Datasheet

MR Precision Balances

Robust and Reliable

Designed for Convenience

Advanced technologies, including automatic adjustment and guided leveling, simplify daily weighing. Solidly built and with IP43, cleaning is easy too.

Easy Integration

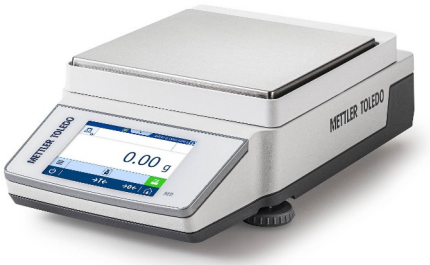
Multiple interfaces and MT-SICS commands make it simple to connect your MR balance to PLC and MES systems as well as other lab instruments.

User Management

By setting up different user groups and profiles, operators see just the functions and applications they need to carry out their tasks, simplifying processes and reducing errors.

IP43 Protection

IP43 ingress protection prevents dirt and liquid spills from entering the balance, protecting the load cell and electronics. The robust design makes this balance suitable for use in more challenging weighing environments.



Your Weighing Partner

For All Environments

These reliable balances deliver consistently accurate results even in the toughest weighing environments. Built-in applications and multiple connectivity options make these durable balances highly versatile whether you're in the lab or out on the factory floor.

The full metal housing and durable components are tested in the harshest environments to ensure protection against dirt and chemicals. The overload protection safeguards the weighing cell against excess loads and accidental drops on the weighing pan.

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

METTLER TOLEDO

Technical Specifications

	MR203	MR303	MR503	MR603
Limit values				
Capacity	220 g	320 g	520 g	620 g
Readability	1 mg	1 mg	1 mg	1 mg
Repeatability (at 5% load)	1 mg	1 mg	1 mg	1 mg
Linearity deviation	2 mg	2 mg	2 mg	2 mg
Sensitivity offset (at nominal load) ▲	8 mg	8 mg	8 mg	8 mg
Typical values				
Repeatability (at 5% load)	0.7 mg	0.7 mg	0.7 mg	0.7 mg
Linearity deviation	0.6 mg	0.6 mg	0.6 mg	0.6 mg
Sensitivity offset (at nominal load) ▲	5 mg	5 mg	5 mg	5 mg
Minimum weight (USP, tolerance = 0.10%) ▼	1.4 g	1.4 g	1.4 g	1.4 g
Minimum weight (tolerance = 1%) ▼	140 mg	140 mg	140 mg	140 mg
Settling time	1.5 s	1.5 s	1.5 s	1.5 s
Dimensions and other specifications				
Balance dimensions (W × D × H)	209 × 351 × 354 mm	209 × 351 × 354 mm	209 × 351 × 354 mm	209 × 351 × 354 mm
Weighing pan dimensions (W × D)	–	–	–	–
Weighing pan diameter	120 mm	120 mm	120 mm	120 mm

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

All models are available as approved versions.

	MR1002	MR2002	MR3002
Limit values			
Capacity	1.2 kg	2.2 kg	3.2 kg
Readability	10 mg	10 mg	10 mg
Repeatability (at 5% load)	10 mg	10 mg	10 mg
Linearity deviation	20 mg	20 mg	20 mg
Sensitivity offset (at nominal load) ▲	60 mg	80 mg	80 mg
Typical values			
Repeatability (at 5% load)	7 mg	7 mg	7 mg
Linearity deviation	6 mg	6 mg	6 mg
Sensitivity offset (at nominal load) ▲	40 mg	50 mg	50 mg
Minimum weight (USP, tolerance = 0.10%) ▼	14 g	14 g	14 g
Minimum weight (tolerance = 1%) ▼	1.4 g	1.4 g	1.4 g
Settling time	1 s	1 s	1 s
Dimensions and other specifications			
Balance dimensions (W × D × H)	209 × 351 × 100 mm	209 × 351 × 100 mm	209 × 351 × 100 mm
Weighing pan dimensions (W × D)	180 × 180 mm	180 × 180 mm	180 × 180 mm
Weighing pan diameter	–	–	–

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

All models are available as approved versions.

	MR4002	MR6002	MR6001
Limit values			
Capacity	4.2 kg	6.2 kg	6.2 kg
Readability	10 mg	10 mg	100 mg
Repeatability (at 5% load)	10 mg	10 mg	80 mg
Linearity deviation	20 mg	20 mg	60 mg
Sensitivity offset (at nominal load) ▲	80 mg	80 mg	300 mg
Typical values			
Repeatability (at 5% load)	7 mg	7 mg	50 mg
Linearity deviation	6 mg	6 mg	20 mg
Sensitivity offset (at nominal load) ▲	50 mg	50 mg	150 mg
Minimum weight (USP, tolerance = 0.10%) ▼	14 g	14 g	100 g
Minimum weight (tolerance = 1%) ▼	1.4 g	1.4 g	10 g
Settling time	1 s	1 s	1 s
Dimensions and other specifications			
Balance dimensions (W × D × H)	209 × 351 × 100 mm	209 × 351 × 100 mm	209 × 351 × 100 mm
Weighing pan dimensions (W × D)	180 × 180 mm	180 × 180 mm	180 × 180 mm
Weighing pan diameter	–	–	–

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

All models are available as approved versions.

Features

Performance

- Electromagnetic Force Compensation (EMFC) weighing cell
- FACT automatic internal adjustment

Efficient Operation

- 4.5" touchscreen
- 9 built-in applications
- Statistical data analysis

Quality Assurance

- OIML/NTEP approved
- User management
- Leveling assistant
- Configurable sample and task IDs
- Activity log
- Pre-defined routine tests

Data Management

- 4 interfaces: USB-A, USB-C, RS232, Ethernet
- Bluetooth option
- Advanced reporting
- Drop-to-cursor
- MT-SICS
- EasyDirect Balance software

Sustainable Value

- Full metal housing
- Overload protection
- Power-saving mode
- Easy-to-clean QuickLock draft shield

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