminal
- Operates in different languages: EN, DE, FR, IT, ES, RU, JP, CN, CS, PL, HU
- Easy connection to PC software



Please order the  
Microbalance brochure

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

### Microbalances

Model	Maximum capacity	Readability	Repeatability (test load)	Linearity	Settling time (typical)	Minimum Weight <sup>1)</sup>	Weighing pan Ø (mm)	Part No.
XP2U	2.1 g	0.1 µg	0.25 µg (2 g)	1.5 µg	10 s	0.45 mg	16	11122430
XP6U	6.1 g	0.1 µg	0.4 µg (5 g)	4 µg	15 s	0.45 mg	16	11122400
XP6	6.1 g	1 µg	0.8 µg (5 g)	4 µg	7 s	1.2 mg	27	11122415

### Automated Microbalances

XP2U Automated-S	2.1 g	0.1 µg	0.25 µg (2 g)	1 µg	10 s	0.45 mg	61x22	30014393
XP6 Automated-S	6.1 g	1 µg	0.8 µg (5 g)	4 µg	7 s	1.2 mg	61x22	30014395

<sup>1)</sup> Typical minimum weight according to US Pharmacopeia (USP)

All models also available in verified version.

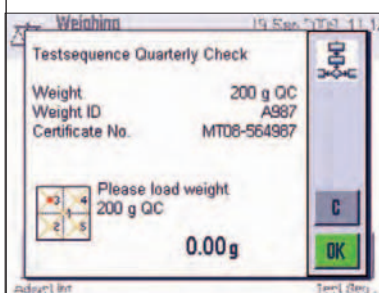
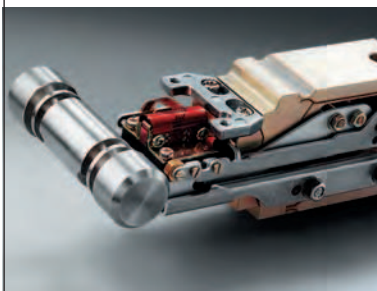


# High Security for Harsh Environments

**With Excellence Plus XP Precision Balances, METTLER TOLEDO again sets the standard for weighing, both in the laboratory and in industrial environments. The product portfolio with S- and L-Platforms ranges from 0.1 mg up to 64 kg capacity.**

## Proven Durability

A separate processor brings the MonoBloc<sup>HighSpeed</sup> weighing cell up to maximum speed. Thanks to the Overload Protection even heavy loads cannot damage the XP.

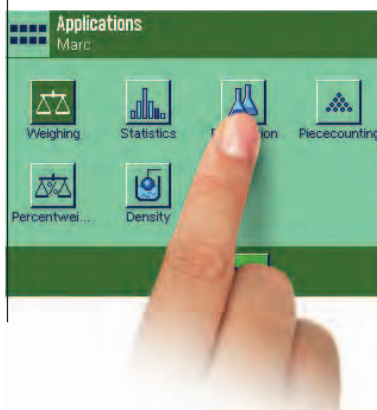


## Switch on GWP®

Only GWP® Excellence balance firmware provides you with integrated routine testing procedures for guaranteed compliance with your SOP.

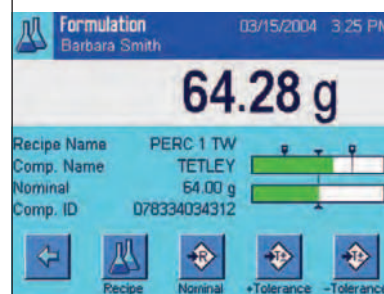
## Easy Operation

The TFT touchscreen brings color into the world of weighing – for optimum user-friendliness and security.



## Weighing-in Aid

The optical guide helps to achieve the desired weight.



## XP Precision Balances (Small Platform)



**ProFACT** Fully automatic temperature- and/or time-controlled internal adjustment



**SmartSens and ErgoSens**  
For hands-free operation



**QM Toolbox**  
Maximum security in regulated environments



**MinWeigh**  
Warns if the minimum weight requirement is violated



**LevelControl**  
Warns when the balance is not leveled



**8 users**  
Individual settings, password-protected



**GWP® Excellence** Integrated automatic safety functions for external routine testing



**IP54 In-Use**  
Protection against dust and splashes of water



**Connectivity** RS232 built-in, slot for second interface (7 options, incl. wireless Bluetooth and Ethernet)



**LabX PC software** For electronic data management according to 21 CFR Part 11



**FreeWeigh software** Connectivity to FreeWeigh.Net for optimal process control



XP404S

XP10002S

### Additional features:

- Different weighing units available, plus define your own custom units
- Built-in applications: piece counting, formulation, percent and dynamic weighing, statistics, differential weighing and density determination, factor calculation
- Operation of the balance can be easily configured to accommodate harsh weighing conditions
- Stainless steel weighing pans, with resistance to chemicals
- Removable terminal
- Operates in different languages: EN, DE, FR, IT, ES, RU, JP, CN, CS, PL, HU
- Easy connection to PC software

► [www.mt.com/xp-precision](http://www.mt.com/xp-precision)

Model	Maximum capacity	Readability	Repeatability	Linearity	Minimum Weight <sup>1)</sup>	Weighing pan	Part No.
XP204S	210 g	0.1 mg	0.2 mg	0.2 mg	360 mg	Ø 90 mm	11130052
XP404S	410 g	0.1 mg	0.1 mg	0.2 mg	80 mg	Ø 90 mm	11130076
XP404S DeltaRange	← 80 g → 410 g	0.1 mg/1 mg	0.1 mg/0.6 mg	0.6 mg	180 mg	Ø 90 mm	11130082
XP203S	210 g	1 mg	0.9 mg	2 mg	1.5 g	127x127 mm	11130022
XP603S	610 g	1 mg	0.9 mg	2 mg	1.5 g	127x127 mm	11130020
XP603S DeltaRange	← 120 g → 610 g	1 mg/10 mg	1 mg/6 mg	6 mg	2.4 g	127x127 mm	11130040
XP1203S	1210 g	1 mg	0.8 mg	2 mg	1.2 g	127x127 mm	11130000
XP2003S DeltaRange	← 500 g → 2100 g	1 mg/10 mg	1 mg/6 mg	6 mg	1.8 g	127x127 mm	11130088
XP5003S DeltaRange	← 1000 g → 5100 g	1 mg/10 mg	1 mg/6 mg	6 mg	1.8 g	127x127 mm	11130094
XP802S	810 g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130061
XP1202S	1210 g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130070
XP2002S	2100 g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130060
XP4002S	4100 g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130102
XP4002S DeltaRange	← 800 g → 4100 g	10 mg/0.1 g	8 mg/60 mg	60 mg	12 g	170x205 mm	11130039
XP6002S	6100 g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130100
XP6002S DeltaRange	← 1200 g → 6100 g	10 mg/0.1 g	8 mg/60 mg	60 mg	15 g	170x205 mm	11130101
XP8002S	8100 g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130201
XP10002S	10100 g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130200
XP10002S DeltaRange	← 2000 g → 10100 g	10 mg/0.1 g	8 mg/60 mg	50 mg	15 g	170x205 mm	11130206
XP12002S DeltaRange	← 2000 g → 12100 g	10 mg/0.1 g	10 mg/60 mg	60 mg	18 g	170x205 mm	30006911
XP2001S	2100 g	0.1 g	80 mg	60 mg	120 g	190x223 mm	11130152
XP4001S	4100 g	0.1 g	80 mg	60 mg	120 g	190x223 mm	11130141
XP6001S	6100 g	0.1 g	80 mg	60 mg	120 g	190x223 mm	11130140
XP8001S	8100 g	0.1 g	80 mg	100 mg	120 g	190x223 mm	11130221
XP10001S	10100 g	0.1 g	80 mg	100 mg	120 g	190x223 mm	11130220

All models also available in verified version. For L-Platforms see page 43. <sup>1)</sup> Typical minimum weight according to US Pharmacopeia (USP)

# Tailored Weighing Solutions

**The Excellence Plus XP Precision Balances have been designed for a broad spectrum of applications in a variety of industries. With comprehensive accessories you can create a solution to meet your exact requirements.**

## High-Capacity Weighing

XP Balances with L-Platforms are the first choice for high-capacity weighing up to 64 kg. Their robust design and leading-edge weighing technology guarantee fast results in all environments.



## Ergonomic Workplace

Mount the terminal on a stand to save space and protect it from dirt.



## Easy Data Transfer

With the XP's interface options you can choose to print out your results straight away or transfer the data to your PC. Ensure complete traceability of your results.



## System Integration

The weighing platform of the XP Precision Balance is also available separately. Compact, robust and with outstanding weighing performance, it is ideal for system integration.



## Choice of Second Interface

Bluetooth, Ethernet or USB: the XP guarantees to connect. Choose one of 7 possible auxiliary interfaces.



XP64001L

### XP High-Capacity Precision Balances (Large Platform)



**SmartSens and ErgoSens**  
For hands-free operation



**QM Toolbox**  
Maximum security in regulated environments



**MinWeigh**  
Warns if the minimum weight requirement is violated



**LevelControl**  
Warns when the balance is not leveled



**8 users**  
Individual settings, password-protected



**GWP® Excellence** Integrated automatic safety functions for external routine testing



**IP54 In-Use**  
Protection against dust and splashes of water



**Connectivity** RS232 built-in, slot for second interface (7 options, incl. wireless Bluetooth and Ethernet)



**LabX PC software** For electronic data management according to 21 CFR Part 11



**FreeWeigh software** Connectivity to FreeWeigh.Net for optimal process control

#### Additional features:

- Built-in QM Tools (MinWeigh, LevelControl, user management with password protection, GWP® Excellence, ChangeHistory etc.)
- Sensors allowing hands-free operation
- Alphanumeric sample identification, 4 IDs per sample
- Display various weighing units (built-in) and define custom units
- Piece counting, formulation, percent and dynamic weighing, statistics, density determination, factor calculation and differential weighing
- Be adapted to the environment and weighing process
- Large, chemical-resistant stainless steel weighing pans
- Overload protection
- Removable terminal
- Operates in different languages:  
EN, DE, FR, IT, ES, RU, JP, CN, CS, PL, HU
- Easy connection to LabX PC software

► [www.mt.com/xp-precision](http://www.mt.com/xp-precision)

L Platform	Maximum capacity	Readability	Repeatability	Linearity	Minimum Weight <sup>1)</sup>	Weighing pan	Part No.
XP8001L	8100 g	0.1 g	0.08 g	0.2 g	120 g	280x360 mm	11130630
XP16001L	16100 g	0.1 g	0.08 g	0.2 g	120 g	280x360 mm	11130633
XP32001L	32100 g	0.1 g	0.08 g	0.3 g	120 g	280x360 mm	11130636
XP32001L DeltaRange	6400 g	0.1 g/1 g	0.1 g/0.6 g	0.3 g	120 g	280x360 mm	11130639
XP64001L	64100 g	0.1 g	0.1 g	0.5 g	120 g	280x360 mm	11130642
XP16000L	16100 g	1 g	0.6 g	0.6 g	1200 g	280x360 mm	11130645
XP32000L	32100 g	1 g	0.6 g	0.6 g	1200 g	280x360 mm	11130648
XP64000L	64100 g	1 g	0.6 g	0.6 g	1200 g	280x360 mm	11130651

<sup>1)</sup> Typical minimum weight according to US Pharmacopeia (USP)

All models also available in verified version.



# One Click™ Weighing Solutions

## Efficient & Secure Workflows

**Connect your Excellence XP/XS Balance to LabX software and benefit from full user guidance on the balance, your results printed in a personalized report, and all your calculations and documentation performed automatically.**

Operators simply perform the weighing task and LabX takes care of all the rest. Our LabX Services offer a comprehensive range of support, including installation of LabX and development of your application.

### Bring the Power of LabX to your Weighing Applications:

#### Design Tools

Built-in design tools allow the complete development or customization of individual application methods and reports.



#### Work at the Balance

Users start each application with a One Click™ shortcut and carry out their tasks at the balance as usual. LabX provides full SOP guidance directly on the balance touchscreen.



#### Calculations and Documentation

LabX automatically performs all calculations and saves all results. Manual transcription of results is no longer required.



#### Instrument Management

All tests and adjustments are fully managed by LabX so you can be sure your balance is ready for each weighing task.



#### Regulations and Compliance

Built-in security features, e.g. user management options and the Audit Trail function, assist you to comply with the relevant regulations (including 21 CFR Part 11).



#### Integration

LabX can be fully integrated with your existing information systems to allow error-free data transfer with LIMS, HPLC, Excel® etc.

## Example Applications

Whether you customize an application from our library or create a new one from scratch, the examples below show the type of benefits you can bring to any of your weighing applications. Our LabX specialists can develop your methods for you as part of our Service offering.

### One Click™ Standard Preparation



- One-step dosing
- Fully labeled samples
- Automatic calculations

#### Typical Product Bundle

XP205 Analytical Balance  
LabX Software (Express Edition)  
ErgoClip Flask  
Label Printer  
Ethernet Option

### One Click™ Loss on Drying



- Simplified sample handling
- Intelligent task management
- Color Pass/Fail identification

#### Typical Product Bundle

XP204 Analytical Balance  
LabX Software (Express Edition)  
ErgoClip Round Bottom Flask  
Label Printer  
Barcode Reader  
Ethernet Option

### One Click™ Sieve Analysis



- Auto sieve weighing
- No manual transcription
- Graphical reports

#### Typical Product Bundle

XP6002LDR Precision Balance  
LabX Software (Express Edition)  
Ethernet Option  
ErgoClip Sieve

## LabX software

LabX Express: for standalone systems with up to 3 balances

LabX Server: each Server Edition connects up to 30 balances  
in a Client/Server network

Please see LabX on pages 18–21 for further details and licensing options.



## LabX Services

The carefully designed LabX Services range allows you to choose just the individual services you need to support you and your LabX system.

- App Development
- Installation
- Training
- Validation
- Integration
- Support & Maintenance

Our Annual Checkup is highly recommended to keep your system up-to-date and functioning correctly. For more details please see the LabX Services for Excellence Balances brochure.



Please order the LabX Services for Excellence Balances brochure

# State-of-the-Art Solutions

## Particulate Matter Weighing

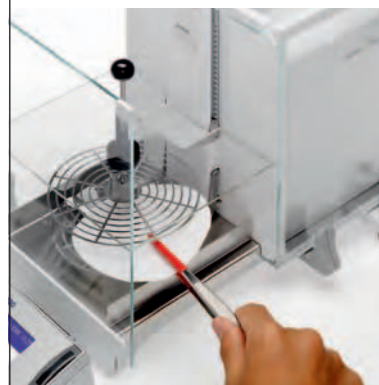
**METTLER TOLEDO has developed a comprehensive range of accessories for demanding applications. From AntiStatic and Filter Weighing Kit to intelligent Filter Robots – the XP Line offers innovative solutions guaranteeing accuracy of up to 0.1 µg and compliance with all US and EU norms.**



### Environmental Monitoring

The Filter Kit fits onto all METTLER TOLEDO Excellence XP Analytical Balances and is ideal for efficient routine work with filters up to 110 mm in diameter.

### Easy to Assemble



Model	Filter sizes	Balance system	Resolution	Typical repeatability	Part No.
Filter Kit for XP Analytical Balances	< Ø 110 mm	XP205 (DR)	0.01 mg	0.03 mg	11140000
ErgoClip Filter Holder	< Ø 110–150 mm	XP205 (DR) XP205 (DU)	0.01 mg	0.03 mg	11140185

Within seconds you can upgrade your XP Analytical Balance into the perfect filter weighing solution.



### Emissions Determination

With its cutting-edge performance, the XP Ultra Microbalance equipped with a Filter Kit determines particulate matter on filters weighing as little as 0.1 µg.

### High Precision Filter Weighing



The weighing pan's innovative design enables easy placement of the filter in the ideal position. Choose between two sizes of pans: Ø 47 mm and Ø 70 mm.

Model	Filter sizes	Balance system	Resolution	Typical repeatability	Part No.
Filter Kit for XP Balances	Ø 30–70 mm	XP2U/XP6	0.1 µg/1 µg	0.2 µg/0.6 µg	11122136
Filter Kit for XP/XS Balances	< Ø 110 mm	XP2U/XP6	0.1 µg/1 µg	0.2 µg/0.6 µg	00211227

### Robotic Filter Weighing

F-Line Filter Robots guarantee cutting-edge weighing performance of 47 and 70 mm filters with readability down to 0.1 µg. The Filter Robots make emission and immission laboratories reach norms with minimal effort and maximum accuracy and throughput.

F-A747 and F-A770



#### Outstanding Accuracy

The specially designed detached weighing frame eliminates robot vibrations on the balance. This allows outstanding measurement performance with a resolution of up to 61 million points.



#### Smart Filter Handling

The innovative filter holder allows acclimatization, storage, transport and weighing all in one, without interruption or removal of the filter.



#### High Throughput

The automated process speeds up the weighing time to 60 filters in just 60 minutes while keeping the acclimatization time constant.



#### Safe Data Management

The FilterControl software facilitates filter coding with its bar-code scanner and enables data integration with your existing software system.



Please order the Filter Weighing brochures.

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

Model	Filter sizes	Balance system	Resolution	Typical repeatability	Part No.
F-A770	47, 70 mm	XP2U	0.1 µg	0.15 µg	11116990
F-A770	47, 70 mm	XP2U	0.1 µg	0.15 µg	30014370



# Density Determination

## Truly Efficient

**Excellence XP and XS Balances equipped with an optional Density Kit allow precise density determination of solid, liquid, porous and pasty substances.**



### Automatic Calculations



The built-in density determination application guides you step-by-step through the procedure. It collects the density values, calculates the results and allows statistical evaluation of the measurement series.

► [www.mt.com/density-determination](http://www.mt.com/density-determination)

### Accessories for density determination with balances

Balance	Description	Part No.
XS/XP Precision	Density Kit for 1 mg and 0.1 mg Precision Balance models	11132680
XS/XP Analytical	Density Kit for XS/XP Analytical Balances	11106706
MS	Density Kit MS universal	30004077
MS-S	Density Kit MS-S universal	11142143
ML	Density Kit ML universal	11142144
Sinker	For density determination of liquids in conjunction with Density Kit 210485, 225600, 33360, 11106706, 11132680, 30004077, 11142143 or 11142144	00210260
	Calibrated (sinker + certificate)	00210672
	Recalibrated (new certificate)	00210674
	Calibrated thermometer	11132685

# Keep Filling under Control

The Excellence Balance Statistical Quality Control (SQC) software offers a comprehensive standalone system for net weight and filling control. Overfilling reduces profit and underfilling is illegal. The SQC system ensures easy monitoring and control of your filling processes.



