# Mass Comparators



**MC-1000** 1100 g × 0.0001 g

**MC-6100** 6100 g × 0.001 g

**MC-10K** 10.1 kg × 0.001 g

**MC-30K** 31 kg × 0.01 g

**MC-100KS** 101 kg × 0.1 g

MC-6100

MC-10K

MC-100KS

AND MC

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...Clearly a Better Value

# Revealed – Here Are What A&D Use To Manage Their Masses!

It's not easy to find high performance, quality mass comparators that meet your budget, is it? Discover how A&D, an ISO17025 accredited calibration laboratory as well as being a weighing equipment manufacturer, can finally solve such problems for you—.

# 1. Enhanced stabilizing filter

High resolution balances like the MC series can respond to even the slightest environmental disturbances. For smooth and accurate mass comparison, the MC series is equipped with a special stabilizing function that copes with the effect of drafts or vibrations.

# 2. Simplified calibration of the balance

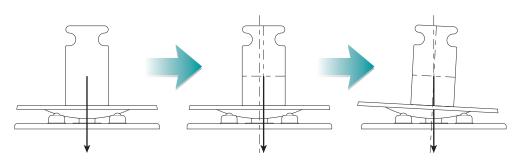
Using the internal mass, you can ensure the balance accuracy with one key press when changes to the environment (such as temperature or location) take place. The internal mass value can be corrected as necessary.

# 3. Various options to minimize possible measurement errors

Even under a perfectly controlled weighing environment, there still remain errors that can arise from operation. The following tools are effective in managing such errors:

## Auto-centering pan (available for MC-1000/6100/10K/30K)

Corrects eccentric loading automatically by bringing the mass to the center.



Please also visit our video library at www.aandd.jp to see how it operates!



MC Series with auto-centering pans

Remote controller (AD-8922A) Enables operations without directly touching and consequently shaking the balance.

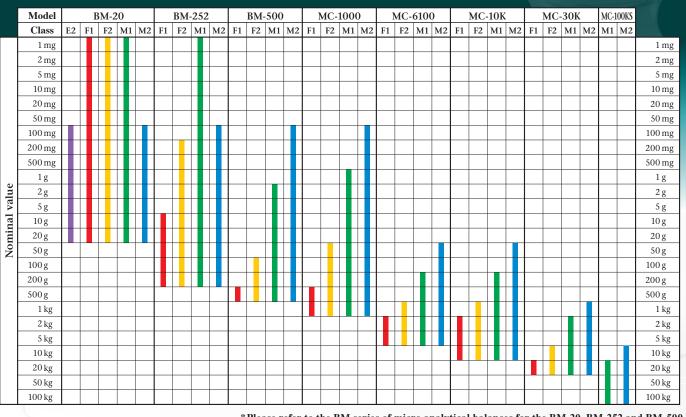


(AD-1683) Instantly neutralizes charged objects such as the operator's clothes to ensure stable weighing.

**Static eliminator** 



## **Recommended Measurement Ranges**



\*Please refer to the BM series of micro analytical balances for the BM-20, BM-252 and BM-500.

Wait, there is more! If you are in the industrial sector, how about using the MC series as

# **Precision Balances With Extended Resolution**

The MC series displays the weighing results with an extra decimal place not normally found in balances of the same capacity. Such extended resolution enables measurements of minute weight changes with heavy objects or containers. Example applications include:

## Management of Liquids

- Resist inks on flat panels (glass)
- Coating materials on silicon wafers
- Moisture contents of catalysts
- Solder pastes and sealing materials on electronic parts
- Resins used for LED lenses
- Surface materials on optical lenses
- Grease in miniature bearings for hard disks

### Management of Gases

- Fill ration of hydrogen gas
- Gasified components

# Underhook

(Optional for

MC-100KS)



MC-10K/30K/100KS

### Management of Powders

- Medicines in pharmaceutical manufacturing from full flow to minute flow
- Discharges (losses in weight) from feeders
- Wear volumes of metallic materials
- Cutting dust (contaminants) left on mechanical parts
- Particles caught by filters

