

# A&D Weighing Solutions

Balances / Scales / Peripheral Devices



**AND**  
A&D Company, Ltd.

Discover Precision

<http://www.aandd.jp>

# “Simple, Practical and of High Value...”

*Congratulations: You've just picked up the right brochure.*

*A&D Company, Limited, Japan's top manufacturer of electronic weighing instruments, is particularly proud of the unmatched width of our product portfolio, with innovations always aimed at providing users with high practical utility and high value for the price.*

*The fact is that no matter what industry you are in, whatever use you have in mind, or whatever solution you are looking for, you will likely find a product that precisely fits your requirements, within your budget!*

## Key Feature Index



### Calibration with Internal Weight

Enables you to ensure balance accuracy with just one key press



### Calibration with External Weight

Requires an external weight for calibration



### Super Hybrid Sensor/Compact Super Hybrid Sensor

Simultaneously achieves precision, speed and stability, as well as ease of maintenance



### Reverse-backlit Liquid Crystal Display

Provides a bright, high contrast that is extremely easy to read and less stressful on the eyes



### Vacuum Fluorescent Display

Provides clear and wide-angle visibility even in a dimly-lit area



### LED Display

Provides a wide viewing angle and colorful display, allowing quick, intuitive judgments



### Liquid Crystal Display with Backlight

Ensures visibility in a dimly-lit area



### Liquid Crystal Display

Provides a sharp-cut, energy-saving display



### Quick USB Interface

Transfers weighing data to a PC USB port (one way) requiring no special software installation



### LAN-Ethernet Interface (with WinCT-Plus software)

Enables acquiring data from and sending commands to multiple weighing instruments



### RS-232C Serial Interface

Outputs data to and receives commands from a PC, printer, data logger, etc.



### GLP/GMP/GCP/ISO Compliant Output

Outputs the manufacturer, model, serial number, ID number, space for signature, calibration records, etc., for documentation requirements



### Clock and Calendar Function

Adds time and date information to output data



### Data Memory Function

Stores weighing data, calibration results, unit masses, upper/lower limits, preset tares, etc., for easy recall or output



### Counting Function with Automatic Counting Accuracy Improvement

Displays the number of pieces based on their individual unit weight while automatically optimizing the accuracy of the unit weight



### Counting Function

Displays the number of pieces based on their individual unit weight



### Percentage Function

Displays the weight value as a percentage of a stored reference mass



### Animal Weighing (Hold) Function

Helps measure and record the weight of a moving object such as an animal by averaging fluctuation



### Statistical Calculation Function

Displays and outputs statistical calculation data including number of data, sum, max, min, range (max – min), mean, standard deviation and coefficient of variation



### Accumulation (M+) Function

Sums the weighing results and displays the total value



### Comparator Function

Compares weight values within set limits and makes pass/fail judgments



### Auto Power ON Function

Activates the weighing mode display automatically when plugged in



### Auto Power OFF Function

Turns off the display automatically after a period of inactivity to save power



### Underhook

Enables magnetic, hot, or contaminated materials to be hanged for weighing or for density measurements



### Rechargeable Battery Operation

Works with a built-in rechargeable battery unit



### Normal Battery Operation

Works with off-the-shelf battery cells



### Smart Range Function

Automatically switches between the precision and standard ranges, and recovers the full precision range with a press of the RE-ZERO (tare) key



### Universal Flexi Coms Function

Enables editing of serial data output format or printout format



### EC Type Approval

Includes models that are legal for trade in the member countries of the European Union



### IP69K Dust and Waterproof

Withstands heavy-duty washdown with high-pressure (8,000 to 10,000 kPa) and high-temperature (80 ± 5 °C) water from up close (100 to 150 mm)



### IP68 Dust and Waterproof

Permits no infiltration of water while immersed to a depth of 1 meter for 24 hours



### IP65 Dust and Waterproof

Permits no infiltration of dust and withstands water jetting from any direction



### NSF Compliant

Meets food protection and sanitation requirements as established by NSF International