## SQC-XP Balance Application

With the **SQC-XP application**, **XP Balances** can be transformed into a system for net weight control and fill quantity control.

- Large colour display with touchscreen operation
- Flexible and powerful for up to 100 products
- Weighing range from 1 microgram up to 64 kg
- Supports automatic tablet feeder (LV11) for loading small items onto the balance automatically
- Possibility to connect the wireless printer BT-P42

## SQC14 Printer supports SQC



This specialized printer supports quality control of up to 60 articles. The compact design means it can be used anywhere and printouts are on normal paper. Achieve efficient control of your fill quantities with statistical charts to assist in the optimization of your filling processes.

## LV11 Automatic Feeder



The automatic tablet feeder for balances to facilitate SQC.

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

Software	Description	Part No.
SQC-XP	SQC firmware for XP Precision Balances	21901277

Balance	Description	Part No.
AX/XS/XP	SQC printer for control of up to 16 articles	00236210
AB-S/ PG-S/PB-S MS/ML	SQC printer for control of up to 60 articles	00236211

Balance	Description	Part No.
XP Balances and balances connected to SQC14	LV11 feeder for automatically loading small items onto the balance	21900608
AX	Metal door with opening for LV11	11100088
XS/XP Analytical	Draftshield door with opening for LV11	11106715
XP Precision	Draftshield door with opening for LV11	11132711

# Pipette Calibration Solutions

## Rapid and Ergonomic

Ensuring that your pipettes perform within tolerances in your daily work is the economical way to reduce risks: Monitor the accuracy of your pipettes with regular pipette performance testing and pipette calibration to ensure data integrity.



### MCP-System

Boost your efficiency in multi-channel pipette calibration (volume > 10 µl). Check 12 channels at a time in one single step with the MCP System.

Model	Part No.
MCP1-S (including Evaporation Trap multi- and single-channel, transport case and accessories)	11138007
Technical data MCP workstation	
Number of channels	Up to 12
Evaporation Trap	Built-in
Readability	0.01 mg
Maximum capacity	101 g
Standard measurement uncertainty	0.02 mg
Dimension (L x W x H)	510x177x165 mm

### Flexible



Exchange the 12-channel transport carriage with the supplied glass Evaporation Trap and calibrate your single-channel pipettes in a trice.

### Portable



The MCP1-S system, delivered with a transport case, is ideal for on-site calibration.



## XP26PC

### Calibrate your micropipette at high speed with the XP26PC Microbalance

Based on the Excellence Plus Microbalance Line, the XP26PC is a dedicated solution for pipette calibration. With a readability of 1 µg, the XP26PC fulfills the calibration requirements of ISO 8655 for micropipettes (volume ≥ 1 µl) and is 3 times faster than a conventional balance.

Model	Part No.
XP26PC	11106021
<b>Technical data XP26PC</b>	
Evaporation Trap	Built-in
Readability	0.001 mg
Maximum capacity	22 g
Standard measurement uncertainty	0.0015 mg
Dimension (L x W x H)	487 x 263 x 296 mm

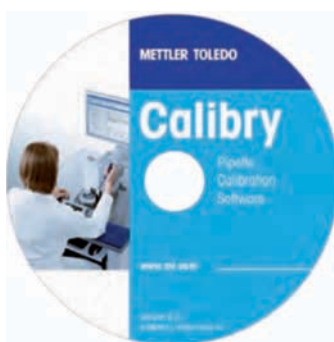


## Evaporation Trap

### The perfect combination – the corresponding Evaporation Trap for each balance

In a professional testing approach Evaporation Traps are indispensable as they keep errors caused by evaporation to a minimum. For pipette performance testing simply mount the Evaporation Trap on your conventional balance and convert it into a pipette testing set-up.

Evaporation Traps	Part No.
Evaporation Trap for XP/XS/XA Analytical Balances	11140043
Large Evaporation Trap for XP/XS/XA Analytical Balances	11138440
Evaporation Trap for XP56/XP26 Microbalances	11140041
Large Evaporation Trap for MCP	11138008
Evaporation Trap for WXT Balances	11138010
Large Evaporation Trap for WXT Balances	11138009
Evaporation Trap for NewClassic MS Semi-Micro	30014460



## Calibry Pipette Calibration Software

### Intuitive and powerful – for efficient data management

Calibry software guarantees full compliance with ISO 8655 and traceability according to FDA 21 CFR Part 11. It guides the user step by step through the calibration process and is capable of reading and writing information to RFID enabled Rainin pipettes.

Calibry Versions	Part No.
Calibry Light	11138423
Calibry Single Workstation	11138419
Calibry Network	11138420
RFID Reader*	17011964
RFID Power User License*	30007309
Validation Handbook*	11780959

\*optional

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



# Analytical Balance Upgrade Kit

## Automate Solids and Liquids Dispensing

Weighing out powders and preparing solutions is a time consuming and error prone task. METTLER TOLEDO's XP Analytical Balances can now be upgraded to an automatic weighing system that is also able to prepare solutions with precise concentrations. The automation option makes this process faster and far more stable while protecting the user from toxic substances.



### Increased Accuracy

Repetitively weighing in powder within tolerances is a time consuming and error prone task. This process can now be automated on an XP Analytical Balance.



### Avoid spillage

Only the necessary amount of powder is dispensed directly into the target vial to eliminate spillage. This ensures efficient substance use while protecting the user.



### No volumetric glassware

Liquids are dispensed automatically and gravimetrically to increase accuracy and speed. No need for volumetric flasks.

## QLB Liquid Dosing

Automatically dispense liquids gravimetrically with the QLB liquid module. There is no need for a volumetric flask any more. Solutions in small quantities can easily and precisely be prepared.



## Q2 and QLB Powder and Liquid Dosing

Upgrade your balance with a Q2 powder dosing module and dose 1 mg to 5 g of powder rapidly and safely directly into your target vial. Combine it with the QLB liquid dosing module to prepare a solution with precise concentration.



Part number	Name	Description
30005906	Q2 Dosing Unit	Powder Dosing Unit
30008317	QL2 Dosing Unit	Pump module and all necessary cables for connection to a QB5
30008318	QLL1000	1000ml pressure tight bottle (DIN GL45 thread) with liquid dosing head
11141832	NetCom-Kit	Those 2 elements must be ordered in order to make the service of the upgraded balance possible
11132515	Ethernet Option	
11141040	EQPac Quantos	Mandatory
11141829	Ionizing Kit	Optional
11141845	Cable Box	Optional

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

► [www.mt.com/Q2](http://www.mt.com/Q2)

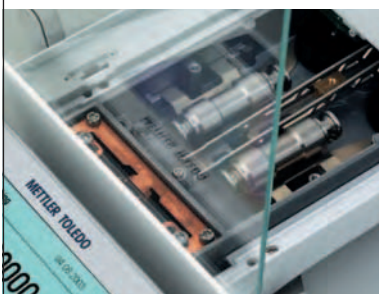
# Increase Productivity with Efficient Weighing

**Achieve unmatched throughput with the XS Balance Line. The fast weight determination and ease of use maximize productivity.**

## Excellent Precision

Ensure fast and efficient weight determination in all your routine processes with unique weighing technologies.

The MonoBloc<sup>HighSpeed</sup> weighing cell provides outstanding measurement precision.



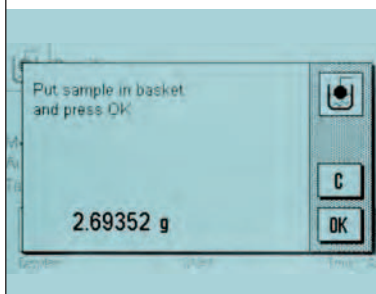
## Automatic Internal Adjustment

The built in FACT Advanced functionality automatically adjusts the balance when there is a change in the ambient temperature.

## Intuitive Touchscreen

Operation is made easy by means of a touchscreen display and clearly structured menus.

A simple touch takes you where you want to go.



## Guided Operation

Step-by-step instructions on the balance display guide you through the built-in weighing applications and testing procedures. Balance operation is simple and error-free.

## Getting Connected

The XS Balances offer an RS232 port as standard. Choose from seven possible options for the second interface e.g. Bluetooth, Ethernet, USB etc.



## Easy Cleaning

The chemical and acid-resistant draft shield can be completely dismantled. All parts of the draft shield and weighing pan are dishwasher-safe.



## Flexible Weighing Solutions

An extensive range of platform sizes, interface combinations and accessories offer solutions for almost every application. Auxiliary devices are easily connected. LabX software provides maximum flexibility.



Please order the  
Excellence XS Analytical  
Balances brochure



Please order the  
Excellence XS Precision  
Balances brochure

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



# Clever Innovations For Ergonomic Weighing

**Featuring the innovative SmartGrid weighing pan, XS Micro and Analytical Balances set new standards regarding speed and ergonomics.**

## Weighing Efficiency with SmartGrid

This unique grid weighing pan minimizes the effects of air turbulence in the weighing chamber. SmartGrid significantly reduces stabilization times.



## Direct Dosing with ErgoClips

These innovative accessories hold your weighing vessel securely in the exact position you want. Sample handling is easier, quicker and safer.



## Ergonomic Handling

Operate here, open and close there: you can slide the door lever on the left – and the draft shield opens on the right. Or vice versa. So you always have one hand free for weighing.



## Weighing Smallest Samples

Minweigh Door allows dosing through an adjustable opening of the draft shield. Perfect in combination with ErgoClip flask, for shorter stabilization times and smallest minimum sample weights.

## Highest Reliability

XS Microbalances improve the reliability of your weighing processes. The XS3DU's superb weighing cell with its 1 µg readability in an 800 mg range guarantees accurate measurements even with the smallest samples.



XS3DU Microbalance



XS205 Analytical Balance

## XS Micro and Analytical Balances



### Smartscreen display

Makes operation easy and fast



**SmartGrid and ErgoClips\*** For fastest results and secure sample handling



**Left/right operation\*** The right door can be opened from the left side and vice versa



**GWP® Excellence** Integrated automatic safety functions for external routine testing



**FACT**  
Fully automatic internal adjustment



**SmartTrac** Graphically displays the remaining available capacity



**Connectivity** RS232 built-in, slot for second interface (7 options, incl. wireless Bluetooth)



**LabX PC Software** For electronic data management according to 21 CFR Part 11

\* Only XS Analytical Balances

### Additional Features:

- GWP® Excellence routine testing procedures
- Protect settings with password
- Different weighing units available, plus define your own custom units
- Built-in applications: percent weighing, dynamic weighing, statistics, piece counting, formulation and density determination, factor calculation
- Operation of the balance can be easily configured to accommodate harsh weighing conditions
- Overload Protection
- Removable terminal
- Operates in different languages: EN, DE, FR, IT, ES, RU, JP, CN, CS, PL, HU
- Easy connection to PC software

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

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

## XS Analytical Balances

Model	Maximum capacity	Readability	Repeatability	Linearity	Settling time (typical)	Minimum Weight <sup>1)</sup>	Weighing pan (mm)	Part No.
<b>XS105</b> DualRange	41 g 120 g	0.01/0.1 mg	0.02/0.05 mg	0.2 mg	3 s/1.5 s	30 mg	78x73	11106009
<b>XS205</b> DualRange	81 g 220 g	0.01/0.1 mg	0.02/0.05 mg	0.2 mg	3 s/1.5 s	30 mg	78x73	11106000
<b>XS64</b>	61 g	0.1 mg	0.07 mg	0.2 mg	1.5 s	120 mg	78x73	11106015
<b>XS104</b>	120 g	0.1 mg	0.07 mg	0.2 mg	1.5 s	120 mg	78x73	11106012
<b>XS204</b> DeltaRange	81 g 220 g	0.1/1 mg	0.1/0.5 mg	1 mg	1.5 s/1.5 s	120 mg	78x73	11106006
<b>XS204</b>	220 g	0.1 mg	0.07 mg	0.2 mg	1.5 s	120 mg	78x73	11106003

## XS Microbalance

Model	Maximum capacity	Readability	Repeatability (test load)	Linearity	Settling time (typical)	Minimum Weight <sup>1)</sup>	Weighing pan Ø (mm)	Part No.
<b>XS3DU</b>	0.8 g 3.1 g	1 µg (fine range) / 10 µg	1 µg (0.8 g) / 6 µg (3 g)	10 µg	10 s / 6 s	1.5 mg / 9 mg /	27	11122445

<sup>1)</sup> Typical minimum weight according to US Pharmacopeia (USP)

All models also available in verified version.

# High-Throughput Weighing made Easy

**The XS Precision Balance Line offers flexible solutions with clever accessories. A wide range of options is available to meet your requirements, whatever your application.**

## **Simplify Your Daily Routine**

The alphanumerical touchpad on the balance display or the connection of a commercial keyboard allows quick sample identification.



## **Magnetic Protection**

Avoid magnetic influences with the Magnetic Protection Shield weighing pan. Magnetic samples or a magnetic stirrer in your beaker can no longer affect the weight determination.



## **Wireless Printing**

For full traceability, print your results effortlessly with the Bluetooth wireless Printer BT-P42. Place the printer wherever you want with no cables to worry about.



## **Fast Cleaning**

Rounded edges, flat surfaces and no corners where sample substances can collect. The XS has a soil-resistant design which makes it easy to clean.

## **High-Capacity Weighing**

Large platforms and robust construction enable high-capacity weighing.



XS32001L

## XS Precision Balances



**Smartscreen display** Monochrome Touch-screen with freely configurable user interface



**GWP® Excellence** Integrated automatic safety functions for external routine testing



**FACT** Fully automatic internal adjustment



**MonoBloc<sup>HighSpeed</sup> technology** For peak weighing performance



**Reliability** For smooth daily operation. Built of solid metal, resistant to chemicals.



**IP54 In-Use** Protection against dust and splashes of water



**SmartTrac** Graphically visualizes the remaining available capacity



**LabX PC software** For electronic data management according to 21 CFR Part 11



**Connectivity** RS232 built-in, slot for second interface (7 options, incl. wireless Bluetooth and Ethernet)



XS8001S

## Additional Features:

- MonoBloc<sup>HighSpeed</sup> technology
- GWP® Excellence routine testing procedures
- Protect settings with password
- Different weighing units available, plus define your own custom units
- Built-in applications: percent weighing, dynamic weighing, statistics, piece counting, formulation and density determination, factor calculation
- Operation of the balance can be easily configured to accommodate harsh weighing conditions
- Overload Protection
- Removable terminal
- Operates in different languages: EN, DE, FR, IT, ES, RU, JP, CN, CS, PL, HU
- Easy connection to PC software



XP1003S

► [www.mt.com/xs-precision](http://www.mt.com/xs-precision)

## XS Precision Balances

Model	Maximum capacity	Readability	Repeatability	Linearity	Minimum Weight <sup>1)</sup>	Weighing pan	Part No.
<b>XS203S</b>	210g	1 mg	0.9 mg	2 mg	1.5 g	127x127 mm	11130153
<b>XS403S</b>	410g	1 mg	0.9 mg	2 mg	1.5 g	127x127 mm	11130156
<b>XS603S</b>	610g	1 mg	0.9 mg	2 mg	1.5 g	127x127 mm	11130159
<b>XS603S DeltaRange</b>	120g → 610g	1 mg/10 mg	1 mg/6 mg	6 mg	1.8 g	127x127 mm	11130162
<b>XS1003S</b>	1010g	1 mg	0.8 mg	2 mg	12 g	127x127 mm	11130165
<b>XS802S</b>	810g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130168
<b>XS2002S</b>	2100g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130171
<b>XS4002S</b>	4100g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130174
<b>XS4002S DeltaRange</b>	800g → 4100g	10 mg/0.1 g	8 mg/60 mg	60 mg	12 g	170x205 mm	11130177
<b>XS6002S</b>	6100g	10 mg	8 mg	20 mg	12 g	170x205 mm	11130180
<b>XS6002S DeltaRange</b>	1200g → 6100g	10 mg/0.1 g	8 mg/60 mg	60 mg	12 g	170x205 mm	11130183
<b>XS4001S</b>	4100g	0.1 g	80 mg	60 mg	120 g	190x223 mm	11130186
<b>XS6001S</b>	6100g	0.1 g	80 mg	60 mg	120 g	190x223 mm	11130189
<b>XS8001S</b>	8100g	0.1 g	80 mg	100 mg	120 g	190x223 mm	11130192
<b>XS10001S</b>	10100g	0.1 g	80 mg	100 mg	120 g	190x223 mm	30006900

## XS High-Capacity Precision Balances

<b>XS8001L</b>	8100g	0.1 g	0.08 g	120 g	0.2 g	280x360 mm	11130660
<b>XS16001L</b>	16100g	0.1 g	0.08 g	120 g	0.2 g	280x360 mm	11130663
<b>XS32001L</b>	32100g	0.1 g	0.08 g	120 g	0.3 g	280x360 mm	11130666
<b>XS32001L DeltaRange</b>	6400g → 32100g	0.1 g/1 g	0.1 g/0.6 g	120 g	0.3 g	280x360 mm	11130669
<b>XS16000L</b>	16100g	1 g	0.6 g	1200 g	0.6 g	280x360 mm	11130672
<b>XS32000L</b>	32100g	1 g	0.6 g	1200 g	0.6 g	280x360 mm	11130675

<sup>1)</sup> Typical minimum weight according to US Pharmacopeia (USP)

All models also available in verified version.





# Uncompromised Safety in Hazardous Areas

**Excellence XS Ex2 Balances enable efficient weighing in ATEX Zone 2 environments.**

## Built for Hard Work

The soil-resistant casing has easy to clean surfaces, while the robust construction offers complete overload protection.

## Touchscreen Display

Safe and simple operation thanks to the convenient touchscreen display with graphical user interface.

## ErgoSens

Freely placeable and individually configurable, the ErgoSens enables hands-free operation of the balance.



