

MX Precision Balances

Fast and Accurate



Fast and Accurate Weighing

The high-resolution load cell delivers accurate and reliable results with capacities up to 32 kg and readability as low as 1 mg. With SmartPan, the balance stabilizes quickly, even in turbulent environments, enabling fast and efficient weighing.



GxP Compliance Support

Automatic data logging and user management options help you to comply with GxP guidelines. Transfer data to a printer or computer for complete and error-free documentation.



Innovative Engineering

Clever features provide an ergonomic, stress-free weighing experience, especially for long or repetitive tasks: The StatusLight provides instant confirmation of the balance status, the large display is easy to read, and advanced reporting options simplify documentation.



Durable Construction

High-quality materials and robust IP54 construction ensure a long balance lifetime, providing an overall low cost of ownership.



Smart Features

For Advanced Requirements

The superior load cell, quality assurance functions, and multiple connectivity options combine to satisfy higher demands for accuracy, compliance, and efficiency. Easily integrated into your existing laboratory infrastructure, these balances have a multitude of smart features to make your weighing processes fast, convenient, and efficient.

Define your own routine testing schedule on the balance according to your internal quality requirements and process tolerances. Your balance will remind you when tests are due to be sure your results remain accurate in the intervals between calibrations.

When you don't need to use your balance, the configurable power-saving mode minimizes energy usage and saves costs.

METTLER TOLEDO

Technical Specifications



	MX303	MX603	MX1203
Limit values			
Capacity	320 g	620 g	1.22 kg
Readability	1 mg	1 mg	1 mg
Repeatability (at 5% load)	0.9 mg	0.9 mg	0.9 mg
Linearity deviation	2 mg	2 mg	2 mg
Sensitivity offset (at nominal load) ▲	6 mg	6 mg	7 mg
Typical values			
Repeatability (at 5% load)	0.5 mg	0.5 mg	0.5 mg
Linearity deviation	0.6 mg	0.6 mg	0.6 mg
Sensitivity offset (at nominal load) ▲	4 mg	4 mg	4 mg
Minimum weight (USP, tolerance = 0.10%) ▼	1 g	1 g	1 g
Minimum weight (tolerance = 1%) ▼	100 mg	100 mg	100 mg
Settling time	1.5 s	1.5 s	1.5 s
Dimensions and other specifications			
Balance dimensions (W × D × H)	222 × 379 × 353 mm	222 × 379 × 353 mm	222 × 379 × 353 mm
Weighing pan dimensions (W × D)	127 × 127 mm	127 × 127 mm	127 × 127 mm

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

All models are available as approved versions.



	MX303N	MX603N	MX1203N
Limit values			
Capacity	320 g	620 g	1.22 kg
Readability	1 mg	1 mg	1 mg
Repeatability (at 5% load)	0.9 mg	0.9 mg	0.9 mg
Linearity deviation	2 mg	2 mg	2 mg
Sensitivity offset (at nominal load) ▲	6 mg	6 mg	7 mg
Typical values			
Repeatability (at 5% load)	0.5 mg	0.5 mg	0.5 mg
Linearity deviation	0.6 mg	0.6 mg	0.6 mg
Sensitivity offset (at nominal load) ▲	4 mg	4 mg	4 mg
Minimum weight (USP, tolerance = 0.10%) ▼	1 g	1 g	1 g
Minimum weight (tolerance = 1%) ▼	100 mg	100 mg	100 mg
Settling time	1.5 s	1.5 s	1.5 s
Dimensions and other specifications			
Balance dimensions (W × D × H)	194 × 379 × 100 mm	194 × 379 × 100 mm	194 × 379 × 100 mm
Weighing pan dimensions (W × D)	127 × 127 mm	127 × 127 mm	127 × 127 mm

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

All models are available as approved versions.



	MX2002	MX4002	MX6002
Limit values			
Capacity	2.2 kg	4.2 kg	6.2 kg
Readability	0.01 g	0.01 g	0.01 g
Repeatability (at 5% load)	8 mg	8 mg	8 mg
Linearity deviation	20 mg	20 mg	20 mg
Sensitivity offset (at nominal load) ▲	80 mg	80 mg	80 mg
Typical values			
Repeatability (at 5% load)	4 mg	4 mg	4 mg
Linearity deviation	6 mg	6 mg	6 mg
Sensitivity offset (at nominal load) ▲	50 mg	50 mg	50 mg
Minimum weight (USP, tolerance = 0.10%) ▼	8.2 g	8.2 g	8.2 g
Minimum weight (tolerance = 1%) ▼	820 mg	820 mg	820 mg
Settling time	1 s	1 s	1 s
Dimensions and other specifications			
Balance dimensions (W × D × H)	194 × 379 × 103 mm	194 × 379 × 103 mm	194 × 379 × 103 mm
Weighing pan dimensions (W × D)	170 × 203 mm	170 × 203 mm	170 × 203 mm
▲ after adjustment with internal weight			
▼ determined at 5% load, k = 2			
All models are available as approved versions.			