### Software

Data management software available

## Abbreviations and Conversion Factors of Weighing Units

Abbreviation	Unit	Conversion factor (to gram)
g	Gram	1 g
mg	Milligram	0.001 g
kg	Kilogram	1000 g
oz	Ounce (avoir)	28.349523125 g
lb	Pound	453.59237 g
lb-oz	Pound-Ounce	1 lb = 16 oz 1 oz = 28.349523125 g
ozt	Troy ounce	31.1034768 g
ct	Metric carat	0.2 g
mom	Momme	3.75 g
dwt	Pennyweight	1.55517384 g
gr	Grain (UK)	0.06479891 g
tl	Tael (HK general, Singapore)	37.7994 g
	Tael (HK jewelry)	37.429 g
	Tael (Taiwan)	37.5 g
	Tael (China)	31.25 g
tol	Tola (India)	11.6638038 g
SG	Specific gravity	N/A
N	Newton	See below*

\* Newton = (weight in gram) × (9.80665 m/s<sup>2</sup>) / 1000

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(Capacity: 10 kg to 220 kg / Resolution: 0.001 g to 0.02 g)			

# BM Series



BM-22

**Optional**



- **Instant and smooth static elimination using a built-in fanless ionizer to ensure stable weighing**
- **Large working space for better operability and a wider range of applications**
- **Interlockable sliding doors allowing efficient operation with both hands**
- ✓ Anti-static glass breeze break with a thin evaporated metal coating
- ✓ Adjustable (manual or automatic) response characteristics to help cope with the effect of drafts and vibrations
- ✓ Automatic self calibration to maintain accuracy under temperature changes
- ✓ Embedded temperature, humidity and atmospheric pressure sensors
- ✓ Multiple weighing units: g, mg, oz, ozt, ct, mom, dwt, gr, SG (either tl or tol can be added upon request)
- ✓ Density determination function and an optional density determination kit (for BM-252/200/300/500 only)
- ✓ Comes equipped with the handy AD-1688 weighing data logger
- ✓ Expert assessment of the set-up environment using AND-MEET\* (please inquire at your local distributor for details) \* Patent pending

## Special pans/holder for the BM-20/22 (standard accessories)



**Aluminum analytical pans**  
ø8 mm (0.05 ml) / ø12 mm (0.3 ml) / ø15 mm (0.8 ml)



**Weighing pans for PM filters**  
ø50 mm / ø95 mm



**Microfuge tube holder**

Neutralizing chamber

Separation plate

Weighing Chamber



### Interlockable sliding door

Possible to slide a door open using the handle on the opposite side



### Pipette accuracy testing using an optional kit (BM-014)



Model	BM-20	BM-22	BM-252	BM-200	BM-300	BM-500
Capacity	22 g	5.1 g / 22 g	250 g	220 g	320 g	520 g
Resolution	0.001 mg	0.001 mg / 0.01 mg	0.01 mg	0.1 mg		
Repeatability (σ)	0.0025 mg (for 1 g)	0.004 mg (for 1 g) / 0.01 mg	0.03 mg (for 100 g)	0.1 mg	0.2 mg	
Linearity	±0.010 mg	±0.010 mg / ±0.02 mg	±0.10 mg	±0.2 mg	±0.3 mg	±0.5 mg
Weighing pan	ø25 mm			ø90 mm		

## Options & Accessories

AD-1653 Density determination kit (for BM-252/200/300/500 only)  
AD-1671 Anti-vibration table for balances *Strongly recommended!*  
AD-1672 Tabletop breeze break *Strongly recommended!*  
BM-08 Ethernet interface with WinCT-Plus software  
BM-014 Pipette accuracy testing kit  
BM-025 Foot switch

AX-BM-031 Display covers (5 pcs)  
AX-BM-032 Microfuge tube holder (for BM-20/22 only)  
AX-BM-NEEDLESET Electrode units for the ionizer  
AX-ROUND-PAN-L Round aluminum analytical pans (ø15 mm, 0.8 ml, 100 pcs)  
AX-ROUND-PAN-M Round aluminum analytical pans (ø12 mm, 0.3 ml, 100 pcs)  
AX-ROUND-PAN-S Round aluminum analytical pans (ø8 mm, 0.05 ml, 100 pcs)

## ***GH*** Series



### Optional



- ✓ Adjustable (manual or automatic) response characteristics to help cope with the effect of drafts and vibrations
- ✓ Automatic self calibration to maintain accuracy under temperature changes
- ✓ Anti-static glass breeze break with a thin evaporated metal coating
- ✓ Multiple weighing units: g, mg, oz, ozt, ct, mom, dwt, gr, SG (either tl or tol can be added upon request)
- ✓ Density determination function and an optional density determination kit