## XS Precision Balances

Model	Maximum capacity	Readability	Repeatability	Linearity	Weighing pan	Part No.
<b>XS204SX</b>	210 g	0.1 mg	0.2 mg	0.2 mg	Ø 90 mm	11121620
<b>XS603SX</b>	610 g	1 mg	0.9 mg	2 mg	127x127 mm	11121626
<b>XS1003SX</b>	1010 g	1 mg	0.8 mg	2 mg	127x127 mm	11121632
<b>XS5003SX DeltaRange</b>	1000 g → 5100 g	1 mg/10 mg	1 mg/6 mg	6 mg	127x127 mm	11121638
<b>XS4002SX</b>	4100 g	0.01 g	8 mg	20 mg	170x205 mm	11121644
<b>XS6002SX</b>	6100 g	0.01 g	8 mg	20 mg	170x205 mm	11121650
<b>XS4001SX</b>	4100 g	0.1 g	80 mg	60 mg	190x223 mm	11121656
<b>XS32001LX</b>	32100 g	0.1 g	80 mg	300 mg	280x360 mm	11121704
<b>XS64001LX</b>	64100 g	0.1 g	100 mg	500 mg	280x360 mm	11121710
<b>XS32000LX</b>	32100 g	1 g	600 mg	600 mg	280x360 mm	11121716
<b>XS64000LX</b>	64100 g	1 g	600 mg	600 mg	280x360 mm	11121722

All models also available in verified version.

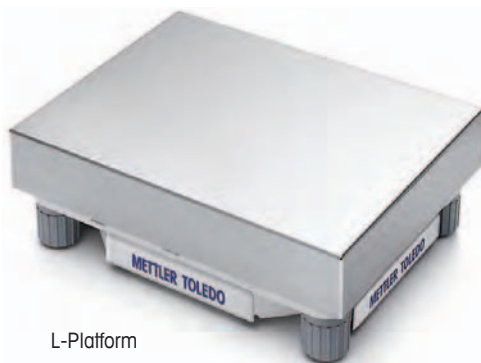
Power supply for Ex Zone 2 (PS X2) has to be ordered separately. Part number: 11132730

## Precise Weighing for Industry Workplaces

Excellence X-Platforms are ideal for precise weighing applications in industrial environments, including Ex Zone 2 environments.



S-Platform



L-Platform

## Connect to an Industrial Terminal

All the application functionality of an IND Terminal is available with an X-Platform.



### S-Platform

Model	Maximum capacity	Readability	Repeatability	Linearity	Minimum Weight (USP)	Part No.
<b>X204S</b>	210 g	0.1 mg	0.2 mg	0.2 mg	360 mg	11130055
<b>X404S</b>	410 g	0.1 mg	0.1 mg	0.2 mg	180 mg	11130079
<b>X404S</b> Delta Range	80 g → 410 g	0.1 mg / 1 mg	0.06 mg	0.6 mg	18 mg	11130085
<b>X203S</b>	210 g	1 mg	0.9 mg	2 mg	1.5 g	11130008
<b>X603S</b>	610 g	1 mg	0.9 mg	2 mg	1.5 g	11130014
<b>X603S</b> Delta Range	120 g → 610 g	1 mg / 10 mg	1 mg	10 mg	2.4 g	11130046
<b>X1203S</b>	1210 g	1 mg	0.8 mg	2 mg	1.2 g	11130062
<b>X2003S</b> Delta Range	500 g → 2100 g	1 mg / 10 mg	1 mg	6 mg	1.8 g	11130091
<b>X5003S</b> Delta Range	1000 g → 5100 g	1 mg / 10 mg	1 mg	6 mg	1.8 g	11130097
<b>X1202S</b>	1210 g	10 mg	8 mg	20 mg	12 g	11130073
<b>X2002S</b>	2100 g	10 mg	8 mg	20 mg	12 g	11130043
<b>X4002S</b>	4100 g	10 mg	8 mg	20 mg	12 g	11130109
<b>X6002S</b>	6100 g	10 mg	8 mg	20 mg	12 g	11130112
<b>X6002S</b> Delta Range	1200 g → 6100 g	10 mg / 0.1 g	8 mg	60 mg	15 g	11130115
<b>X8002S</b>	8100 g	10 mg	8 mg	20 mg	12 g	11130209
<b>X10002S</b>	10100 g	10 mg	8 mg	20 mg	12 g	11130212
<b>X10002S</b> Delta Range	2000 g → 10100 g	10 mg / 0.1 g	8 mg	50 mg	15 g	11130215
<b>X4001S</b>	4100 g	0.1 g	80 mg	60 mg	120 g	11130146
<b>X6001S</b>	6100 g	0.1 g	80 mg	60 mg	120 g	11130149
<b>X8001S</b>	8100 g	0.1 g	80 mg	0.1 g	120 g	11130226
<b>X10001S</b>	10100 g	0.1 g	80 mg	0.1 g	120 g	11130229

### L-Platform

<b>X16001L</b>	16100 g	0.1 g	0.08 g	0.2 g	120 g	11130603
<b>X32001L</b>	32100 g	0.1 g	0.08 g	0.3 g	120 g	11130606
<b>X64001L</b>	64100 g	0.1 g	0.1 g	0.5 g	120 g	11130612
<b>X32000L</b>	32100 g	1 g	0.6 g	0.6 g	1200g	11130618

### S-/L-Platform Ex2

<b>X204SX</b>	210 g	0.1 mg	0.2 mg	0.2 mg	360 mg	11121623
<b>X603SX</b>	610 g	1 mg	0.9 mg	2 mg	1.5 g	11121629
<b>X1003SX</b>	1010 g	1 mg	0.8 mg	2 mg	1.2 g	11121635
<b>X5003SXDR</b>	80 g → 5100 g	1 mg/10 mg	1 mg	6 mg	120 mg	11121641
<b>X4002SX</b>	4100 g	0.01 g	8 mg	20 mg	12 g	11121647
<b>X6002SX</b>	6100 g	0.01 g	8 mg	20 mg	12 g	11121653
<b>X4001SX</b>	4100 g	0.1 g	80 mg	60 mg	120 g	11121659
<b>X32001LX</b>	32100 g	0.1 g	80 mg	300 mg	120 g	11121707
<b>X64001LX</b>	64100 g	0.1 g	100 mg	500 mg	120 g	11121713

All models also available in verified version.

# Excellence in Pure Weighing

**The XA Balance Line offers all the fundamental functionality you need combined with the high performance you desire. These straightforward balances are easy-to-use but still excel in terms of reliability and repeatability.**

## Fast Weighing

The innovative SmartGrid weighing pan on the XA Analytical Balances reduces stabilization times and gives you fast results.



## Easy Cleaning

To minimize risk of cross-contamination the complete weighing chamber can be dismantled in seconds and all parts are dishwasher safe.



## Intuitive Operation

The intuitive user interface facilitates fast and simple operation on the touchscreen terminal. The alphanumeric touchpad offers easy data input.



## Reliable Results

The state-of-the-art MonoBloc weighing cell in all XA Precision Balances guarantees fast and accurate results whatever your working environment.



## Built for Endurance

The rugged design protects against corrosive chemicals and prevents ingress of dust and liquids.



## XA Analytical and Precision Balances



**SmartScreen display** Monochrome Touchscreen with freely configurable user interface



**FACT**  
Fully automatic internal adjustment



**SmartGrid and ErgoClips** For fastest results and secure sample handling (for Analytical Balances)



**Left/right operation** The right door can be open from the left side and vice versa (for Analytical Balances)



**MonoBloc<sup>HighSpeed</sup>**  
For peak weighing performance (for Precision Balances)



**Reliability** For smooth daily operation.  
Built of solid metal, resistant to chemicals



**IP54 In-Use** Protection against dust and splashes of water (for Precision Balances)



**SmartTrac**  
Graphically visualizes the remaining available capacity



**Connectivity** RS232 built-in, slot for second interface (choice between Bluetooth and RS232 interfaces)

### Additional features:

- SmartGrid and ErgoClips (for Analytical Balances)
- MonoBloc HighSpeed technology (for Precision Balances)
- Different weighing units available, plus define your own units
- Built-in applications: percent weighing, statistics, piece counting
- Operation of the balance can be easily configured to accommodate harsh weighing conditions
- Overload protection
- Removable terminal
- Operates in different languages:  
EN, DE, FR, IT, ES, RU, JP, CN, CS, PL, HU

Model	Maximum capacity	Readability	Repeatability	Linearity	Weighing pan	Part No.
<b>Analytical Balances</b>						
<b>XA105</b> DualRange	41g 120 g	0.1/0.01 mg	0.02/0.05 mg	0.2 mg	78x73 mm	11126800
<b>XA204</b> DeltaRange	81g 220 g	1/0.1 mg	0.1/0.5 mg	0.5 mg	78x73 mm	11126805
<b>XA205</b> DualRange	81g 220 g	0.1/0.01 mg	0.02/0.05 mg	0.2 mg	78x73 mm	30005329
<b>Precision Balances</b>						
<b>XA303S</b>	310 g	0.001 g	0.9 mg	2 mg	127x127 mm	11126810
<b>XA503S</b>	510 g	0.001 g	0.9 mg	2 mg	127x127 mm	11126815
<b>XA1502S</b>	1510 g	0.01 g	8 mg	20 mg	170x205 mm	11126820
<b>XA3002S</b>	3100 g	0.01 g	8 mg	20 mg	170x205 mm	11126825
<b>XA3001S</b>	3100 g	0.1 g	80 mg	60 mg	190x223 mm	11126830
<b>XA5002S</b>	5100 g	0.01 g	8 mg	20 mg	170x205 mm	11126835
<b>High-Capacity Precision Balances</b>						
<b>XA16001L</b>	16100 g	0.1 g	8 mg	20 mg	170x205 mm	11126840
<b>XA32001L</b>	32100 g	0.1 g	8 mg	20 mg	170x205 mm	11126845

Please refer to your sales representative for the local availability.



# Classic Balances

## For Every Weighing Application

**With their wide range of applications, the NewClassic balances are a perfect choice for every weighing situation: in laboratories, light industry production, training facilities, warehouses, and many more. Discover for yourself the unlimited possibilities, using Density Determination, Statistics, Check Weighing, Piece Counting and all the other applications now available in NewClassic balances.**

### **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.



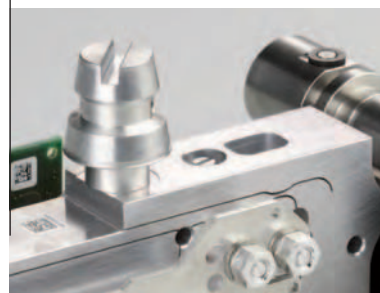
### **Error-free Reading**

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



### **MonoBloc and FACT**

The proven high-performance weighing cell MonoBloc guarantees long service life and extreme ruggedness. FACT automatically adjusts the balance using internal weights at specific times or whenever changes in temperature affect the accuracy of the weighing results.



### **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.



## Take the Direct Route to Your Balance

Visit our virtual showroom at [www.mt.com/newclassic](http://www.mt.com/newclassic) to find out more about the NewClassic range. Take a closer look at the balances, download technical information, and get a feel for the many new functions designed to make the weighing process easier and more enjoyable. You can also use our QuickSearch to identify the right balance for your requirements in just a few easy clicks.



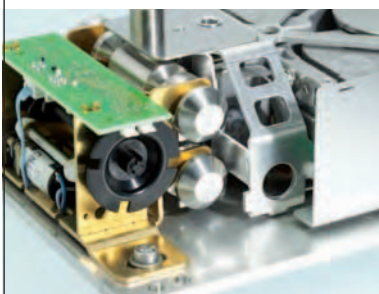
# Designed for You

## Right Down to the Last Detail

**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 – the NewClassic helps to make more efficient use of your time.**

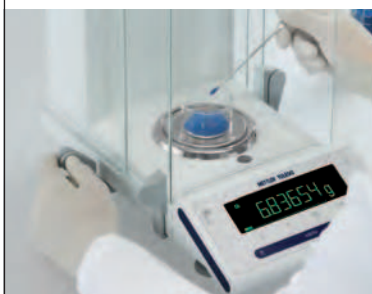
### Precise Results

The METTLER TOLEDO HRT (HiRes Weighing Technology) includes two built-in weights. Together with FACT (Fully Automatic Calibration Technology), this allows the balance to automatically perform adjustment and linearization.



### Efficient Handling

Reduce the number of movements needed for every weighing. Open the draft shield ErgoDoor with one hand and simultaneously place 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.



## NewClassic MS Semi-Microbalances



MS105

HRT

**HRT Weighing Cell** With two built-in weights, for constant accuracy over the entire weighing range

FACT

**FACT** Fully automatic time- and temperature-controlled internal adjustment



**Diagnostics** Easy running of balance diagnostics tests e.g. keypad test, repeatability test



**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



**Smart Key** Programmable keys for shortcut access to preferred applications

Quick Lock

**QuickLock** Fast and convenient dismantling of the draft shield

USB RS232

**Connectivity** RS232 to connect to PC, printer or bar code reader; USB to connect to PC



**Protection** of main balance configurations against manipulation



**ErgoSens** For touch-free operation of the balance



**Protective Cover** Protects the balance from stains and scratches



**OIML**  
Approved versions of all models available

### Additional Features:

- Applications: Piece Counting, Percent Weighing, Formulation, Statistics, Totalling, Free Factor, Recall, Density, Pipette Check
- 3 programmable SmartKeys in the keypad offer direct access to preferred applications
- The built-in date and time function enables GLP/GMP compliant print outs of weighing results, ensuring full control and traceability of research
- Quick and error-free data transfer: RS232 port for direct connection to PC, printer or bar code reader, USB port for connection to PC via standard USB cable
- Easy communication in your language (English, German, French, Italian, Spanish, Polish, Czech, and Hungarian, etc.)



For more information  
please order our brochure  
NewClassic MS  
Semi-Microbalances

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

Model	Maximum capacity	Readability	Repeatability	Linearity*	Min. Weight (USP)	Weighing pan (mm)	Part No.
MS105	120 g	0.01 mg	0.04 mg	0.1 mg (0.02 mg)	45 mg	Ø 80	11142056
MS105DU	42 g 120 g	0.01 mg / 0.1 mg	0.03 mg / 0.08 mg	0.15 mg (0.02 mg)	45 mg	Ø 80	11142062
MS205DU	82 g 220 g	0.01 mg / 0.1 mg	0.05 mg / 0.08 mg	0.2 mg (0.02 mg)	45 mg	Ø 80	11142068
MS204	220 g	0.1 mg	0.09 mg	0.2 mg	150 mg	Ø 80	11142074

\*Typical value within 10 g



# The Undefeated Workhorse

## For Simple, Precise and Reliable Weighing

**Ideal for simple routine tasks or complicated weighing procedures: NewClassic balances convince with strong performance and increased productivity thanks to a fast settling time and consistently reliable results.**

### **Durable and Robust**

The metal housing protects the weighing sensor from environmental influences and impacts. For guaranteed consistency and precision year after year – even with intensive use in harsh environments.



### **Once Level, Always Level**

Fixable rear support LevelLock feet offer extra stabilizing safety, so the balance cannot tilt over under eccentric loads.



### **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.



## NewClassic Balances MS-S



MS4002S



MS204S

Metal

**Metal Housing** High-grade chemical-resistant die-cast aluminum housing

Mono Bloc

**MonoBloc** Proven weighing technology for fast and accurate results

Quick Lock

**QuickLock** Fast and convenient dismantling of the draft shield

FACT

**FACT** Fully automatic time- and temperature-controlled internal adjustment.

USB RS232

**Connectivity** RS232 to connect to PC, printer or bar code reader, USB to connect to PC



**Overload Protection** Protects the weighing cell against excess weight overload



**SmartTrac** Shows how much of the entire weighing range has been used



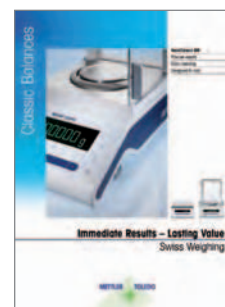
**Smart Key** Programmable keys for shortcut access to preferred applications



**OIML** Approved versions of all models available

## Additional Features:

- Applications: Piece Counting, Percent Weighing, Check Weighing, Dynamic Weighing, Formulation, Statistics, Totalling, Free Factor, Recall, Density
- 3 programmable SmartKeys in the keypad offer direct access to preferred applications
- The built-in date and time function enables GLP/GMP compliant print outs of weighing results, ensuring full control and traceability of research
- Quick and error-free data transfer: RS232 port for direct connection to PC, printer or bar code reader, USB port for connection to PC via standard USB cable
- Easy communication in your language (English, German, French, Italian, Spanish, Polish, Czech, and Hungarian, etc.)



For more information please order our brochure NewClassic MS

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

Model	Maximum capacity	Readability	Repeatability	Linearity	Minimum Weight (USP)	Weighing pan (mm)	Part No.
MS104S	120 g	0.1 mg	0.1 mg	0.2 mg	0.24 g	Ø 90	11124474
MS204S	220 g	0.1 mg	0.1 mg	0.2 mg	0.24 g	Ø 90	11124477
MS304S	320 g	0.1 mg	0.1 mg	0.2 mg	0.24 g	Ø 90	11124480
MS303S	320 g	0.001 g	0.001 g	0.002 g	2.1 g	127 x 127	11124489
MS303SE	320 g	0.001 g	0.001 g	0.002 g	2.1 g	127 x 127	11124611
MS403S	420 g	0.001 g	0.001 g	0.002 g	2.1 g	127 x 127	11124492
MS603S	620 g	0.001 g	0.001 g	0.002 g	2.1 g	127 x 127	11124498
MS1003S	1020 g	0.001 g	0.001 g	0.002 g	2.1 g	127 x 127	11124504
MS1602S	1620 g	0.01 g	0.01 g	0.02 g	21 g	170 x 200	11124516
MS1602SE	1620 g	0.01 g	0.01 g	0.02 g	21 g	170 x 200	11124629
MS3002S	3200 g	0.01 g	0.01 g	0.02 g	21 g	170 x 200	11124522
MS3002SE	3200 g	0.01 g	0.01 g	0.02 g	21 g	170 x 200	11124635
MS4002S	4200 g	0.01 g	0.01 g	0.02 g	21 g	170 x 200	11124528
MS4002SDR	820 g → 4200 g	0.01 g / 0.1 g	0.01 g / 0.06 g	0.02 g / 0.2 g	21 g	170 x 200	11124531
MS6002S	6200 g	0.01 g	0.01 g	0.02 g	21 g	170 x 200	11124537
MS6002SDR	1220 g → 6200 g	0.01 g / 0.1 g	0.01 g / 0.06 g	0.02 g / 0.2 g	21 g	170 x 200	11124540
MS6001S	6200 g	0.1 g	0.1 g	0.2 g	210 g	190 x 226	11124561
MS8001S	8200 g	0.1 g	0.1 g	0.2 g	210 g	190 x 226	11124564
MS8001SE	8200 g	0.1 g	0.1 g	0.2 g	210 g	190 x 226	11124662

Models with E: Adjustment with an external weight

# The Unbreakable Balance

## For Heavy Duty

**Harsh working environments demand hard working balances. NewClassic high capacity balances offer a winning combination of strong performance and extreme robustness, thanks to the chemical-resistant aluminum housing and Ingress Protection IP65 or IP54-in-use (depending on the model).**

### Durable and Robust

The metal housing protects the weighing sensor from environmental influences and impacts. For guaranteed consistency and precision year after year – even with intensive use in harsh environments.