	MX6002DR	MX12002
Limit values		
Capacity	6.2 kg	12.2 kg
Readability	0.1 g	0.01 g
Capacity of fine range	1.2 kg	–
Readability in fine range	0.01 g	–
Repeatability (at 5% load)	8 mg	8 mg
Linearity deviation	30 mg	20 mg
Sensitivity offset (at nominal load) ▲	120 mg	70 mg
Typical values		
Repeatability (at 5% load)	4 mg	4 mg
Linearity deviation	10 mg	6 mg
Sensitivity offset (at nominal load) ▲	80 mg	40 mg
Minimum weight (USP, tolerance = 0.10%) ▼	8.2 g	8.2 g
Minimum weight (tolerance = 1%) ▼	820 mg	820 mg
Settling time	1 s	1 s
Dimensions and other specifications		
Balance dimensions (W × D × H)	194 × 379 × 103 mm	194 × 379 × 103 mm
Weighing pan dimensions (W × D)	170 × 203 mm	170 × 203 mm
▲ after adjustment with internal weight		
▼ determined at 5% load, k = 2		
All models are available as approved versions.		



	MX6001	MX8001
Limit values		
Capacity	6.2 kg	8.2 kg
Readability	0.1 g	0.1 g
Repeatability (at 5% load)	50 mg	50 mg
Linearity deviation	60 mg	100 mg
Sensitivity offset (at nominal load) ▲	240 mg	400 mg
Typical values		
Repeatability (at 5% load)	40 mg	40 mg
Linearity deviation	20 mg	30 mg
Sensitivity offset (at nominal load) ▲	150 mg	250 mg
Minimum weight (USP, tolerance = 0.10%) ▼	82 g	82 g
Minimum weight (tolerance = 1%) ▼	8.2 g	8.2 g
Settling time	0.8 s	1 s
Dimensions and other specifications		
Balance dimensions (W × D × H)	194 × 379 × 104 mm	194 × 379 × 104 mm
Weighing pan dimensions (W × D)	172 × 205 mm	172 × 205 mm

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

All models are available as approved versions.



	MX12001L	MX16001L	MX32001L	MX32000L
Limit values				
Capacity	12.2 kg	16.2 kg	32.2 kg	32.2 kg
Readability	0.1 g	0.1 g	0.1 g	1 g
Repeatability (at 5% load)	80 mg	80 mg	80 mg	600 mg
Linearity deviation	200 mg	200 mg	250 mg	300 mg
Sensitivity offset (at nominal load) ▲	600 mg	600 mg	800 mg	1 g
Typical values				
Repeatability (at 5% load)	40 mg	40 mg	40 mg	400 mg
Linearity deviation	60 mg	60 mg	80 mg	100 mg
Sensitivity offset (at nominal load) ▲	400 mg	400 mg	500 mg	600 mg
Minimum weight (USP, tolerance = 0.10%) ▼	82 g	82 g	82 g	820 g
Minimum weight (tolerance = 1%) ▼	8.2 g	8.2 g	8.2 g	82 g
Settling time	1.5 s	1.5 s	1.5 s	1.2 s
Dimensions and other specifications				
Balance dimensions (W × D × H)	354 × 380 × 126 mm	354 × 380 × 126 mm	354 × 380 × 126 mm	354 × 380 × 126 mm
Weighing pan dimensions (W × D)	352 × 246 mm	352 × 246 mm	352 × 246 mm	352 × 246 mm

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

All models are available as approved versions.

Features

Performance

- MonoBloc weighing cell
- SmartPan
- FACT automatic internal adjustment

Efficient Operation

- 7" touchscreen
- 10 built-in applications
- Ergonomic door operation
- Statistical data analysis

Quality Assurance

- OIML/NTEP approved
- User management
- Leveling assistant
- Configurable sample and task IDs
- Activity log
- StatusLight
- Configurable routine tests
- Time server synchronisation

Data Management

- 3 interfaces: USB-A, USB-C, Ethernet
- Bluetooth option
- Advanced reporting

- Autopublish function
- Drop-to-cursor
- MT-SICS
- EasyDirect Balance software

Sustainable Value

- Full metal housing
- IP54 (10 mg – 1 g models)
- IP41 (1 mg models)
- Overload protection
- Power-saving mode
- Easy-to-clean QuickLock draft shield

Power Consumption

Instrument Steady State	Approx. Power Consumption (W)*
Operational Mode	2.6–3.0
Standby Mode	2.4–2.6
Power Saving Mode	0.7

*Test results conducted by METTLER TOLEDO under ideal conditions.

Operational Mode = Default balance settings



Applications

- Weighing
- Piece Counting
- Density Determination
- Backweighing
- Differential Weighing
- Formulation
- Check Weighing
- Totaling
- Dynamic Weighing
- Statistics



Accessories

Enhance performance, improve ergonomics, and handle your data efficiently with our wide range of accessories, including EasyDirect Balance data management software, printers, weights, density kit, and Bluetooth adapter.

For further information on accessories, please visit our web page.

► www.mt.com/lab-accessories



Professional Service

With a professional installation, your balance is expertly set up to deliver accurate results from day one.

To learn more about our service offerings, scan the QR code or visit our website:

► www.mt.com/professional-service



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