Model	GH-252	GH-202	GH-120	GH-200	GH-300
Capacity	101 g / 250 g	51 g / 220 g	120 g	220 g	320 g
Resolution	0.01 mg / 0.1 mg		0.1 mg		
Repeatability ( $\sigma$ )	0.03 mg / 0.1 mg	0.02 mg / 0.1 mg	0.1 mg		0.2 mg
Linearity	$\pm 0.1$ mg / $\pm 0.2$ mg	$\pm 0.03$ mg / $\pm 0.2$ mg	$\pm 0.2$ mg		$\pm 0.3$ mg
Weighing pan	$\varnothing 90$ mm				

### Options & Accessories

AD-1653 Density determination kit

GH-02 Quick USB interface with cable

GH-08 Ethernet interface with WinCT-Plus software

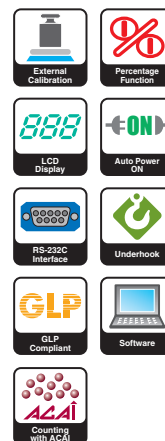
\* GH-02 and GH-08 cannot be used at the same time.

# HR-i Series



- ✓ Adjustable response characteristics to help cope with the effect of drafts and vibrations
- ✓ Anti-static glass breeze break with a thin evaporated metal coating
- ✓ Multiple weighing units: g, mg, oz, ozt, ct, mom, dwt, gr (either tl or tol can be added upon request)

Model	HR-202i	HR-300i
Capacity	51g / 220g	320 g
Resolution	0.01 mg / 0.1 mg	0.1 mg
Repeatability (σ)	0.02 mg / 0.1 mg	0.2 mg
Linearity	±0.03 mg / ±0.2 mg	±0.3 mg
Weighing pan	ø90 mm	



## Semi-Micro Analytical Balances

# GR Series

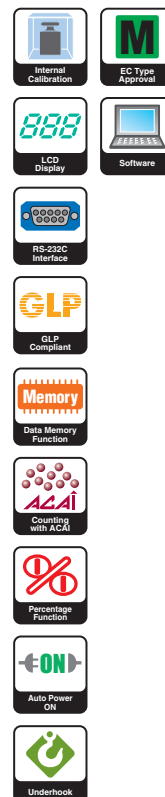


- ✓ Handy lever on the front to open either side of the weighing chamber for quick and efficient access
- ✓ Small footprint of 249 mm by 330 mm to save space
- ✓ Adjustable (manual or automatic) response characteristics to help cope with the effect of drafts and vibrations
- ✓ Automatic self calibration to maintain accuracy under temperature changes
- ✓ Anti-static glass breeze break with a thin evaporated metal coating
- ✓ Multiple weighing units: g, mg, oz, ozt, ct, mom, dwt, gr, SG (either tl or tol can be added upon request)
- ✓ Density determination function and an optional density determination kit



Open left or right side from front

Model	GR-202	GR-120	GR-200	GR-300
Capacity	42 g / 210 g	120 g	210 g	310 g
Resolution	0.01 mg / 0.1 mg	0.1 mg		
Repeatability (σ)	0.02 mg / 0.1 mg	0.1 mg	0.2 mg	
Linearity	±0.03 mg / ±0.2 mg	±0.2 mg		±0.3 mg
Weighing pan	ø85 mm			





# HR-AZ/HR-A Series



HR-AZ



HR-A



HR-AZ



HR-AZ



HR-A

- High-speed weighing with 2-second stabilization
- Removable, shatterproof breeze break with antistatic coating
- Compact foot print: 198 mm × 294 mm (smaller than an A4 sheet of paper)
- ✓ Rotary sliding doors requiring no extra space at the rear
- ✓ Adjustable response characteristics to help cope with the effect of drafts and vibrations
- ✓ Multiple weighing units: g, mg, oz, ozt, ct, mom, dwt, gr, SG, and a user-programmable unit for conversion applications (either tl, tol or N can be added upon request)
- ✓ Density determination function and an optional density determination kit
- ✓ Easily visible, front-mounted spirit level for adjusting the leveling feet

## Quickly removable breeze break

Allows fast, simple cleaning of the balance and use in confined spaces like glove boxes. The non-glass breeze break also makes the balance suitable for use in food/drug-related production lines.