### Built-in Rechargeable Battery

The built-in battery offers independence from power supply – ideal for the taking of an inventory in a warehouse, or wherever power supply is hard to find (MS-KLE and MS-KLIPE only).

### MonoBloc and FACT

The proven high-performance weighing cell MonoBloc guarantees long service life and extreme ruggedness. FACT automatically adjusts the balance using internal weights at specific times or whenever changes in temperature affect the accuracy of the weighing results (except MS-KLE and MS-KLIPE).



### IP65 Protection

The balance fulfils the Ingress Protection IP65 meaning: it is dust tight for complete protection against any solid matter; and can withstand jets of water projected by a nozzle from any direction (MS-KLIPE only).



The large weighing platform, battery operation and the application Piece Counting make the MS balances perfect for the taking of an inventory.

## NewClassic Balances MS-L



MS32001L

Metal

**Metal Housing** High-grade chemical-resistant die-cast aluminum housing

MonoBloc

**MonoBloc** Proven weighing technology for fast and accurate results (only MS-L)

FACT

**FACT** Fully automatic time- and temperature-controlled internal adjustment (only MS-L)

USB RS232

**Connectivity** RS232 to connect to PC, printer or bar code reader, USB to connect to PC (MS-KLIPE only RS232)

XXL

**Large Weighing Pan** For comfortable weighing of bulky items

Overload Protection

**Overload Protection** Protects the weighing cell against excess weight overload

SmartTrac

**SmartTrac** Shows how much of the entire weighing range has been used

F1

**Smart Key** Programmable keys for shortcut access to preferred applications

OIML

**OIML** Approved versions of all models available

## Additional Features:

- Applications: Piece Counting, Percent Weighing, Check Weighing, Dynamic Weighing, Formulation, Statistics, Totalling, Free Factor, Recall, Density
- 3 programmable SmartKeys in the keypad offer direct access to preferred applications
- The built-in date and time function enables GLP/GMP compliant print outs of weighing results, ensuring full control and traceability of research
- Quick and error-free data transfer: RS232 port for direct connection to PC, printer or bar code reader, USB port for connection to PC via standard USB cable (MS-KLIPE only RS232)
- Easy communication in your language (English, German, French, Italian, Spanish, Polish, Czech, and Hungarian, etc.)



For more information please order our brochure NewClassic MS

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

## Models with MonoBloc weighing cell

Model	Maximum capacity	Readability	Repeatability	Linearity	Minimum Weight (USP)	Weighing pan (mm)	Part No.
MS12001L	12200 g	0.1 g	0.1 g	0.2 g	210 g	351 x 245	11124573
MS16001L	16200 g	0.1 g	0.1 g	0.2 g	210 g	351 x 245	11124576
MS16001LE	16200 g	0.1 g	0.1 g	0.2 g	210 g	351 x 245	11124671
MS32001L	32200 g	0.1 g	0.1 g	0.3 g	210 g	351 x 245	11124588
MS32001LE	32200 g	0.1 g	0.1 g	0.3 g	210 g	351 x 245	11124683
MS32000L	32200 g	1 g	0.5 g	1 g	1.5 kg	351 x 245	11124701
MS32000LE	32200 g	1 g	0.5 g	1 g	1.5 kg	351 x 245	11124704

Models with E: Adjustment with an external weight

## Models with strain gauge weighing cell

Model	Maximum capacity	Readability	Repeatability	Linearity	Weighing pan (mm)	Part No.
MS15KLE	15 kg	2 g	1 g	2 g	351 x 245	11124713
MS15KLIPE	15 kg	2 g	1 g	2 g	351 x 245	11124734
MS24KLIPE	24 kg	2 g	2 g	2 g	351 x 245	11124740
MS30KLE	30 kg	2 g	2 g	2 g	351 x 245	11124722

Models with E: Adjustment with an external weight

Readability in approved version for MS-KLE and MS-KLIPE may vary. For more information, please consult [www.mt.com/newclassic](http://www.mt.com/newclassic).



# A Compact Balance

## With Multiple Possibilities

**NewClassic ML balances offer you precise results, comfortable operation and portability in a compact design. A footprint of only 290 mm x 184 mm is enough to fit in METTLER TOLEDO quality and good weighing performance at a price within your means.**

### MonoBloc and Adjustment

Adjust your balance with just one keystroke with the internal adjustment weight. Enjoy guaranteed precise and reliable results, and a long service life thanks to the proven high-performance MonoBloc weighing cell.



### Battery Operated

NewClassic ML is the first to offer a full range of portable balances. The built-in battery slot for AA batteries offers independence from power supply – ideal for work in field or whenever power supply is hard to find.



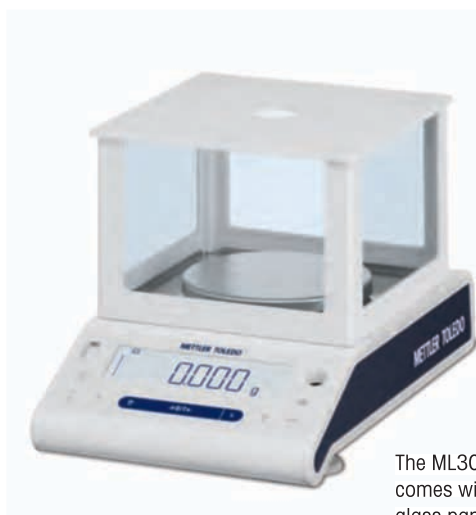
### Brilliant Backlit Display

Read the numbers and symbols easily and accurately on the brilliant backlit display, even under extreme lighting conditions.



### Direct Connection

Connect your balance to a PC and transfer your weighing results to open programs such as Microsoft Excel™. The transfer starts automatically, no additional software is required.



The ML303E – 0.001 g precision balance comes with a clever draft shield: the glass panels are removable for easy cleaning; and the complete draft shield can be folded to save space.

## NewClassic Balances ML



ML4001



ML204



**MonoBloc** Proven weighing technology for fast and accurate results



**Battery Operation** Full independence from power supply for 8 hours



**Overload Protection** Protects the weighing cell against excess weight overload



**Adjustment** at a keystroke with an internal weight (ML only)



**Connectivity** RS232 interface for connection to PC or printer. No additional software needed



**Protective Cover** Encloses the entire housing protecting the balances from stains and scratches



**Diagnostics** Easy running of balance diagnostics tests e.g. keypad test, repeatability test



**OIML** Approved versions of all models available

**Additional Features:**

- Applications: Piece Counting, Percent Weighing, Check Weighing, Dynamic Weighing, Formulation, Statistics, Totalling, Free Factor, Recall, Density
- Programmable SmartKey in the keypad offers direct access to preferred application
- Trace your data with the built-in date and time function



For more information please order our brochure NewClassic ML

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

Model	Maximum capacity	Readability	Repeatability	Linearity	Weighing pan (mm)	Part No.
ML54	52 g	0.1 mg	0.1 mg	0.2 mg	Ø 90	11124770
ML104	120 g	0.1 mg	0.1 mg	0.2 mg	Ø 90	11124776
ML204	220 g	0.1 mg	0.1 mg	0.2 mg	Ø 90	11124782
ML203	220 g	0.001 g	0.001 g	0.002 g	Ø 120	11124809
ML203E	220 g	0.001 g	0.001 g	0.002 g	Ø 120	11124815
ML303	320 g	0.001 g	0.001 g	0.002 g	Ø 120	11124818
ML303E	320 g	0.001 g	0.001 g	0.002 g	Ø 120	11124824
ML503	520 g	0.001 g	0.001 g	0.002 g	Ø 120	11124836
ML802	820 g	0.01 g	0.01 g	0.02 g	170 x 190	11124860
ML802E*	820 g	0.01 g	0.01 g	0.02 g	Ø 160	11124863
ML1502E*	1520 g	0.01 g	0.01 g	0.02 g	Ø 160	11124875
ML1602	1620 g	0.01 g	0.01 g	0.02 g	170 x 190	11124872
ML3002	3200 g	0.01 g	0.01 g	0.02 g	170 x 190	11124884
ML3002E	3200 g	0.01 g	0.01 g	0.02 g	170 x 190	11124887
ML4002	4200 g	0.01 g	0.01 g	0.02 g	170 x 190	11124890
ML4002E	4200 g	0.01 g	0.01 g	0.02 g	170 x 190	11124893
ML6002	6200 g	0.01 g	0.01 g	0.02 g	170 x 190	11124896
ML2001	2200 g	0.1 g	0.1 g	0.2 g	170 x 190	11124902
ML4001	4200 g	0.1 g	0.1 g	0.2 g	170 x 190	11124914
ML6001	6200 g	0.1 g	0.1 g	0.2 g	170 x 190	11124926
ML6001E*	6200 g	0.1 g	0.1 g	0.2 g	Ø 160	11124929

Models with E: Adjustment with an external weight

\* With Strain Gauge weighing cell

# Entry Level Weighing

## Reduced to Essentials

**Classic Light PL-S and PL-L balances offer everything you need to obtain accurate results – without unnecessary features and extras.**

### Classic Light PL-S

Two optional interfaces (RS232 and PS2) for connecting a printer and a second display; as well as 5 built-in applications make the PL-S your perfect choice if you need a bit more than just weighing, but you are on a tight budget.



#### Battery Operation

The built-in battery slot for AA batteries offers independence from power supply – for 20 hours.



#### Recall Weight and Free Factor

Recall the most recent stable value at the press of a key, or multiply your results with Free Factor (PL-S models only).



#### Low Price

Reliable results and METTLER TOLEDO quality for smallest budgets.

## Classic Light PL-L

The PL-L balance is the best entry balance: Handy and compact in design.



### Classic Light Balances PL-S/PL-L



**Adjustment** at a keystroke with an external weight



**Battery Operation**  
Full independence from power supply for 20 hours



**Display increment**  
Faster weighing with reduced readability



**Below Weighing**  
Hook for weighing below the balance



**Units** Weighing results in different units: kg, g, mg, lb, oz, ozt, GN, dwt, mo, m, tl (according to country regulations)



**Applications** Piece Counting, Percent Weighing, Dynamic Weighing\*, Check Weighing\*, Free Factor\*, Recall (\*PL-S models only)



**Transport Case**  
Handy for field experiments: fits the balance, AC adapter, batteries and weights



**RS-P25, RS-P26, RS-P28 Printer**  
The fastest way to generate and archive weighing data results



**Anti-theft device**  
Steel cord with universal lock for securing the balance

Model	Maximum capacity	Readability	Repeatability	Linearity	Weighing pan (mm)	Part No.
PL83-S*	81 g	0.001 g	0.0008 g	0.002 g	Ø 100	12110070
PL202-S**	210 g	0.01 g	0.008 g	0.02 g	Ø 120	12110000
PL602-S*	610 g	0.01 g	0.008 g	0.02 g	Ø 160	12110040
PL802-S*	810 g	0.01 g	0.008 g	0.02 g	Ø 160	12110101
PL1502-S*	1510 g	0.01 g	0.01 g	0.03 g	Ø 160	12120050
PL601-S*	610 g	0.1 g	0.08 g	0.2 g	Ø 160	12110010
PL1501-S**	1510 g	0.1 g	0.08 g	0.2 g	Ø 160	12110020
PL3001-S**	3100 g	0.1 g	0.08 g	0.2 g	Ø 160	12110090
PL6001-S*	6100 g	0.1 g	0.08 g	0.2 g	Ø 160	12110060
PL8001-S*	8100 g	0.1 g	0.08 g	0.2 g	Ø 160	12110111
PL6000-S*	6100 g	1 g	0.08 g	2 g	Ø 160	12110030
PL202-L	210 g	0.01 g	0.01 g	0.02 g	Ø 120	12106440
PL402-L	410 g	0.01 g	0.01 g	0.03 g	Ø 120	12106445
PL602-L*	610 g	0.01 g	0.01 g	0.03 g	Ø 120	12106450
PL601-L*	610 g	0.1 g	0.01 g	0.2 g	Ø 160	12106455
PL1001-L	1100 g	0.1 g	0.01 g	0.2 g	Ø 160	12106460
PL2001-L	2100 g	0.1 g	0.01 g	0.2 g	Ø 160	12106465
PL4001-L	4100 g	0.1 g	0.01 g	0.2 g	Ø 160	12106470
PL6001-L*	6100 g	0.1 g	0.01 g	0.2 g	Ø 160	12106475
PL6000-L*	6100 g	1 g	1 g	2g	Ø 160	12106480

\* Available in approved version

\*\* Available in approved version with 2d readability



# Mass Comparison

## Manual, Automated or Robotic

**The Metrology unit offers a high-end portfolio of Mass Comparators and Services for seamless traceability and advanced weighing applications.**

**The portfolio is divided into three lines of Comparators: Manual, Automated and Robotic**

### Manual Comparators



The combination of a highly ergonomic user interface with the menu-guided mass determination application WeighCom® simplifies and improves the operator's work.

- Highest resolution from 0.1 µg to 5'400 kg
- Self-centering weighing pan (hanging pan or LevelMatic®)
- Menu-guided touch screen operation
- Secure data with Ethernet and Wireless interfaces

### Automated Comparators



Thanks to the Windows®-based control software and 4-place turntable, all measurements are automatically done without operator interference, keeping measurement uncertainty to a minimum.

- Highest accuracy from 0.1 µg to 64 kg
- Fully automated comparison with 4-position weight handler
- Easy and secure data management
- Automated weighing process with PC Controller

### Robotic Comparators



These fully automated solutions are ideal for large scale calibration activities up to E1 OIML accuracy class assuring a safe and efficient workflow.

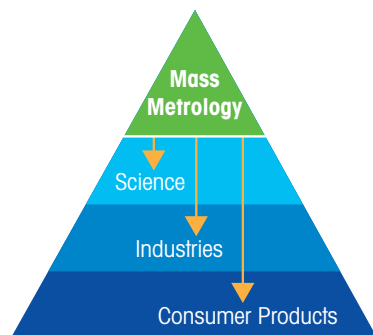
- Peak performance towards nanogram accuracy from 0.1 µg to 20 kg
- Maximum productivity with large weight magazines
- Time saving with fast 3-axis robot
- Windows®-based user friendly control software



## Mass Comparators set the standard

Due to their very best repeatability and resolution, Mass Comparators are the most accurate balances existing today. They determine the exact mass of unknown weights by comparison with a known reference weight. All masses are fully traceable to the International Prototype Kilogram in Paris, and hence Mass Comparators play a key role in the realization of measurement standards.

METTLER TOLEDO Mass Metrology solutions guarantee highest quality and full compliance with country specific norms in all areas of work in science, industry and for consumer products.



Please order the Mass Comparator brochure

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

# The Right Comparators For the Right Segments

**A wide range of XP Mass Comparators are available for Lab and Industrial applications where the highest accuracy and performance is required.**

**Complete solutions are available for the following segments:**

## **Machinery and Electronics**

Production oriented, the XP-S line offers the highest accuracy for the smallest tolerances assuring top quality finished components and parts.



## **Petrochemicals**

XP-L line is largely used in gas cylinder filling. Its robustness and highest resolution help reducing uncertainties to a minimum improving the quality of the gas mixes.



## **Fine Chemicals**

Highest yield for highest capacities, XP-K line helps minimizing the waste of bulk chemical components at the time of filling, drastically sinking production costs.



## **Calibration Laboratories**

For safe and simple weight calibration ComparatorPac™ is the all-in-one solution, assuring efficient workflow and reliable results.

**ComparatorPac™** consisting of:

- 3 XP Mass Comparators
- OIML Calibrated Reference Weights
- MCLink Software



XP2004S



XP32003LS



XP155KS

## Select the Right XP Comparator for your Application

Model	Maximum Load	Readability	Repeatability ABA at Nominal Load	Article Number
XP6U	6.1 g	0.1 µg	0.35 µg	11122400
XP26C	22 g	1 µg	1.5 µg	11106022
XP56C	52 g	1 µg	3 µg	11106023
XP505	520 g	0.01 mg	0.035 mg	11140137
XP2004S *	2300 g	0.1 mg	0.1 mg	11130124
XP2003S	2300 g	1 mg	1 mg	11130120
XP5003S	5100 g	1 mg	0.8 mg	11130121
XP10003S	10100 g	1 mg	1 mg	11130122
XP26003L *	26.1 kg	1 mg	3 mg	11120685
XP32003L	32.1 kg	5 mg	10 mg	11120686
XP64003L	64.1 kg	5 mg	8 mg	11120687
XP64002L	64.1 kg	10 mg	25 mg	11120688
XP64002L-T	64.1 kg	10 mg	30 mg	11120689
XP155KS *	150 kg	0.05 g	0.15 g	11120800
XP604KM	600 kg	0.1 g	0.3 g	11120805
XP1003KM	1100 kg	0.5 g	3 g	11120810
XP2003KL	2500 kg	1 g	10 g	11120815
XP6002KL	5400 kg	10 g	100 g	11120820

\* EX Zone 2 (ATEX) certified model also available



Please order the  
ComparatorPac Weight  
Calibration brochure



# Productivity in Automated Weighing

## Flexibility in the Laboratory

The WX family is designed for high-precision automated as well as manual weighing in instruments, machines and isolators. The compact design means that installation is straightforward and space saving. The comprehensive overload protection and rugged plug-in connections are designed for use in analytical processes and production applications.

### Adaptable weighing pan

It has holes to fasten customized adapters for holding vials or tubes. An adapter may weigh  $\frac{1}{3}$  of the full load without restricting weighing capacity.



### Quick to clean

The weighing pan is easily removed. The exposed opening can be sealed with a cover for rinsing with cleaning fluid.

### Modular Interface concept

With options for additional Ethernet TCP/IP, PS2, Bluetooth converter or RS232. The standard RS232 remains available for service and configuration.



### Rugged Design

The stainless steel housing has a connector with IP67 protection for analytical weighing in harsh environments.