## **Production Line Weighing**

As precision check-weighing sensors with wider ranges



#### **Specifications**

Models	MC-1000	MC-6100	MC-10K	MC-30K	MC-100KS
Weighing capacity	1100 g	6100 g	10.1 kg	31 kg	101 kg
Minimum weighing value	0.0001 g	0.001 g		0.01 g	0.1 g
Repeatability (standard deviation) *1	0.0005 g (for 1 kg) 0.0004 g (for 500 g)	0.004 g (for 5 kg) 0.0015 g (for 2 kg)	0.005 g (for 10 kg) 0.004 g (for 5 kg)	0.015 g (for 20 kg)	0.2 g (for 100 kg) 0.1 g (for 60 kg)
Linearity	±0.003 g	±0.03 g		±0.2 g	±2 g
Sensitivity drift (10 to 30°C / 50 to 86°F)		±2 ppm / °C		±3 ppm / °C	±6 ppm / °C
Accuracy immediately after internal calibration *2	±0.010 g	±0.15 g		±1.5 g	±10.0 g
Operating environment	5°C to 40°C (41°F to 104°F), 85%RH or less (no condensation)				
Display refresh rate	5 times/second or 10 times/second				
Display mode *3	Gram, kilogram (for MC-10K/30K/100KS), ounce, pound, pound-ounce, troy ounce, metric carat, momme, pennyweight, grain,				
	counting mode, percent mode, density mode, and a user-programmable unit				
Standard interface	RS-232C				
Weighing pan size	128 × 128 mm	165 × 165 mm	270 × 2	10 mm	386 x 346 mm
External dimensions	210 (W) × 317 (D) × 86 (H) mm		300 (W) × 355 (D) × 111 (H) mm		Display unit: 260 (W) × 164 (D) × 202 (H) mm Platform: 346 (W) × 443 (D) × 130 (H) mm Cable length: 3 m
Net weight	Approx. 4.6 kg	Approx. 5.1 kg	Approx	9.3 kg	Approx. 18 kg
Power consumption	Approx. 11 VA (supplied to the AC adapter) Approx. 15 VA (supplied to the AC				Approx. 15 VA (supplied to the AC adapter)

\* 1 Repeatability when the auto-centering pan or an automatic weight loader is used under good environmental conditions.

\* 2 Accuracy immediately after internal calibration performed under good environmental conditions. The values are for the weighing capacities.

\* 3 Either tael (Singapore/HK jewelry/Taiwan) or tola can be added upon request.

### **Options**

#### For MC-1000/6100

- GX-02 \*4 Quick USB interface with cable
- GX-04 \*4\*5 Comparator output with a buzzer/RS-232C/Current loop output
- GX-06 \*4\*5 Analog output/Current loop output
- GX-12 Animal weighing pan
- GX-13 Density determination kit (for MC-1000 only)
- \* 4 Only one of GX-02, GX-04, GX-06 or the standard RS-232C interface can be used.
- \* 5 Factory-installed options

#### For MC-10K/30K

- GX-04K \*6 Comparator output with a buzzer/RS-232C/Current loop output
- GX-06K \*6 Analog output/Current loop output
- GX-07K Waterproof RS-232C cable (25P-9P, 5 m)
- GXK-012 Animal weighing pan
- GXK-015 Carrying case

\* 6 Only one of GX-04K, GX-06K or the standard RS-232C can be used. The MC-10K/30K are not IP65 compliant with these options.

#### For MC-100KS

- GP-04 \*7 Comparator output with a buzzer/RS-232C/Current loop output
- GP-06 \*7 Analog output/Current loop output
- GP-07 \*8 5-meter extension cable
- **GP-12** Animal weighing pan
- GP-21 Underhook
- **GP-22** AD-8121B printer support
- $\ast$  7 Only one of GP-04, GP-06 or the standard RS-232C can be used.
- \* 8 Factory-installed option

### Accessories

AD-1603-E2 *9	Calibration masses, OIML class E2		
AD-1603-F1 *9	Calibration masses, OIML class F1		
AD-1682	Rechargeable battery unit		
AD-1683	Static eliminator		
AD-1684	Electrostatic fieldmeter		
AD-1687	Weighing environment logger		
AD-1688	Weighing data logger		
AD-1689	Tweezers for calibration mass		
AD-8127	Compact printer		
AD-8526	RS-232C/Ethernet (TCP/IP) converter		
AD-8527	Quick USB adapter		
AD-8920A	Remote display		
AD-8922A	Remote controller		
AX-MC1000PAN	Auto-centering pan (MC-1000)		
AX-MC6100PAN	Auto-centering pan (MC-6100)		
AX-MC10K/30KPAN	Auto-centering pan (MC-10K/30K)		
AX-SW128	Foot switch		
AX-USB-25P	RS-232C/USB converter		
* 9 Selectable from 1 mg to	20 kg.		

ole from 1 mg to 20 kg



Auto-centering pan



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