### Optional



## Rotary sliding doors

The balance requires no extra space at the rear in order to access the weighing chamber, as the doors simply rotate behind the balance.



## Density determination kit (AD-1654)

Using this kit, it is easy to calculate the density of a solid or liquid substance in density mode.



Model	HR-100AZ HR-100A	HR-150AZ HR-150A	HR-250AZ HR-250A	HR-251AZ HR-251A
Capacity	102 g	152 g	252 g	62 g / 252 g
Resolution	0.1 mg			0.1 mg / 1 mg
Repeatability (σ)	0.1 mg		0 to 200 g: 0.1 mg 200 to 252 g: 0.2 mg	0.1 mg / 0.5 mg
Linearity	±0.2 mg		±0.3 mg	±0.3 mg / ±1 mg
Weighing pan	ø90 mm			

## Options & Accessories

- AD-1654 Density determination kit
- FXi-02 Quick USB interface with cable
- FXi-08 Ethernet interface with WinCT-Plus software
- FXi-09 Built-in rechargeable battery

- FXi-10 Small breeze break
- FXi-11 Large breeze break
- AX-FXi-31 Display covers (5 pcs)
- ★ FXi-02, FXi-08 and FXi-09 cannot be used at the same time.

# MS-70/MX-50 MF-50/ML-50



MS-70



MX-50

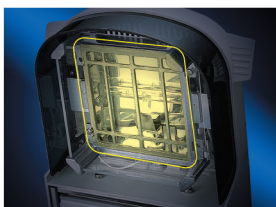


MF-50



ML-50

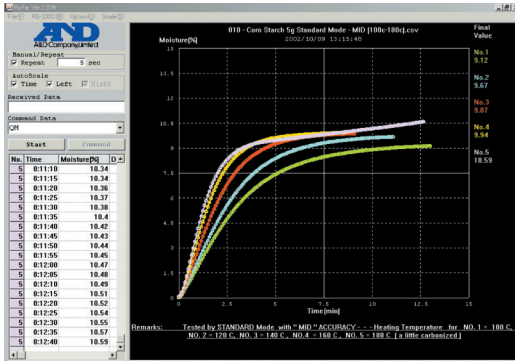
- **Low moisture content measurement at 10 ppm (0.001%) resolution (MS-70)**
- **Fast and uniform heating with halogen lamp and innovative Secondary Radiation Assist (SRA) technology**
- **Accuracy verification with Sodium Tartrate Dihydrate (standard with MS-70, MX-50, and MF-50)**
- ✓ Calibration function for heating temperature (for MS-70 and MX-50 only)
- ✓ Five different measurement programs
- ✓ Selectable heating patterns
- ✓ Translucent window enabling progress check
- ✓ Memory function for measurement conditions
- ✓ Quick reference card provided



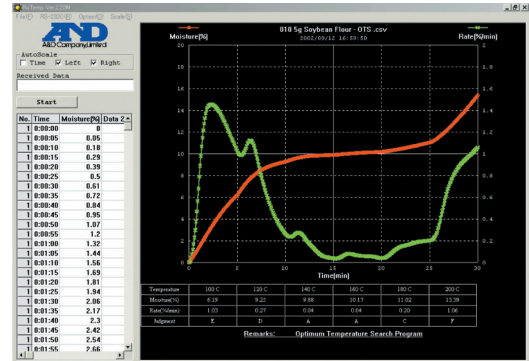
## Secondary Radiation Assist (SRA)

The thermally conductive glass spreads the heat evenly over the sample, realizing more efficient and accurate measurement. It also protects the halogen lamp from soiling from the volatile components of samples.