### Pipette calibration set

An optional evaporation trap for pipette calibration including suction pump and thermometer is available for the 0.01 mg models.



### Flexible draft shield

Each of the panels can be removed individually, so that the weighing pan can be accessed from all sides.

## High-Speed and Flexibility in Automation

Minimize cycle times due to high-speed weighing with the WXS weigh modules component version. The WXS modules integrate easily into your automated weighing system.



## Maximum Flexibility with Benchtop Version

The WXT has accessibility from all sides with maximum flexibility for positioning of load cell, electronic unit and terminal.

### WX weigh modules



**FACT** Automatic internal adjustment and linearization.



**Touchscreen** Display with touchscreen technology for safe and simple operation.



**Connectivity** Built-in RS232 interface, optional second interface.



**Applications** Built-in applications



**Adapter** Weighing below the balance.



**Stainless Steel** Housing reliably protects the weighing cell and electronics.

### All models can/offer:

- Use with or without terminal
- Overload protection
- Weighing from below balance
- Multiple parameter configuration possibilities
- Up to 5 m cable length between load cell and electronic unit
- Weighing pan with mounting threads
- WXS: 206 x 127 x 70 mm (L x W x H)
- WXT: 224 x 135 x 80 mm (L x W x H)
- Optional carrying case

WXS – component versions		Max. Capacity	Readability	Repeatability	Linearity	Settling time**	Terminal	Housing	Part No.
WXS26S/15		22 g	0.001 mg	0.003 mg	0.02 mg	5 s	none	stainless steel	11121390
WXSS26*		22 g	0.001 mg	0.003 mg	0.02 mg	5 s	monochrome	stainless steel	11121388
WXS26SDU/15 DualRange	11 g	22 g	0.001/0.01 mg	0.003/0.006 mg	0.03 mg	2 s/5 s	none	stainless steel	11121467
WXSS26DU DualRange*	11 g	22 g	0.001/0.01 mg	0.003/0.006 mg	0.03 mg	2 s/5 s	monochrome	stainless steel	11121465
WXS205S/15		220 g	0.01 mg	0.04 mg	0.15 mg	3 s	none	stainless steel	11121003
WXSS205*		220 g	0.01 mg	0.04 mg	0.15 mg	3 s	monochrome	stainless steel	11121001
WXS205SDU/15 DualRange	110 g	220 g	0.01/0.1 mg	0.03/0.07 mg	0.2 mg	3 s/2 s	none	stainless steel	11121008
WXSS205DU DualRange*	110 g	220 g	0.01/0.1 mg	0.03/0.07 mg	0.2 mg	3 s/2 s	monochrome	stainless steel	11121006
WXS204S/15		220 g	0.1 mg	0.1 mg	0.25 mg	2 s	none	stainless steel	11121023
WXSS204*		220 g	0.1 mg	0.1 mg	0.25 mg	2 s	monochrome	stainless steel	11121021
WXT – benchtop version		Max. Capacity	Readability	Repeatability	Linearity	Settling time**	Terminal	Housing	Part No.
WXTS26*		22 g	0.001 mg	0.003 mg	0.02 mg	5 s	monochrome	white coated	11121384
WXTP26		22 g	0.001 mg	0.003 mg	0.02 mg	5 s	color	white coated	11121385
WXTS26DU DualRange*	11 g	22 g	0.001/0.01 mg	0.003/0.006 mg	0.03 mg	2 s/5 s	monochrome	white coated	11121461
WXTP26DU DualRange	11 g	22 g	0.001/0.01 mg	0.003/0.006 mg	0.03 mg	2 s/5 s	color	white coated	11121462
WXTS205*		220 g	0.01 mg	0.04 mg	0.15 mg	3 s	monochrome	white coated	11121011
WXTP205		220 g	0.01 mg	0.04 mg	0.15 mg	3 s	color	white coated	11121012
WXTS205DU DualRange*	110 g	220 g	0.01/0.1 mg	0.03/0.07 mg	0.2 mg	3 s/2 s	monochrome	white coated	11121016
WXTP205DU DualRange	110 g	220 g	0.01/0.1 mg	0.03/0.07 mg	0.2 mg	3 s/2 s	color	white coated	11121017
WXTS204*		220 g	0.1 mg	0.1 mg	0.25 mg	2 s	monochrome	white coated	11121026
WXTP204		220 g	0.1 mg	0.1 mg	0.25 mg	2 s	color	white coated	11121027

\* Models also available in verified version.

\*\*The settling time is the time between when the object to be weighed is placed on the scale and a stable signal is transmitted – this assumes optimal ambient conditions and optimal parameter settings.

# Weigh Modules for Automated Processes

## Fast, Flexible and High-resolution

The slim WMS weigh modules can easily be integrated into your systems, machines and instruments. Its update rate of 92 filtered and compensated weight values per second enable fast and precise dosing and check weighing in automation.



### IP66 for Cleaning

A double labyrinth design offers a IP54 protection against the penetration of dirt particles during production. The optional wash-down functionality offers IP66 protection for efficient cleaning with fluids.

### WMS weigh modules

**FACT** Automatic internal adjustment.

#### Connectivity

Built in RS232 and RS422.

**Stainless Steel** Housing reliably protects the weighing cell and electronics.

#### Adapter

Weighing below the balance.

Model**	Max. Capacity	Read-ability	Repeat-ability	Linearity	Settling Time*	Connector position	Part No. Long Base Plate**	Part No. Flush Base Plate**
WMS104C	120 g	0.1 mg	0.12 mg	0.25 mg	0.15 – 0.8 s	below	30008490	30008493
WMS204	220 g	0.1 mg	0.2 mg	0.4 mg	0.15 – 0.8 s	below	11149500	11149510
WMS404C	410 g	0.1 mg	0.1 mg	0.4 mg	0.15 – 0.8 s	below	11152100	11152110
WMS403	410 g	1 mg	1 mg	2 mg	0.15 – 0.8 s	below	11149600	11149610
WMS803	820 g	1 mg	1 mg	3 mg	0.15 – 0.8 s	below	11149700	11149710
WMS1203C	1220 g	1 mg	1 mg	3 mg	0.15 – 0.8 s	below	11152200	11152210
WMS4002	4200 g	10 mg	10 mg	30 mg	0.15 – 0.8 s	below	11149800	11149810
WMS6002C	6200 g	10 mg	10 mg	30 mg	0.15 – 0.8 s	below	11152300	11152310
WMS104C-W	120 g	0.1 mg	0.12 mg	0.25 mg	0.15 – 0.8 s	below	30008491	30008494
WMS204-W	220 g	0.1 mg	0.2 mg	0.4 mg	0.15 – 0.8 s	below	11149501	11149511
WMS404C-W	410 g	0.1 mg	0.1 mg	0.4 mg	0.15 – 0.8 s	below	11152101	11152111
WMS403-W	410 g	1 mg	1 mg	2 mg	0.15 – 0.8 s	below	11149601	11149611
WMS803-W	820 g	1 mg	1 mg	3 mg	0.15 – 0.8 s	below	11149701	11149711
WMS1203C-W	1220 g	1 mg	1 mg	3 mg	0.15 – 0.8 s	below	11152201	11152211
WMS4002-W	4200 g	10 mg	10 mg	30 mg	0.15 – 0.8 s	below	11149801	11149811
WMS6002C-W	6200 g	10 mg	10 mg	30 mg	0.15 – 0.8 s	below	11152301	11152311
WMS104C	120 g	0.1 mg	0.12 mg	0.25 mg	0.15 – 0.8 s	rear	30008492	30008495
WMS204	220 g	0.1 mg	0.2 mg	0.4 mg	0.15 – 0.8 s	rear	11149504	11149514
WMS404C	410 g	0.1 mg	0.1 mg	0.4 mg	0.15 – 0.8 s	rear	11152104	11152114
WMS403	410 g	1 mg	1 mg	2 mg	0.15 – 0.8 s	rear	11149604	11149614
WMS803	820 g	1 mg	1 mg	3 mg	0.15 – 0.8 s	rear	11149704	11149714
WMS1203C	1220 g	1 mg	1 mg	3 mg	0.15 – 0.8 s	rear	11152204	11152214
WMS4002	4200 g	10 mg	10 mg	30 mg	0.15 – 0.8 s	rear	11149804	11149814
WMS6002C	6200 g	10 mg	10 mg	30 mg	0.15 – 0.8 s	rear	11152304	11152314

\*The settling time is the time between applying the weighing object and output of a stable signal under optimum environmental conditions and parameter settings.

\*\*C\*: Integrated calibration weight, \*-L\*: Labyrinth, \*-W\*: Wash-Down, \*/10\*=flush base plate below connector, \*/01\*: Long base plate rear connector, \*/11\*: Flush base plate rear connector.



## Small in Size High in Performance

The ultra compact high-precision WMC weigh module is rugged by design. It is very accurate and easy to integrate. As such, it is suitable for semi- and fully-automatic processes in instruments and machines.

Its small size allows compact arrays of weigh modules to be built with minimal pitch for parallel multi line weighing. The weigh module sends 92 filtered weight values via the interface to the control system to ensure fast and precise filling and check weighing.



### WMC weigh modules

RS  
232

**Connectivity** Built-in RS232 interface, optional second interface.

Inox

**Stainless Steel** Housing reliably protects the weighing cell and electronics.

	Max. Capacity	Readability	Repeatability	Linearity	Settling time*	Housing	Part No.
<b>WMC25-SH</b>	21 g	0.01 mg	0.02 mg	0.05 mg	3 s	stainless steel	11149000
<b>WMC15-SH</b>	11 g	0.01 mg	0.02 mg	0.05 mg	2.5 s	stainless steel	11149009
<b>WMC24-SH</b>	21 g	0.1 mg	0.1 mg	0.2 mg	2.5 s	stainless steel	11149002

\*The settling time is the time between applying the weighing object and output of a stable signal under optimum environmental conditions and parameter settings. Depending on the required accuracy settling time down to 200 ms are possible as experience shows.

## Connect to Fieldbus Systems

The automatic parameter detection and the integrated weighing commands make it easy to set up communication between METTLER TOLEDO weigh modules and PLC systems.

Model	Part No.
Profibus DP Module	42102809
ProfiNet IO Module	42102859
DeviceNet Module	42102810
EtherNet/IP Module	42102860

### Fieldbus Modules





# Maximize Uptime and Performance

**METTLER TOLEDO provides a comprehensive portfolio of services to protect the value of your weighing equipment. Preventive maintenance offers you one of the best investments with long-term benefits. While costs associated with equipment downtime can be reduced to a minimum, you can be assured that your operation is always ready. The desired outcome of a weighing process is in any case an accurate and reliable result. This can only be achieved by means of balance calibration, with results documented in a calibration certificate.**



## **Smooth routine operation guaranteed**

Scheduled preventive maintenance and calibration performed by factory trained and authorized service technicians is key to ensuring a smooth routine operation, gaining maximized productivity, and achieving reliable weighing accuracy.



## **Measurement uncertainty for trustworthy results**

As the quantitative indication of the quality of the result, measurement uncertainty as expressed in a calibration certificate is of highest importance. Knowing the uncertainty of calibration results gives confidence in the validity of weighing processes.



## **Minimum weight to stay on the safe side of weighing**

With decreasing sample size, measurement uncertainty of a balance increases. In order to ensure reliable weighing accuracy, it is essential to know the smallest weight which can be reliably weighed on the balance, calculated and documented in a minimum weight certificate.



## Your Benefits

Uptime	Full budget control through periodically scheduled maintenance
	Increased life expectancy of assets
Performance	Avoiding costly disruptions of processes
	Improved process output and less waste
	Increased operators safety
	Traceable weights used by technicians lead to traceable results
	Measurement uncertainty guarantees that process tolerances are met
	Minimum weight determination ensures consistently accurate weighing results

## Preventive Maintenance and Calibration

Proactively planned preventive maintenance is often one of the largest controllable operating costs – money well invested to eliminate premature equipment replacement. Preventive maintenance, including calibration, gives rise to accurate, reliable and consistent results, thus avoiding waste, rework, or even product recalls.

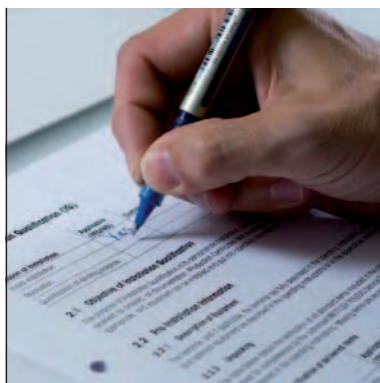
# Profound Know-how

## To Ensure Regulatory Compliance

**Pharmaceutical, biotechnology, chemical, and food & beverage companies must meet an increasing number of equipment qualification requirements. METTLER TOLEDO has designed IPacs and EQ-Pacs to satisfy the qualification demands of regulatory authorities such as the FDA for all weighing instruments in use in R&D and quality control.**

### Your Benefits

Compliance	<p>Eliminated or reduced risk of non-compliance during regulatory audits</p> <p>Improved operation efficiency through quick installation and start up</p> <p>Specified quality of products and reduced liability during routine operation</p> <p>Reduced operator error through improved adherence to SOPs</p>
Expertise	<p>Professional risk management, no warning letters or fines ensures credibility and competitive advantage</p>



#### **IQ – Installation Qualification**

A professionally documented installation by an authorized service technician results in immediate availability of your weighing equipment.



#### **OQ – Operational Qualification**

Get accurate results from the first weighing by ensuring that equipment will function according to its operational specifications in the selected environment.



#### **PQ – Performance Qualification**

User SOP's are set up to make sure that your instrument consistently performs according to a specification appropriate for its routine operation.

### Rely on our effective solutions to comply with requirements of Regulatory Compliance

Regulatory compliance has become a prevalent business concern since corporations are facing ever-tighter regulation of processes and management of weighing equipment. Through its Qualification Pacs, METTLER TOLEDO offers practical and effective ways to integrate governance policies, allowing you to manage compliance on a local or global scale. Our compliance experts have the technology, infrastructure and regulatory knowledge to guide you throughout the equipment life cycle, from initial risk assessment to installation, calibration, setting performance criteria and defining re-qualification activities.

	EQ-Pac	Starter-Pac for Balances	Quality-Pac for Balances	Pharma-Pac for Balances	Moisture-Pac
<b>DQ (Design Qualification)</b>					
Support of design and vendor qualification	●				
<b>IQ (Installation Qualification)</b>					
Perform and document equipment installation	●	●	●	●	●
Conforms with FDA standards	●			●	
<b>OQ (Operational Qualification)</b>					
Initial calibration according to manufacturer specifications	●	●	●	●	●
Equipment familiarization of users	●	●	●	●	●
Calibration documented in certificate	●		●	●	●
<b>PQ (Performance Qualification)</b>					
Support user in setting up SOP	●		●	●	●
Log authorized users	●		●	●	●
Consulting regarding re-qualification	●				
Consulting regarding periodic maintenance	●				
Consulting regarding purchase of weights	●				

● Included

### IPacs and EQ-Pacs for Laboratory Products

Qualification Packages	Product Families	Product Types	Order No. German	English	French	Spanish	Italian
<b>Starter-Pac</b>	Excellence and Classic Balances	All LabTec balances	11795472	11795485	11795520	11795532	11795544
<b>Quality-Pac</b>	Excellence and Classic Balances	All LabTec balances	11795477	11795490	11795523	11795535	11795547
<b>Pharma-Pac</b>	Excellence and Classic Balances	All LabTec balances	11795481	11795494	11795526	11795538	11795550
<b>EQ-Pac</b>	Excellence and Classic Balances	All LabTec balances	11793003	11793004	11793005	11793006	11793007
	Quantos Powder Dosing System	QB1	11793309	11793310	11793311	–	–
<b>Moisture-Pac</b>	Moisture Analyzers	All moisture analyzers	11795514	11795517	11795529	11795541	11795553
<b>MCP-Pac</b>	Multi-Channel Pipette Calibrators	MCP calibrators	–	11793020	–	–	–



# Accessories

Select the Right  
Accessory for Your  
Balance





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# Professional Weighing Tables

## Ergonomic and Efficient

A range of METTLER TOLEDO Weighing Tables are available to provide an ergonomic working area for every type of balance and pipette calibration equipment. Adjustable height and supporting elbow cushions relieve the stress caused by repetitive movements, improving operating convenience and work efficiency. The balance sits on a separate inner table to give faster stabilization times and more reliable results.



### A weighing table for every task



### Working Ergonomically

The height of the outer table can be adjusted to suit the user allowing the neck and back muscles to relax. The elbow cushions protect the user's arms during repetitive activities.

### Low-vibration Table

Each Weighing Table consists of two decoupled tables. The outer working table absorbs impacts, while the balance on the inner table remains undisturbed. These versatile weighing tables are adaptable to every type of balance.

### Technical data

Type	Article No	Width (mm)	Depth (mm)	Height (mm)
Weighing Table XP26PC	11138041	760	803	784
Weighing Table Analytical/Micro	11138042	760	803	784
Weighing Table Micro/Ultra Micro	11138044	760	803	784
Weighing Table MCP2	11138040	760	803	784
Weighing Table MCP5	11138043	1380	1380	760

# The Right Printer For the Right Instrument

## RS-P42 Printer BT-P42 Printer (wireless)



RS-P42 for balance models: XS, XP, XA, UMX, MX, AX, and Moisture Analyzer HB43-S  
BT-P42 for balance model: XP, XS, XA

A rugged real-time printer for documenting all data from the AX/MX/UMX, XP and XS Balances.  
It can be used for printing results from any balance with an RS232C or Bluetooth interface.

The report header and sample identification are selected on the balance's easy-to-operate touchscreen.

### RS-P42

Printing unit	Dot-matrix, 24 characters/line
Speed	1 line/sec
Interface	RS232C
Size	150x90x180 mm
<b>Part No.</b>	00229265

### BT-P42 (same technical data as RS-P42)

Data transmission wireless (Bluetooth)	
Interface	BT, BTS
<b>Part No.</b>	11132540



## LC-P45 printer

For balance models:  
PG-S, SG, AB-S, PB-S, SB, AL, PL, PL-S

Real-time printer with GMP/GLP/ISO compliant printouts. Includes built-in applications such as statistics functions, results totalling, multiplication, division and pipette validation.