# Special Software “WinCT-Moisture” (Standard with MS-70 and MX-50)



RsFig (Corn starch)



RsTemp (Soybean flour)

- Displays moisture rate changes over time in a graph (RsFig)
- Quickly and automatically suggests the most suitable heating conditions for first-time samples (RsTemp)
- ✓ Calculates measurement data statistics
- ✓ Saves the recorded data in CSV format
- ✓ Detects other changes to the sample material in addition to moisture rate
- ✓ Includes sample data summary

Model	MS-70	MX-50	MF-50	ML-50	
Measurement method	400 W straight halogen lamp heating system with SRA filter and SHS weighing technology				
Maximum sample weight capacity	71 g	51 g			
Min. display	Moisture content	0.001% / 0.01% / 0.1%	0.01% / 0.1%	0.05% / 0.1% / 1%	
	Weight	0.0001 g	0.001 g	0.002 g	0.005 g
Repeatability (σ)	Moisture content (over 1 g)	0.05%	0.1%	0.2%	0.5%
	Moisture content (over 5 g)	0.01%	0.02%	0.05%	0.1%
	Weight	0.0005 g	0.001 g	0.002 g	0.005 g
Drying temperature	30 to 200 °C		50 to 200 °C		
Measurement unit	Wet base / Dry base / Dry content / Ratio / Weight				
Sample pan size	ø85 mm				

## Options & Accessories

AX-MX-30	Disposable aluminum pan (100 pcs)	AX-MX-38	Display cover (2 pcs)
AX-MX-31	Sample pan (100 pcs)	AX-MX-39	Dust cover
AX-MX-32-1	Filtration glass fiber sheet (100 sheets)	AX-MX-40	RS-232C cable (25P-9P, 2 m)
AX-MX-32-2	Glass fiber sheet (100 sheets)	AX-MX-41	Calibration weight (20 g)
AX-MX-33	Sodium Tartrate Dihydrate (30 g × 12 pcs)	AX-MX-42	WinCT-Moisture
AX-MX-34-120V	Halogen lamp (AC 100 to 120 V)	AX-MX-43	Temperature calibrator (for MS-70 and MX-50 only)
AX-MX-34-240V	Halogen lamp (AC 200 to 240 V)	AX-USB-25P	Serial/USB converter
AX-MX-35	Pan handle (2 pcs)		
AX-MX-36	Tweezers (2 pairs)		
AX-MX-37	Spoon (2 pcs)		

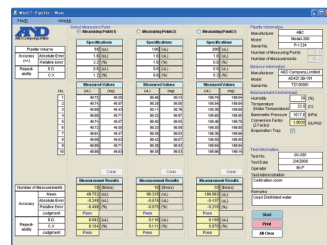


# AD-4212B-PT AD-4212A-PT FX-300i-PT



AD-4212B-PT

\* Pipette is not included.



WinCT-Pipette

- ✓ Automatic mass-to-volume conversion and accuracy judgment using the special “WinCT-Pipette” software
- ✓ Judgment by your preferred criteria – manufacturer specifications, ISO8655, or your own
- ✓ Evaporation trap to minimize errors due to evaporation
- ✓ Portable carrying case for testing easily on-site\*
- ✓ Printing function for GLP documentation requirements, etc.

\* Not advisable with 0.001 mg resolution

Model	AD-4212B-PT	AD-4212A-PT	FX-300i-PT
Capacity	5.1 g / 31 g / 110 g*	110 g	320 g
Resolution	0.001 mg / 0.01 mg / 0.1 mg	0.1 mg	1 mg
Repeatability (σ)	0.015 mg / 0.05 mg / 0.1 mg	0.15 mg	1 mg
Linearity	±0.05 mg / ±0.05 mg / ±0.2 mg	±0.3 mg	±2 mg

\* Smart range

## Leak Tester

# AD-1690



\* Pipette is not included.

- ✓ Takes only 5 seconds to determine if a pipette has a leak
- ✓ Leak detection by depressurization (-20kPa ±20%) ensuring no contamination (e.g. dust) enters the pipette being tested
- ✓ RS-232C interface to output data to a PC, etc.

### Options & Accessories

- AD-1690-01 Replacement tube set (adapter × 1, attachment × 4)
- AD-1690-02 Replacement filter set (filter unit × 1, filter element × 10)
- AD-1690-015 Carrying case



# GX/GF Series



GX



GF

- GX Internal Calibration
- GF External Calibration
- SHS Super Hybrid Sensor
- VFD Display
- RS-232C Interface
- GLP Compliant
- GX Clock & Calendar
- Memory Data Memory Function
- ACAI Counting with ACAI
- Percentage Function
- Animal Weighing
- Comparator Function
- ON Auto Power ON
- OFF Auto Power OFF
- Underhook
- GX M EC Type Approval
- Software
- Quick USB

- ✓ High-speed weighing with 1-second stabilization
- ✓ Adjustable response characteristics to help cope with the effect of drafts and vibrations (GX: manual or automatic / GF: manual only)
- ✓ Automatic self calibration to maintain accuracy under temperature changes (GX)
- ✓ Multiple weighing units: g, oz, lb, lb-oz, ozt, ct, mom, dwt, gr, SG, and a user-programmable unit for conversion applications (either tl, tol or N can be added upon request)
- ✓ Density determination function (an optional density determination kit is available for the models with 0.001 g resolution)
- ✓ Quick reference card provided

Model	GX-200 GF-200	GF-300	GX-400 GF-400	GX-600 GF-600	GX-800 GF-800	GX-1000 GF-1000
Capacity	210 g	310 g	410 g	610 g	810 g	1100 g
Resolution	0.001 g					
Weighing pan	128 × 128 mm					

Model	GF-1200	GX-2000 GF-2000	GF-3000	GX-4000 GF-4000	GX-6100 GF-6100	GX-6000 GF-6000	GX-8000 GF-8000
Capacity	1210 g	2100 g	3100 g	4100 g	6100 g	6100 g	8100 g
Resolution	0.01 g					0.1 g	
Weighing pan	165 × 165 mm						

## Options & Accessories

- GX-02 Quick USB interface with cable
- GX-04 Comparator output with a buzzer/RS-232C/Current loop output
- GX-06 Analog output/Current loop output
- GX-10 Glass breeze break for the pan size of 128 mm × 128 mm
- ★ Only one of GX-02, GX-04, GX-06 or the standard RS-232C interface can be used.
- ★★ GX-04 and GX-06 are factory-installed options.

- GX-11 Glass breeze break for the pan size of 165 mm × 165 mm
- GX-12 Animal weighing pan (not available for GX/GF-200)
- GX-13 Density determination kit (for the pan size of 128 mm × 128 mm only)

Optional

# FZ-i/FX-i Series



FZ-i



FX-i



FZ-i



FZ-i



## Optional



FZ-i



FX-i

- ✓ High-speed weighing with 1-second stabilization
- ✓ Compact foot print: 198 mm × 294 mm (smaller than an A4 sheet of paper)
- ✓ Protection mechanism against vertical and transverse overloading
- ✓ Adjustable response characteristics to help cope with the effect of drafts and vibrations
- ✓ Multiple weighing units: g, oz, lb, lb-oz, ozt, ct, mom, dwt, gr, and a user-programmable unit for conversion applications (either tl, tol or N can be added upon request)

Model	FZ-120i FX-120i	FZ-200i FX-200i	FZ-300i FX-300i	FZ-500i FX-500i	FZ-1200i FX-1200i	FZ-2000i FX-2000i	FZ-3000i FX-3000i	FZ-5000i FX-5000i
Capacity	122 g	220 g	320 g	520 g	1220 g	2200 g	3200 g	5200 g
Resolution	0.001 g				0.01 g			
Weighing pan	ø130 mm				ø150 mm			

## Options & Accessories

- FXi-02 Quick USB interface with cable
- FXi-08 Ethernet interface with WinCT-Plus software
- FXi-09 Built-in rechargeable battery
- FXi-10 Small breeze break
- FXi-11 Large breeze break
- FXi-12 Animal weighing pan (for FZ/X-1200i/2000i/3000i/5000i only)
- FXi-15 Carrying case
- AX-FXi-31 Main unit cover (5 pcs)

★ FX-02, FXi-08 and FXi-09 cannot be used at the same time.