### LC-P45

Printing unit	Dot-matrix, 24 characters/line
Speed	1 line/sec
Interface	LocalCAN universal/RS232C
Size	150x90x180 mm
<b>Part No.</b>	00229119

### LC-P43 (same technical data as LC-P45)

For balances with LocalCAN interface	
<b>Part No.</b>	00229114

## Compact Printer RS-P25, USB-P25, RS-P26, RS-P28



RS Printers for all instruments with RS232 port;  
USB-P25 for selected titrators, Karl Fischer titrators, density- and refractometers, and thermal analysis instruments

Avoid transcription errors and create printouts that meet GxP quality standards. Whether on normal or self-adhesive paper, the archived printouts provide full traceability of your weighing and testing data.

The RS-P25 / USB-P25 are ideal for simple printouts. The RS-P26 has integrated time and date functions, and the RS-P28 offers extended statistics and totalization.

	RS-P25	USB-P25	RS-P26	RS-P28
Print application	•	•	•	•
Auto settings detection	•	•	•	•
Print in Chinese, Japanese	•	•	•	•
Built-in real-time clock			•	•
Zero/Tare key			•	•
Statistic application				•
Totalization application				•
Size in mm	120 x 203 x 73			
Speed	2,3 line/seconds			
Compatibility	Check in the manual or on <a href="http://www.mt.com/lab-printers">www.mt.com/lab-printers</a>			
<b>Part No.</b>	11124300	11124301	11124303	11124304

### Accessories for all printers

	Part No.
Paper roll, set of 5	00072456
Paper roll, self-adhesive	11600388
Ribbon cartridge black, set of 2	00065975
Extension cable LC – PR/SR/SG	00229161
RS9-RS9 cable – AX/MX/UMX/XS/XP/PG-S/PB-S/AB-S/MS/ML (standard with LC-P45, RS-P42)	11101051
RS9 F/F cable	51190362
USB cable 1 m	12130716
USB cable 1.8 m	51191926
BTS option single point – Bluetooth interface, needed with BT-P42	11132535
BT option multi point – Bluetooth interface, needed with BT-P42	11132530

For more information about these and other cables turn to «General Accessories».



## Accessories

### Excellence Balances

Description	Part No.	XP/XS Ultra Micro- and Microbalances	XP26/56 Microbalances (SmartGrid)	XP Analytical Balances (SmartGrid)	XS/XA Analytical Balances (SmartGrid)	XP Precision Balances S/L-Platform	XS/XA Precision Balances S/L-Platform
<b>Printers</b>							
BT-P42 Printer with Bluetooth interface (only Latin characters)	11132540	x	x	x	x	x	x
RS-P42 Printer with RS232 interface (only Latin characters)	00229265	x	x	x	x	x	x
RS-P25 Printer with RS232 interface (with Chinese, Russian and Japanese characters)	11124300	x	x	x	x	x	x
LC-P45 Printer with LocalCAN interface. Application printer with additional functions, can print date, time, ID, etc. (only Latin characters)	00229119	x	x	x	x	x	x
CLP-631 Label Printer with serial, parallel and USB interface, for XP/XS Balances with LabX only	11141820	x	x	x	x*	x	x*
<b>AntiStatic Solutions</b>							
Universal AntiStatic Kit, incl. U-Electrode large and Universal Power Supply	11107767	x	x	x	x	x	x
Integrable AntiStatic Kit for XP26/56 Micro- and XP Analytical Balances, incl. 1 Integrable Point Electrode and XP Power Supply	11107761	—	x	x	—	—	—
Integrable Point Electrode (can be used with 11107761)	11107762	—	x	x	—	—	—
U-Electrode large (can be used with 11107763 or 11107766)	11107764	x	x	x	x	x	x
U-Electrode small (can be used with 11107763 or 11107766)	11140161	x	x	x	x	x	x
Point Electrode (can be used with 11107763 or 11107766)	11107765	x	x	x	x	x	x
XP Power Supply, automated switch on/off, synchronized with balance door opening	11107763	x**	x	x	—	—	—
Universal Power Supply	11107766	x	x	x	x	x	x
<b>ErgoClips</b>							
ErgoClip Flask micro	11107879	—	x	—	—	—	—
ErgoClip Basket micro	11107889	—	x	—	—	—	—
MinWeigh Door micro	11107869	—	x	—	n.a	—	n.a
Stand for ErgoClips micro	11140175	—	x	—	—	—	—
ErgoClips Solution Kit micro (ErgoClip Basket micro, ErgoClip Flask micro, ErgoClip Tube without holder, MinWeigh Door micro, stand, various tare containers, micro spatula, tweezers)	11140253	—	x	—	—	—	—
ErgoClip Weighing Boat	11106748	—	—	x	x	—	—
ErgoClip Titration Basket	11106883	—	—	x	x	—	—
ErgoClip Basket small	11106747	—	—	x	x	—	—
ErgoClip Round-Bottom Flask	11106746	—	—	x	x	—	—
ErgoClip Flask	11106764	—	—	x	x	—	—
ErgoClip Flask small	11140180	—	—	x	x	—	—
ErgoClip Tube	11106784	—	—	x	x	—	—
ErgoClip Syringe	30008288	—	—	x	x	—	—
MinWeigh Door	11106749	—	—	x	x	—	—
Stand for ErgoClips	11140170	—	—	x	x	—	—
ErgoClips Solution Kit (ErgoClip Flask, ErgoClip Tube, ErgoClip Flask small, ErgoClip Round Bottom Flask, ErgoClip Basket Small, ErgoClip Weighing Boat, ErgoClip Titration Basket, ErgoClip Quantos and vial adapters, ErgoClip Filter Holder, MinWeigh Door, stand, various tare containers, spatula, tweezers)	11140251	—	—	x	x	—	—
Set of ErgoClips for different weighing containers (ErgoClip Round-Bottom Flask, ErgoClip Weighing Boat and ErgoClip Basket small; 20 weighing boats; 10 single-use aluminum pans)	11106707	—	—	x	x	—	—
ErgoClip Sieve 450 for Precision Balances L-Platform	30005760	—	—	—	—	x (L)	x (L)
<b>Filter Weighing Solutions</b>							
Filter Kit for XP Micro- and Ultra Microbalances, filter Ø max. 70 mm	11122136	x**	—	—	—	—	—
Filter Kit for XP/XS Micro- and Ultra Microbalances, filter Ø max. 110 mm	00211227	x	—	—	—	—	—
Filter Kit for XP Analytical Balances, filter Ø max. 110 mm	11140000	—	—	x	—	—	—
ErgoClip Filter Holder for Analytical Balances, filter Ø max. 150 mm	11140185	—	—	x	x	—	—
Filter Tweezers	11122131	x	x	x	x	—	—
<b>Quantos Accessories for XP Analytical Balances</b>							
Quantos Q2 Powder Dosing Kit	30005906	—	—	x	—	—	—
QL2 Dosing Unit: Pump module with cables for connection to a QB5	30008317	—	—	x	—	—	—

\* = XS only, \*\*=XP only

Description	Part No.	XP/XS Ultra Micro- and Microbalances	XP26/66 Microbalances (SmartGrid)	XP Analytical Balances (SmartGrid)	XS/XA Analytical Balances (SmartGrid)	XP Precision Balances S/L-Platform	XS/XA Precision Balances S/L-Platform
<b>Quantos Accessories for XP Analytical Balances</b>							
QLL1000: 1000 ml pressure tight bottle (DIN GL45 thread) with liquid dosing head	30008318	—	—	x	—	—	—
QLX45	30008618	—	—	x	—	—	—
QSE2 Safety Enclosure (110V)	30015313	x	x	x	x	x	x
QSE2 Safety Enclosure (230V)	30015312	x	x	x	x	x	x
EQPac QSE2 Safety Enclosure	11141253	x	x	x	x	x	x
The following additional items are needed for operation:							
– NetCom-Kit (Ethernet to 4x RS232 Serial)	11141832	x	x	x	x	x	x
– Ethernet Option	11132515	x	x	x	x	x	x
– EQPac Quantos	11141040	—	—	x	—	—	—
<b>Pipette Calibration</b>							
Evaporation Trap for XP56/XP26 Microbalances (10 ml)	11140041	—	x	—	—	—	—
Evaporation Trap for Analytical Balances (6/20 ml)	11140043	—	—	x	x	—	—
Large Evaporation Trap for Analytical Balances (100 ml)	11138440	—	—	x	x	—	—
Evaporation Trap for AX/AT Balances (20 ml)	11140042						
Evaporation Trap for WXT Balances (6/20 ml)	11138010						
Large Evaporation Trap for WXT Balances (100 ml)	11138009						
Reagent Reservoirs RV-L25, set of 5x5 reservoirs	11600616						
Exhaust Pump, 1 channel	11138268						
RFID Reader	17011964						
Calibrated Thermometer (with certificate)	11132685						
Barometer	11600086						
Transport Case for XP26PC	11106997						
Calibration Kit XP26PC	11140044						
Evaporation Trap for MCP (6/20 ml)	11138006						
Large Evaporation Trap for MCP (100 ml)	11138008						
Calibration Set for MCP with E2 Weight 20 g	11138254						
Exhaust Pump, 4-channel	11138252						
Glass tubes (set of 5)	11138253						
<b>Calibry PC-Software</b>							
Calibry Light, full version	11138423	x	x	x	x	x	x
Calibry Single Workstation, full version	11138419	x	x	x	x	x	x
Calibry Network, full version	11138420	x	x	x	x	x	x
Calibry Light, update	30007342	x	x	x	x	x	x
Calibry Single Workstation, update	30007340	x	x	x	x	x	x
Calibry Network, update	30007341	x	x	x	x	x	x
Calibry Validation Handbook	11780959	x	x	x	x	x	x
RFID Power User Licence: Write information via Calibry on the RFID tag	30007309	x	x	x	x	x	x
<b>One Click™ Weighing Solutions</b>							
LabX Balance Express Starter Pack	11153120	x	x	x	x*	x	x*
LabX Balance Server Starter Pack	11153121	x	x	x	x*	x	x*
LabX 1 Balance License	11153220	x	x	x	x*	x	x*
LabX 5 Balances Licenses	11153221	x	x	x	x*	x	x*
LabX Express to Server Sidegrade	11153117	x	x	x	x*	x	x*
LabX Option User Management	11153102	x	x	x	x*	x	x*
LabX Option Product Database	11153103	x	x	x	x*	x	x*
LabX Option Regulation	11153104	x	x	x	x*	x	x*
LabX Option Auto Import/Export	11153105	x	x	x	x*	x	x*
LabX Option Report Designer	11153106	x	x	x	x*	x	x*
LabX Option System Integration	11153107	x	x	x	x*	x	x*
LabX Validation Manual 1	30003640	x	x	x	x*	x	x*
LabX Validation Manual 2 Starter Pack Balance	30003619	x	x	x	x*	x	x*
LabX Validation Manual 2 Chapter Balance	30003641	x	x	x	x*	x	x*

\* = XS only, \*\*=XP only

## Accessories

### Excellence Balances

#### Description

#### Part No.

XP/XS Ultra Micro- and Microbalances

XP26/56 Microbalances (SmartGrid)

XP Analytical Balances (SmartGrid)

XS/XA Analytical Balances (SmartGrid)

XP Precision Balances S/L-Platform

XS/XA Precision Balances S/L-Platform

#### Density Determination

Density Kit for Analytical Balances

11106706

–

–

x

x

–

–

Density Kit for Precision Balances, 0.1 mg and 1 mg models

11132680

–

–

–

x (S)

x (S)

Calibrated Thermometer (with certificate)

11132685

–

x

x

x

x

Sinker 10 ml for density determination of liquids

00210260

–

–

x

x

x

x

Sinker 10 ml for density determination of liquids (with certificate)

00210672

–

–

x

x

x

x

#### Draft Shields

Pro Draft Shield, for 0.1 mg and 1 mg models (standard for XP), H: 248 mm

11131651

–

–

–

–

x (S)

x (S)

Pro Draft Shield glass free (food industry) for 0.1 mg and 1 mg models, H: 248 mm

11131652

–

–

–

–

x (S)

x (S)

MagicCube Draft Shield, 1 mg models, H: 175 mm

11131650

–

–

–

–

x (S)

x (S)

Simple Draft Shield, for 10 mg models and 0.1 mg models (weighing pan 11132660 needed), H: 175 mm

11131653

–

–

–

–

x (S)

x (S)

W5 Draft Shield, for entire Microbalances, WxDxH (inside): 200x447x200 mm

11116043

x

–

–

–

–

–

W12 Draft Shield, for entire Precision Balances, WxDxH (inside): 300x450x450 mm

11134430

–

–

–

–

x (S)

x (S)

W64 Draft Shield, for entire balances, WxDxH (inside): 550x470x580 mm

11134470

x

x

x

x

x

x

#### Auxiliary Displays (backlit LCD)

BT-BLD Bluetooth display for table or wall mounting. Wireless connection.

11132555

x

x

x

x

x

x

RS/LC-BLD display for table mounting.

00224200

x

x

x

x

x

x

RS/LC-BLDS display on stand, for table or balance mounting.

11132630

x

x

x

x

x

x

#### Stands and Wall Mountings

Terminal stand for placement of the terminal 30 cm above weighing pan, balances with S-Platform

11132636

–

–

–

–

x (S)

x (S)

Terminal stand for placement of the terminal 30 cm above weighing pan, balances with L-Platform

11132653

–

–

–

–

x (L)

x (L)

Terminal and printer stand for Microbalances and Analytical Balances

11106730

–

x

x

x

–

–

Terminal wall mounting, incl. terminal extension cable, 1.8 m

11132665

x

x

x

x

x

x

#### Terminal Cable

Terminal extension cable, 4.5 m

11600517

x

x

x

x

x

x

#### Optical Sensor

ErgoSens, optical infrared sensor for hands-free operation. Connection via Aux 1, Aux 2.

11132601

x

x

x

x

x

x

#### Foot Switches

Foot Switch with selectable balance functions. Connection via Aux 1, Aux 2

11106741

x

x

x

x

x

x

LC Foot Switch selectable balance functions. Connection via LocalCAN.

00229060

x

x

x

x\*

x

x\*

LC-Switchbox, for connection of up to 3 balances with LocalCAN interface to a printer

00229220

x

x

x

x\*

x

x\*

#### Barcode Readers

**RS232 Barcode Reader – cordless**

21901299

x

x

x

x

x

x

The following items are needed for operation (not incl. in 21901299):

– Cradle

21901300

–

–

–

–

–

–

– Power supply kit 12V EU

21901373

–

–

–

–

–

–

– Power supply kit 12V UK

21901374

–

–

–

–

–

–

– Power supply kit 12V US

21901375

–

–

–

–

–

–

– Power supply kit 12V AUS

21901373

–

–

–

–

–

–

– Same RS232 F cable and null modem adaptor as for RS232 barcode reader

see above

–

–

–

–

–

–

\* = XS only, \*\*=XP only

**Description****RS232 Barcode Reader**

The following items are needed for operation (not incl. in 21901297):

– RS232 F cable

– Null modem adaptor

plus 1 of the following:

– Power supply kit 5V EU

– Power supply kit 5V UK

– Power supply kit 5V US

– Power supply kit 5V AUS

**PS/2 Barcode Reader**

For operation, the following is required (not included in 21901297):

– PS/2 wedge single cable

**PS/2Y Barcode Reader**

For operation, the following is required (not incl. in 21901297):

– PS/2 wedge twin (Y) cable

**Weighing Pans**

Single-use aluminum weighing pans (10 units)

SmartGrid Cover

SmartGrid Cover micro

MPS (Magnetic Protection Shield) weighing pan for 10 mg models  
S-Platform, 170x205 mmMPS (Magnetic Protection Shield) weighing pan for 0.1 g and 1 g models  
S-Platform, 190x223 mmWeighing pan, incl. pan support and ring seal, for 10 mg, 0.1 g or 1 g  
models S-Platform, 170x205 mm (standard for 10 mg models)Weighing pan, incl. pan support, for 10 mg, 0.1 g or 1 g models  
S-Platform, 190x223 mm (standard for 0.1 g models)**Optional Interfaces**

BT option: Bluetooth interface, multipoint connection of up to 6 BT devices

BTS option: Bluetooth interface, single-point connection

RS232 option: interface for connection of a printer, computer or titrator

Ethernet option: Ethernet interface for connection to Ethernet network

PS/2 option: interface for connecting commercial keyboards and barcode  
readers

LocalCAN option: interface for connection of up to 5 LocalCAN (LC) instruments

MiniMettler option: MiniMettler second interface, for connection to older  
(legacy) systems

RS-USB converter cable

**Protective Covers**

Protective cover for XP terminal

Protective cover for XS/XA terminal

Protective cover for XS/XA terminal, Precision Balances with L-Platform

Protective cover for S-Platform, 10 mg and 0.1 g models (covers platform)

Protective cover for XS/XA Precision Balances with S-Platform,  
10 mg and 0.1 g models (covers platform and terminal)

IP54 cover for AC adapter, protects against dust and splashing (IP54)

**Anti-Theft Device**

Steel cord with T-bar mechanism and lock

**Transport Cases**

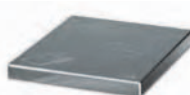
Transport case for Micro- and Ultra Microbalances

Transport case for XP Microbalances

Transport case for Analytical Balances

Transport case for Precision Balances with S-Platform,  
10 mg and 0.1 g models, with space for printer

\* = XS only, \*\*=XP only



Part No.	XP/XS Ultra Micro- and Microbalances	XP26/56 Microbalances (SmartGrid)	XP Analytical Balances (SmartGrid)	XS/XA Analytical Balances (SmartGrid)	XP Precision Balances S/L-Platform	XS/XA Precision Balances S/L-Platform
21901297	x	x	x	x	x	x
The following items are needed for operation (not incl. in 21901297):						
– RS232 F cable	21901305					
– Null modem adaptor	21900924					
plus 1 of the following:						
– Power supply kit 5V EU	21901370					
– Power supply kit 5V UK	21901371					
– Power supply kit 5V US	21901372					
– Power supply kit 5V AUS	21901370 +71209966					
21901297	x	x	x	x	x*	x*
For operation, the following is required (not included in 21901297):						
– PS/2 wedge single cable	see above					
21901297	x	x	x	x*	x	x*
For operation, the following is required (not incl. in 21901297):						
– PS/2 wedge twin (Y) cable	21901308					
11106711	–	–	x	x	–	–
11106709	–	–	x	x	–	–
11106262	–	x	–	–	–	–
11132626	–	–	–	–	x (S)	x (S)
11132625	–	–	–	–	x (S)	x (S)
11132660	–	–	–	–	x (S)	x (S)
11132655	–	–	–	–	x (S)	x (S)
11132530	x	x	x	x	x	x
11132535	x	x	x	x	x	x
11132500	x	x	x	x	x	x
11132515	x	x	x	x*	x	x*
11132520	x	x	x	x*	x	x*
11132505	x	x	x	x*	x	x*
11132510	x	x	x	x*	x	x*
11103691	x	x	x	x	x	x
11132570	x	x	x	–	x	–
11106870	x*	–	–	x	–	x (S)
11132573	–	–	–	–	–	x (L)
11133034	–	–	–	–	x (S)	x (S)
11132571	–	–	–	–	–	x (S)
11132550	x	x	x	x	x	x
11600361	–	x	x	x	x	x
11122760	x	n.a	n.a	n.a	n.a	n.a
11106729	–	x	n.a	n.a	n.a	n.a
11106869	–	–	x	x	–	–
11132595	–	–	–	–	x (S)	x (S)



## Accessories Excellence Balances



Description	Part No.	XP/XS Ultra Micro- and Microbalances	XP20/56 Microbalances (SmartGrid)	XP Analytical Balances (SmartGrid)	XS/XA Analytical Balances (SmartGrid)	XP Precision Balances S/L-Platform	XS/XA Precision Balances S/L-Platform
<b>Filling Process Control</b>							
SQC-XP software package	21901277	–	–	x	–	x	–
SQC14 Printer for control of up to 16 articles	00236210	x	x	x	x	x	x
SQC14 Printer for control of up to 60 articles	00236211	x	x	x	x	x	x
LV11 small items transporter for automatic balance feeding	21900608	x	x	x	x	x	x
LV11 Draft Shield Door	11106715	–	x	x	x	–	–
LV11 Pro Draft Shield Door for 0.1 mg and 1 mg models	11132711	–	–	–	–	x (S)	x (S)
<b>Funnel Set</b>							
Funnel Set for XP/XS Balances	00211220	x	–	–	–	–	–
<b>Dynamic Weighing Kit</b>							
Dynamic Weighing Kit, 4 liter vessel, for 10 mg and 0.1 g S-Platform models and all L-Platform models	11132657	–	–	–	–	x	x
<b>SE-Kit</b>							
XP SE-Kit, separate electronics kit for XP Analytical Balances	11106743	–	–	x	–	–	–
SE-Kit extension cable 0.6 m	00211535	–	–	x	–	–	–
SE-Kit extension cable 5.0 m	00210688	–	–	x	–	–	–
<b>Hook for weighing below the balance</b>							
Below-the-balance weighing device for Precision Balances with L-Platform (integrated in balance models with S-Platforms)	11132565	–	–	–	–	x (L)	x (L)
<b>Production Certificate</b>							
Production Certificate "Pro" for XS/XA Balances	11106895	x*	incl.	incl.	x	incl.	x

\* = XS only, \*\*=XP only



## Accessories NewClassic Balances



Description	Part No.	MS Semi-Micro	MS-S MS-L	ML	PL-S	PL-L
<b>Draft shields</b>						
Draft shield with sliding doors (left/right/top) height 237 mm (MS-S with pan size Ø 90 mm, 127 x 127 mm)	12122404	–	x	–	–	–
Draft shield with sliding doors (left/right/top) height 165 mm (MS-S with pan size Ø 90 mm, 127 x 127 mm)	12122405	–	x	–	–	–
Draft shield flexi, height 100 mm (only for ML203E, ML303E)	12122421	–	–	x	–	–
Glass cylinder for compact models (pan size Ø 120 mm)*	12102988	–	–	–	x	x
*Pan Ø 120 mm (balances with a weighing pan Ø 160 mm require this pan when using draft shield 12102988)	12102987	–	–	–	x	x
Draft shield for precision balances MS-DS-21, height 213 mm (MS-S with pan size 170 x 200 mm, 190 x 226 mm)	12121014	–	x	–	–	–
Draft shield for precision balances ML-DS-21, height 227 mm (ML with pan size 170 x 190 mm)	12121015	–	–	x	–	–
<b>Protective covers</b>						
Protective cover for MS semi-micro	30006615	x	–	–	–	–
Protective cover for MS-S balances with draft shield	12121850	–	x	–	–	–
Protective cover for MS-S balances without draft shield	12121851	–	x	–	–	–
Protective cover for MS-L balances	12121852	–	x	–	–	–
Protective cover for MS-KLE and MS-KLIPE balances	12121853	–	x	–	–	–
Protective cover for ML balances with draft shield	12122030	–	–	x	–	–
Protective cover for ML balances with square pan	12122031	–	–	x	–	–
Protective cover for ML balances with round pan	12122032	–	–	x	–	–
Protective cover for compact models	12102980	–	–	–	x	x

\* on request

## Accessories

### NewClassic Balances

	Part No.	MS Semi- Micro	MS-S MS-L	ML	PL-S	PL-L
<b>Description</b>						
<b>Special Weighing pans</b>						
Dynamic weighing pan MS-DWP-21 (MS-S with pan size 170 x 200 mm, 190 x 226 mm)	30006471	—	x	—	—	—
<b>PowerPac</b>						
PowerPac-M-12V (except MS-L, MS-KLE, MS-KLIPE)	12122363	x	x	x	x	x
<b>AC adapter</b>						
AC Adapter 100-240 V, 12 VDC, 2.25 A	11107909	x	—	—	—	—
Universal adapter set (EU, USA, AU, UK) 100-240 VAC, 50/60 Hz, 0,3 A, out 12 VDC 0,84 A	11120270	—	x	x	x	x
<b>Interface Cables</b>						
USB-RS232 converter cable for connection with PC via USB port; baud rates 1200 to 115,2 K	11103691	x	x	x	x	x
<b>Anti-Theft Devices</b>						
Steel cord with lock	11600361	x	x	x	—	—
Steel cord with lock	00590101	—	—	—	x	x
<b>Auxiliary Displays</b>						
Auxiliary display AD-RS-M7, RS232 large LCD backlit display powered by the balance (RS232 interface)	12122381	x	x	x	—	—
Auxiliary display RS-AD-L7, RS232 LCD display with backlight	72213564	—	—	—	x	x
Auxiliary display RS-AD-L7, PS2 LCD display with backlight	72213566	—	—	—	x	—
<b>Density Kit</b>						
Density kit MS-DNY-54 for solids	30004077	x	—	—	—	—
Density kit MS-DNY-43 for solids	11142143	—	x	—	—	—
Density kit ML-DNY-43 for solids (not compatible with ML203E and ML303E)	11142144	—	—	x	—	—
Glass sinker 10 ml for density determination of liquids in combination with MS-DNY-54, MS-DNY-43 or ML-DNY-43	00210260	x	x	x	—	—
Calibrated glass sinker 10 ml for density determination of liquids in combination with MS-DNY-54, MS-DNY-43 or ML-DNY-43	00210672	x	x	x	—	—
Recalibration for glass sinker 10 ml for density determination of liquids in combination with MS-DNY-54, MS-DNY-43 or ML-DNY-43	00210674	x	x	x	—	—
<b>Evaporation Trap</b>						
Evaporation Trap	30014460	x	—	—	—	—
<b>ErgoSens</b>						
Optical sensor for hands-free operation of MS semi-micro balance	11132601	x	—	—	—	—
Auxiliary footswitch for hands-free operation of MS semi-micro balance	11106741	x	—	—	—	—
<b>Weighing below the balance</b>						
Hook for MS-L	11132565	—	x	—	—	—
<b>LabX direct</b>						
LabX direct balance full version for simple data transfer	11120340	x	x	x	x	x
LabX direct balance demo version (30 days)	11120343	x	x	x	x	x
<b>Transport Case</b>						
Transport case for MS semi-micro balances	30006317	x	—	—	—	—
Transport case for all MS-S balances	11124245	—	x	—	—	—
Transport case for ML balances (without draft shield)	11124240	—	—	x	—	—
Transport case for compact models (without draft shield)	12102982	—	—	—	x	x
<b>Printer</b>						
RS-P28 compact printer with RS232C interface and functions: Print, Zero, Date/Time, Feed, Statistics & Totaling	11124304	x	x	x	x	x
RS-P26 compact printer with RS232C interface and functions: Print, Zero, Date/Time, Feed	11124303	x	x	x	x	x
RS-P25 compact printer with RS232C interface and functions: Print	11124300	x	x	x	x	x

\* on request

## General Accessories



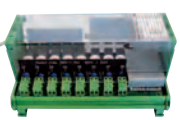
Balances	Description	Part No.
<b>Protective Covers</b>		
UMX/MX	1 Protective in-use cover for display only	11100830
PR/SR/SG	2 Protective in-use covers for PR terminal	00225266
	2 Protective in-use covers for SR/SG terminal	00239305
PR/PG	2 Protective in-use covers for housing of PR/PG balances with 0.001 g/0.01 g readability	00225267
	2 Protective in-use covers for housing of PR/PG balances with 0.1 g/1 g readability	00225268
PG-S	1 Protective in-use cover for housing of PG-S balances with 0.001 g/0.01 g readability	11101338
PG-S	2 Protective in-use covers for housing of PG-S balances with 0.1 g/1 g readability	11101643
AB-S / AB-S/FACT	1 Protective cover	11135408
PB-S/PB-S/FACT/PB-L	1 Protective cover	11103681
SB	2 In-use covers for SB8000, SB8001, SB12001, SB16000, SB16001 and SB16001DR	00230018
	2 Protective in-use covers for SB24001DR, SB32000 and SB32001DR	00230019
AL/PL	1 Protective cover for standard models	12102970



<b>Draft Shields</b>		
MX/UMX	Inner draft disk	11100075
SAG	Draft shield (standard with the SAG105)	00238857
PR/PG/PG-S	Draft shield with removable side glass panels for all PR/PG balances with 0.001 g/0.01 g readability. Net height of 135 mm (standard accessory with PR/PG-S balances with 1 mg readability)	00225269
PR/PG-S	High draft shield with 3 sliding doors for all PR/PG-S balances with 0.001 g/0.01 g readability. Net height of 265 mm	00225500
AB-S/AB-S/FACT/PB-S/FACT/PB-L	Draft shield with sliding doors (left/right/top), height 237 mm	11103682
AB-S/AB-S/FACT/PB-S/FACT/PB-L	Draft shield with sliding doors (left/right/top), height 165 mm	11137468
AB-S/AB-S/FACT/PB-S/FACT	Draft shield for 1 mg models, height 141 mm	11103683
AL/PL	Draft shield for standard models (xx3 models)	12105346
PB-S/FACT/PB-L	Draft shield (round) for faster weighing	11137305



<b>Weighing Pans</b>		
PB-S/FACT/PB-L	Pan Ø 175 mm (balances with weighing pan Ø 180 mm require this pan when using a draft shield)	11103680



<b>Cables</b>		
All, with RS232 interface	RS9 (m) – RS9 (f), cable for connecting a balance (RS232, 9-pin) to a printer, PC or titrator (RS232, 9-pin), 1 m	11101051
	Ex2 cable for RS232 interface, fiber-optic cable with 9-pin RS connector and optoelectric converter with galvanic isolation, 2 m	00224265
	USB – RS232 converter cable, intelligent expansion module that connects a balance (RS232) to a PC USB port. Baud rates 1200 to 115,2 K, 1.7 m	11103691
All, with LocalCAN interface	LC – RS9 (f), cable for connecting a balance (LocalCAN) to a printer, PC or titrator (RS232, 9-pin), 2 m, includes interface box	00229065
	Ex2: LC – RS9 (f), cable for connecting a balance (LocalCAN) in Ex Zone 2 to a printer, PC or titrator (RS232, 9-pin), 1.9 m, includes interface box	00224275
	LC – CL, cable for connecting a balance (LocalCAN) to a device with METTLER TOLEDO CL interface, e.g. titrator, 5-pin, 2 m, includes interface box	00229130
	LC – RS open, cable for connecting to a MT ComBus system; includes interface box, 4 m	21900640
	LC – LC03, extension cable for LocalCAN, 0.3 m, includes connector	00239270
	LC – LC1, extension cable for LocalCAN, 1 m, includes connector	00229161
	LC – LC2, extension cable for LocalCAN, 2 m, includes connector	00229115
	LC – LC5, extension cable for LocalCAN, 5 m, includes connector	00229116
	LC – LCT, cable branch (T-connector) for connection of peripherals with LocalCAN	00229118
	LC – RS8, connection cable for METTLER TOLEDO titrators DL50, DL53, DL55	00229185
	Connection cable for METTLER TOLEDO titrators DL12, DL18, DL21, DL25, DL35, DL40RG, DL40GP (1.5 m long), (LC-CL cable is also required, order no 00229130)	00106090
	LC-Switchbox, for connection of up to 3 balances with LocalCAN interface to a printer	00229220
	LC-I/O Relay interface, programmable input/output relay interface for control or switch of up to 8 external instruments (LocalCAN or RS232 interface required)	21202217

## General Accessories

Balances	Description	Part No.
<b>Cables</b>		
All, with Ethernet interface	Ethernet extension cable, RJ45 patch cable U/UTP, CAT5, 3 m	11600395
	Ethernet extension cable, RJ45 patch cable U/UTP, CAT5, 5 m	11600396
All, with MiniMettler interface	MiniMettler – RS232 connection cable for PC (DB9 f, bidir. handshake, 1.5 m long)	00210493
<b>Data Interface Options</b>		
AX/MX/UMX	RS232C optional second interface for printer/computer connection	11100070
	LC option LocalCAN universal interface for connecting peripheral devices	11100071
	MiniMettler interface for backward compatibility with MT/AT systems	11100072
PG-S	LC-G option LocalCAN universal interface for the connection of several devices simultaneously (replaces the standard RS interface)	11101055
SB	LC-B option. The SB balance comes fitted with an RS232C data interface. The LocalCAN option LC-B can be fitted in order to take advantage of LC peripherals	00228110
AB-S/PB-S	RS232C option for the connection of a printer or computer	11103678
<b>Foot Switch (LocalCAN)</b>		
PR/SR/AG/SG/MX/UMX/PG-S	LC-FS foot switch with adjustable function for balances with LocalCAN universal interface	00229060
<b>Anti-theft Devices</b>		
PR	Metal bolt anti-theft device for through-table mounting	00229175
AB-S/PB-S/SB/PR/SR/PG-S/SG/PL-S/AL/PL	Steel cable with lock	00590101
<b>Auxiliary Displays</b>		
All, with RS232 or LocalCan interfaces	RS/LC-BLD Auxiliary display, external power supply RS/LC-BLDS for mounting on benchtop or balance with backlit LCD display	00224200 11132630
All, with LocalCan interfaces	LC-PD Auxiliary display with a passive display (LCD) mounted on table stand LC-PDS Auxiliary display with a passive display (LCD) mounted on a balance stand	00229100 00229070
All, with Bluetooth interface	BT-BLD (Bluetooth) Auxiliary display, for benchtop mounting. Wireless connection from balance to display by means of Bluetooth wireless network with backlit LCD display	11132555
<b>Control Units</b>		
PR/SR	LC-R terminal Control unit for PR and SR balances; allows you to set up the weighing platform and control unit separate from each other (standard with SR)	00239273
	Wall bracket for LC-R terminal, 2 m cable included	00239278
SR	S-stand for LC-R terminal, compatible with S platforms, cable included	00239268
<b>Density Kit</b>		
AB-S / AB-S/FACT, PB-S/ PB-L/ PB-S/FACT/AL/PL	Density kit for determination of solids	0033360
AB-S/AB-S/FACT/AL	Density kit for determination of liquids with displacement body	00033360 + 00210260
SR/SG/SB	Feedthrough for below-the-balance weighing of large samples	21301097





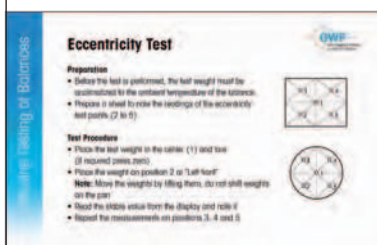
# Professional CarePacs®

## For Smooth Routine Testing

**Perform safe routine testing of your balances with precisely what you need – a METTLER TOLEDO CarePac® with just two test weights. This unique approach means you can rely on accurate measuring results and save time and money. CarePacs® include tweezers, gloves and everything you need for professional weight handling.**

### Time savings

Easy and quick to use testing approach supported by manufacturer designed SOPs.



### Flexible testing

CarePacs® offer the option to add a third weight for customer specific testing, e.g. minimum weight determination.



### Cost savings

Buy only what is needed for routine testing – two weights rather than an entire weight set. Re-calibration costs are lower for two weights compared to an entire set.



### Security through superior accessories

Ergonomic tweezers and weight forks as well as clean-room approved gloves and cleaning cloths meet the highest requirements of all industries.

**CarePac® S**

Weighing ranges up to 490 g

OIML	Balances									
			XP205							
			XP204S	MS205		XP105				
			XP203S	MS304S		XS105		XP56		
			XS205	MS204S		XS104		XS64		
			XS204	MS303S		XA105		ML54		
	XP404S		XS203S	ML204		MS105		HR83		
	XS403S		XA204	ML203		MS104S		HG63	XP26	
	MS403S		XA303S	ML303		ML104		HB43-S	MJ33	
									XP6	XP2U
Set up	200 g F2		200 g F2		100 g F2		50 g F2		20 g F1	5 g E2
	20 g F1		10 g F1		5 g E2		2 g E2		1 g E2	0.2 g E2
Order No.	11123000		11123001		11123002		11123003		11123006	11123005
										11123004

**CarePac® M**

Weighing ranges 500 g – 4900 g

OIML	Balances							
	XP504	MS603S			XP2003S	MS3002S		XP4002S
	XP603S	ML503			XP2002S	ML3002		XP4001S
	XP802S	ML802	XP1203S	MS1003S	XP2001S	ML2001		XS4002S
	XS603S		XP1202S	MS1602S	XS2002S			XS4001S
	XS802S		XS1003S	ML1602	XA3002S			MS4002S
	XA503S		XA1502S	ML1502	XA3001S			ML4002
								ML4001
Set up	500 g F2		1000 g F2		2000 g F2		2000 g F2	
	20 g F1		50 g F2		100 g F2		200 g F2	
Order No.	11123007		11123008		11123009		11123010	

**CarePac® L**

Weighing ranges 5 kg – 8 kg

OIML	Balances	
	XP5003S	XS8001S
	XP8002S	XS6001S
	XP6002S	XA5002S
	XP8001S	MS6002S
	XP6001S	MS8001S
	XS5003S	MS6001S
	XS6002S	ML6001
Set up	5000 g F2	
	200 g F2	
Order No.	11123011	

Only base models of balances are listed. DR, DU, X or E types need the same CarePac as the base models.

**CarePacs®** for non-current METTLER TOLEDO models or 3<sup>rd</sup> party balances

OIML										
Set up	200 g F2	100 g F2	50 g F2	200 g F2	100 g F2	500 g F2	1000 g F2	2000 g F2	5000 g F2	5000 g F2
	50 g F2	50 g F2	50 g F2	100 g F2	100 g F2	10 g F1	10 g F1	10 g F1	500 g F2	100 g F2
Order No.	11123026	11123027	11123028	11123029	11123030	11123036	11123037	11123038	11123012	11123042

**Customized 3<sup>rd</sup> Weight**

3<sup>rd</sup> weights are for customized testing,  
e.g. determination of minimum weight.

Value	OIML Class E2 Order No.
1 mg	11123044
2 mg	11123045
5 mg	11123046
10 mg	11123047
20 mg	11123048
50 mg	11123049
100 mg	11123050
200 mg	11123051
500 mg	11123052

Value	OIML Class E2 Order No.
1 g	11123053
2 g	11123054
5 g	11123055
10 g	11123056
20 g	11123057
50 g	11123058
100 g	11123059

For quotes or technical information  
regarding weights please use the  
email address below.

**weights@mt.com**

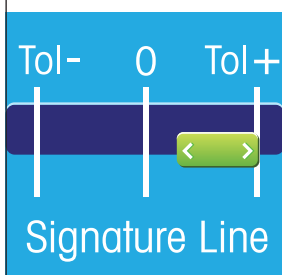
# Signature Line

## OIML E1, E2 and F1



The Signature Line offers more than perfection. Hand selected weights with guaranteed positive tolerances and a life-time guarantee make these weights the first choice for ambitious testing purposes.

### Guaranteed Positive Tolerances



The unique electrolytic adjustment procedure combined with robotic calibrations allows selective production of weights in the positive tolerance range.

### Full Lifetime Guarantee



The "Stay-in-tolerance" lifetime guarantee means that if ever a weight should be found out of tolerance it will be replaced free of charge.



High-grade stainless steel, vacuum melted  
Density: 8.0 kg/dm<sup>3</sup>  
Magnetic susceptibility < 0.01  
One-piece design (Monobloc)

- Weight and Box
- Weight and Box, including Certificate
- Wire weight
- Marked wire weight
- Cylindrical weight with knob
- Marked cylindrical weight with knob

### Individual Weights

Nominal value	Shape	E1		E2	
		Order number Wooden Box		Order number Plastic Box	
1 mg	△	00159000	00159001	–	30003706
2 mg	△	00159010	00159011	–	30003707
5 mg	△	00159020	00159021	–	30003710
10 mg	△	00159030	00159031	–	30003711
20 mg	△	00159040	00159041	–	30003712
50 mg	△	00159050	00159051	–	30003713
100 mg	△	00159060	00159061	–	30003714
200 mg	△	00159070	00159071	–	30003715
500 mg	△	00159080	00159081	–	30003716
1 g	■	00159090	00159091	–	30003717
2 g	■	00159100	00159101	–	30003718
5 g	■	00159110	00159111	–	30003719
10 g	■	00159120	00159121	–	30003720
20 g	■	00159130	00159131	–	30003721
50 g	■	00159140	00159141	–	30003722
100 g	■	00159150	00159151	–	30003723
200 g	■	00159160	00159161	–	30003724
500 g	■	00159170	00159171	–	30003725
1 kg	■	00159180	00159181	–	30003726
2 kg	■	00159190	00159191	–	30003727
5 kg	■	00159200	00159201	–	30003728
10 kg	■	00159210	00159211	–	30003729
20 kg	■	00159220	00159221	–	30003730
50 kg	■	00159230	00159231	–	30003731

– Not available

### Individual Weights

Nominal value	Shape	F1	
		Order number Plastic Box	
1 mg	△	–	30003743
2 mg	△	–	30003744
5 mg	△	–	30003745
10 mg	△	–	30003746
20 mg	△	–	30003747
50 mg	△	–	30003748
100 mg	△	–	30003749
200 mg	△	–	30003750
500 mg	△	–	30003751
1 g	■	–	30003752
2 g	■	–	30003753
5 g	■	–	30003754
10 g	■	–	30003755
20 g	■	–	30003756
50 g	■	–	30003757
100 g	■	–	30003758
200 g	■	–	30003759
500 g	■	–	30003760
1 kg	■	–	30003761
2 kg	■	–	30003762
5 kg	■	–	30003763
10 kg	■	–	30003764
20 kg	■	–	30003765
50 kg	■	–	30003766

– Not available





# Premium Line

## OIML E2 and F1



**Uncompromising selection of steel and rigorous control of manufacturing processes make Premium Line weights the excellent choice for balance calibration and testing. The proven one-piece design (monobloc) guarantees best long term stability and accurate testing results.**

### Premium Stainless Steel



Premium, vacuum melted stainless steel ensures an anti-corrosive surface with low magnetization and susceptibility values.

### Made in Switzerland



The one-piece construction and electrolytically polished surface offer best long term stability. Unmatched Swiss quality!



High-grade stainless steel, vacuum melted  
Density: 8.0 kg/dm<sup>3</sup>  
Magnetic susceptibility < 0.01  
One-piece design (Monobloc)

- Weight and Box
- Weight and Box, including Certificate
- Wire weight
- Marked wire weight
- Cylindrical weight with knob
- Marked cylindrical weight with knob

### Individual Weights

		E2			
Nominal value	Shape	Order number Wooden Box		Order number Plastic Box	
1 mg	△	00158300	00158301	00158306	00158307
2 mg	△	00158310	00158311	00158316	00158317
5 mg	△	00158320	00158321	00158326	00158327
10 mg	△	00158330	00158331	00158336	00158337
20 mg	△	00158340	00158341	00158346	00158347
50 mg	△	00158350	00158351	00158356	00158357
100 mg	△	00158360	00158361	00158366	00158367
200 mg	△	00158370	00158371	00158376	00158377
500 mg	△	00158380	00158381	00158386	00158387
1 g	■	00158390	00158391	00158396	00158397
2 g	■	00158400	00158401	00158406	00158407
5 g	■	00158410	00158411	00158416	00158417
10 g	■	00158420	00158421	00158426	00158427
20 g	■	00158430	00158431	00158436	00158437
50 g	■	00158440	00158441	00158446	00158447
100 g	■	00158450	00158451	00158456	00158457
200 g	■	00158460	00158461	00158466	00158467
500 g	■	00158470	00158471	00158476	00158477
1 kg	■	00158480	00158481	00158486	00158487
2 kg	■	00158490	00158491	00158496	00158497
5 kg	■	00158500	00158501	00158506	00158507
10 kg	■	00158510	00158511	00158516	00158517
20 kg	■	00158520	00158521	00158526	00158527
50 kg	■	00158530	00158531		

### Individual Weights

		F1			
Nominal value	Shape	Order number Wooden Box		Order number Plastic Box	
1 mg	△	00159410	00159411	00159416	00159417
2 mg	△	00159420	00159421	00159426	00159427
5 mg	△	00159430	00159431	00159436	00159437
10 mg	△	00159440	00159441	00159446	00159447
20 mg	△	00159450	00159451	00159456	00159457
50 mg	△	00159460	00159461	00159466	00159467
100 mg	△	00159470	00159471	00159476	00159477
200 mg	△	00159480	00159481	00159486	00159487
500 mg	△	00159490	00159491	00159496	00159497
1 g	■	00158600	00158601	00158606	00158607
2 g	■	00158610	00158611	00158616	00158617
5 g	■	00158620	00158621	00158626	00158627
10 g	■	00158630	00158631	00158636	00158637
20 g	■	00158640	00158641	00158646	00158647
50 g	■	00158650	00158651	00158656	00158657
100 g	■	00158660	00158661	00158666	00158667
200 g	■	00158670	00158671	00158676	00158677
500 g	■	00158680	00158681	00158686	00158687
1 kg	■	00158690	00158691	00158696	00158697
2 kg	■	00158700	00158701	00158706	00158707
5 kg	■	00158710	00158711	00158716	00158717
10 kg	■	00158720	00158721	00158726	00158727
20 kg	■	00158730	00158731	00158736	00158737
50 kg	■	00158740	00158741		



All weights are delivered in impact resistant plastic boxes and high quality foam inserts.

## Weight Sets

Weight Sets	E2									F1							
	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g	1 mg 1 kg	1 kg 5 kg	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g	1 kg 5 kg
1 mg	△	△	△	△	△			△△		△	△	△	△	△			
2 mg	△△	△△	△△	△△	△△			△△		△△	△△	△△	△△	△△			
5 mg	△	△	△	△	△			△△		△	△	△	△	△			
10 mg	△	△	△	△	△			△△		△	△	△	△	△			
20 mg	△△	△△	△△	△△	△△			△△		△△	△△	△△	△△	△△			
50 mg	△	△	△	△	△			△△		△	△	△	△	△			
100 mg	△	△	△	△	△			△△		△	△	△	△	△			
200 mg	△△	△△	△△	△△	△△			△△		△△	△△	△△	△△	△△			
500 mg	△	△	△	△	△			△△		△	△	△	△	△			
1 g		■	■	■	■	■	■	■			■	■	■	■	■	■	
2 g		■	■	■	■	■	■	■			■	■	■	■	■	■	
5 g		■	■	■	■	■	■	■			■	■	■	■	■	■	
10 g		■	■	■	■	■	■	■			■	■	■	■	■	■	
20 g		■	■	■	■	■	■	■			■	■	■	■	■	■	
50 g		■	■	■	■	■	■	■			■	■	■	■	■	■	
100 g		■	■	■	■		■	■			■	■	■	■		■	
200 g		■	■	■	■		■	■			■	■	■	■		■	
500 g			■	■	■		■	■				■	■	■		■	
1 kg			■	■	■			■	■			■	■	■			■
2 kg				■	■				■				■	■			■
5 kg					■				■					■			■
No. of Weights	12	23	25	27	28	8	12	38	4	12	23	25	27	28	8	12	4
Wooden Box	00158800	00158840	00158850	11117624	11117626	00158810	00158820	00158860	00158830	00161700	00158900	00158910	11117802	11117804	00158870	00158880	00158890
	00158801	00158841	00158851	11117625	11117627	00158811	00158821	00158861	00158831	00161701	00158901	00158911	11117803	11117805	00158871	00158881	00158891
Plastic Box	00158806	00158846	00158856	11117321	11117323	00158816	00158826	—	11125900	00161706	00158906	00158916	11119979	11119981	00158876	00158886	11125907
	00158807	00158847	00158857	11117322	11117324	00158817	00158827	—	11125901	00161707	00158907	00158917	11119980	11119982	00158877	00158887	11125908

# Basic Line

## OIML F1, F2 and M1



Proven technology and competitive prices make Basic Line weights a cost effective solution for general testing purposes. All weights are made of stainless steel, even for mg weights no aluminum is used. Weights are manufactured under METTLER TOLEDO's stringent ISO9001 quality management system.

### Economical Production



The adjustable cavity (AC) design can be manufactured more economically, making these weights affordable even for smaller budgets.

### Clean-room Suitability



All Basic Line weights are protected in robust and easy to clean plastic boxes. FDA approved materials, including foam inserts, make them a perfect solution for regulated industries.



Stainless steel  
Density: 7.9 kg/dm<sup>3</sup>

Weight and Box

Weight and Box,  
including Certificate

- ☐ Sheet weight
- ☒ Marked sheet weight
- ☒ Cylindrical weight with knob
- ☒ Marked cylindrical weight with knob

Marked single weights are available on request

### Individual Weights

Nominal value	Shape	F1		F2		M1	
		Order number Plastic Box		Order number Plastic Box		Order number Plastic Box	
1 mg	<input type="checkbox"/>	11119491	11119561	11119079	11118271	11117935	11117751
2 mg	<input type="checkbox"/>	11119492	11119562	11119080	11118272	11117936	11117752
5 mg	<input type="checkbox"/>	11119493	11119563	11119081	11118273	11117937	11117753
10 mg	<input type="checkbox"/>	11119494	11119564	11119082	11118274	11117938	11117754
20 mg	<input type="checkbox"/>	11119495	11119565	11119083	11118275	11117939	11117755
50 mg	<input type="checkbox"/>	11119496	11119566	11119084	11118276	11117940	11117756
100 mg	<input type="checkbox"/>	11119497	11119567	11119085	11118285	11117941	11117757
200 mg	<input type="checkbox"/>	11119498	11119568	11119086	11118286	11117942	11117758
500 mg	<input type="checkbox"/>	11119499	11119569	11119087	11118287	11117943	11117759
1 g	<input checked="" type="checkbox"/>	11119455	11119525	11119042	11118191	11118055	11117711
2 g	<input checked="" type="checkbox"/>	11119456	11119526	11119043	11118192	11118056	11117712
5 g	<input checked="" type="checkbox"/>	11119457	11119527	11119044	11118193	11118057	11117713
10 g	<input checked="" type="checkbox"/>	11119458	11119528	11119045	11118194	11118058	11117714
20 g	<input checked="" type="checkbox"/>	11119459	11119529	11119046	11118195	11118059	11117715
50 g	<input checked="" type="checkbox"/>	11119460	11119530	11119047	11118196	11118060	11117716
100 g	<input checked="" type="checkbox"/>	11119461	11119531	11119048	11118201	11118061	11117717
200 g	<input checked="" type="checkbox"/>	11119462	11119532	11119049	11118202	11118062	11117718
500 g	<input checked="" type="checkbox"/>	11119463	11119533	11119050	11118203	11118063	11117719
1 kg	<input checked="" type="checkbox"/>	11119464	11119534	11119051	11118204	11118064	11117721
2 kg	<input checked="" type="checkbox"/>	11119465	11119535	11119052	11118205	11118065	11117722
5 kg	<input checked="" type="checkbox"/>	11119466	11119536	11119053	11118206	11118066	11117723
10 kg	<input checked="" type="checkbox"/>	11119467	11119537	11119054	11118211	11118067	11117724
20 kg	<input checked="" type="checkbox"/>	11119468	11119538	11119055	11118212	11118068	11117725

### Weight Sets

	F1						
	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g
1 mg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2 mg	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
5 mg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
10 mg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
20 mg	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
50 mg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
100 mg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
200 mg	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
500 mg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
1 g		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2 g		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5 g		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10 g		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
20 g		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
50 g		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
100 g		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
200 g		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
500 g			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
1 kg			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
2 kg				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
5 kg					<input checked="" type="checkbox"/>		
Number of Weights	12	23	25	27	28	8	12
Plastic Box	11119511 11119581	11119512 11119582	11119513 11119583	11119514 11119584	11119515 11119585	11119516 11119586	11119517 11119587

## Weight Sets

	F2						
	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g
1 mg	□	□	□	□	□		
2 mg	□	□	□	□	□		
5 mg	□	□	□	□	□		
10 mg	□	□	□	□	□		
20 mg	□	□	□	□	□		
50 mg	□	□	□	□	□		
100 mg	□	□	□	□	□		
200 mg	□	□	□	□	□		
500 mg	□	□	□	□	□		
1 g		■	■	■	■	■	■
2 g		■	■	■	■	■	■
5 g		■	■	■	■	■	■
10 g		■	■	■	■	■	■
20 g		■	■	■	■	■	■
50 g		■	■	■	■	■	■
100 g		■	■	■	■		■
200 g		■	■	■	■		■
500 g			■	■	■		■
1 kg			■	■	■		
2 kg				■	■		
5 kg					■		
Number of Weights	12	23	25	27	28	8	12
Plastic Box	11118456 11118339	11118457 11118340	11118458 11118341	11118459 11118342	11118460 11118343	11118461 11118344	11118462 11118345

	M1						
	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g
1 mg	□	□	□	□	□		
2 mg	□	□	□	□	□		
5 mg	□	□	□	□	□		
10 mg	□	□	□	□	□		
20 mg	□	□	□	□	□		
50 mg	□	□	□	□	□		
100 mg	□	□	□	□	□		
200 mg	□	□	□	□	□		
500 mg	□	□	□	□	□		
1 g		■	■	■	■	■	■
2 g		■	■	■	■	■	■
5 g		■	■	■	■	■	■
10 g		■	■	■	■	■	■
20 g		■	■	■	■	■	■
50 g		■	■	■	■	■	■
100 g		■	■	■	■		■
200 g		■	■	■	■		■
500 g			■	■	■		■
1 kg			■	■	■		
2 kg				■	■		
5 kg					■		
Number of Weights	12	23	25	27	28	8	12
	11117862 11117771	11117863 11117772	11117864 11117773	11117865 11117774	11117866 11117775	11117867 11117776	11117868 11117777

Accessories **Tweezers**

	Order number
Straight tips, for weights 1 mg – 20 g, length 115 mm	00015900
Straight tips, for weights 1 mg – 20 g, length 220 mm	11116544
Straight tips, for weights 20 g – 200 g, length 140 mm	11116543
Bent tips, for weights 20 g – 200 g, length 200 mm	00015901
Bent tips, for weights 1 mg – 200 g, length 130 mm	11116540

## Weight Forks



	Order number
Aluminum/Polyamide, for weights 500 g – 1 kg, length 300 mm	00222175
Aluminum/Polyamide, for 2 kg weights, length 320 mm	00015902
Aluminum/Polyamide, for 5 kg weights, length 470 mm	00015903
ABS, for 500 g weights, length 150 mm	11123094
ABS, for 1 kg weights, length 150 mm	11123095

## Miscellaneous Accessories



Nylon gloves

Weight marking

	Order number
Leather gloves, pair, not suitable for regulated environments	00072001
Nylon gloves, pair, suitable for all environments	11123098
Micro fibre cloth, suitable for all environments	00158798
Brush, suitable for all environments	00158799
Weight marking, up to 5 digits, alphanumeric, on 1 g – 50 kg weights	11116500

## Weight Handles



	Order number
Steel with rubber coating, for 2 kg weights	11123096
Steel with rubber coating, for 5 kg weights	11123097
Aluminum, for 10 kg and 20 kg weights	00015904
Aluminum, for 10 kg and 20 kg weights, with ear for crane	11116517
Aluminum, for 50 kg weights, with ear for crane	11116515