# FZ-iWP/FX-iWP Series



FZ-iWP



FX-iWP

- ✓ High-speed weighing with 1-second stabilization
- ✓ Compact foot print: 198 mm × 294 mm (smaller than an A4 sheet of paper)
- ✓ Protection mechanism against vertical and transverse overloading
- ✓ Adjustable response characteristics to help cope with the effect of drafts and vibrations
- ✓ Multiple weighing units: g, oz, lb, lb-oz, ozt, ct, mom, dwt, gr, and a user-programmable unit for conversion applications (either tl, tol or N can be added upon request)



FZ-iWP



FX-iWP



FZ-iWP



## Optional



FZ-iWP



Model	FZ-120iWP FX-120iWP	FZ-200iWP FX-200iWP	FZ-300iWP FX-300iWP	FZ-1200iWP FX-1200iWP	FZ-2000iWP FX-2000iWP	FZ-3000iWP FX-3000iWP
Capacity	122 g	220 g	320 g	1220 g	2200 g	3200 g
Resolution	0.001 g			0.01 g		
Weighing pan	ø130 mm			ø150 mm		

## Options & Accessories

- FXi-02 Quick USB interface with cable
- FXi-08 Ethernet interface with WinCT-Plus software
- FXi-09 Built-in rechargeable battery
- FXi-WP-10 Small breeze break
- FXi-WP-11 Large breeze break
- FXi-12 Animal weighing pan (for FZ/X-1200iWP/2000iWP/3000iWP only)
- FXi-15 Carrying case
- AX-FXi-31 Main unit cover (5 pcs)
- AX-KO2737-500 Waterproof RS-232C cable (5 m)

\* FXi-02, FXi-08 and FXi-09 cannot be used at the same time.  
 \*\* FZ-iWP/FX-iWP series are not IP65 compliant with FXi-02, FXi-08 or FXi-09.

# EK-i/EW-i Series



**Optional**



For capacity of 4000 g or larger



EK-i



EW-i

- ✓ Hygienic and chemically resistant stainless steel (SUS304) weighing pan
- ✓ Adjustable response characteristics to help cope with the effect of drafts and vibrations
- ✓ Multiple weighing units: g, oz, lb, ozt, ct, mom, dwt, gr (either tl, tol or N can be added upon request)
- ✓ Security ring to prevent theft

Model	EK-120i	EK-200i	EK-300i	EK-410i	EK-610i
Capacity	120 g	200 g	300 g	400 g	600 g
Resolution	0.01 g				
Weighing pan	ø110 mm				

Model	EK-600i	EK-1200i	EK-2000i	EK-3000i	EK-4100i	EK-6100i
Capacity	600 g	1200 g	2000 g	3000 g	4000 g	6000 g
Resolution	0.1 g					
Weighing pan	170 × 133 mm					

Model	EK-6000i	EK-12Ki	EW-150i		
Capacity	6000 g	12000 g	30 g	60 g	150 g
Resolution	1 g		0.01 g	0.02 g	0.05 g
Weighing pan	170 × 133 mm		ø110 mm		

Model	EW-1500i			EW-12Ki		
Capacity	300 g	600 g	1500 g	3000 g	6000 g	12000 g
Resolution	0.1 g	0.2 g	0.5 g	1 g	2 g	5 g
Weighing pan	170 × 133 mm					

## Options & Accessories

- EKW-04i Comparator relay output
- EKW-07i Underhook (for EK-4100i/6000i/6100i/12Ki, EW-12Ki only)
- EKW-09i Rechargeable battery pack (Ni-MH)
- EJ-12 Carrying case
- AX-3005824-5S Protective cover (5 pcs)

★ EKW-04i and EKW-09i cannot be used at the same time.



# GX-K/GF-K Series



GX-K



GF-K

- GX-K
- 
- GX-K
- GX-K
- GF-K
- 
- 
- 
- 
- GX-K
- 
- 
- 
- 
- 
- 
- 
- 
- GX/GF-8K2  
GX/GF-32K
- 

- ✓ Adjustable response characteristics to help cope with the effect of drafts and vibrations (GX-K: manual or automatic / GF-K: manual only)
- ✓ Automatic self calibration to maintain accuracy under temperature changes (GX-K)
- ✓ Multiple weighing units: g, kg, oz, lb, lb-oz, ozt, ct, mom, dwt, gr\*, SG, and a user-programmable unit for conversion applications (either tl, tol or N can be added upon request)
- ✓ Density determination function
- ✓ Quick reference card provided

\*gr not available with the GX-32K/GF-32K.

## IP65 dust and waterproof



Model	GX-8K GF-8K	GX-8K2 GF-8K2	GX-10K GF-10K	GX-12K GF-12K	GX-20K GF-20K	GX-30K GF-30K	GX-32K GF-32K
Capacity	8.1 kg	2.1 kg / 8.1 kg	10.1 kg	12 kg	21 kg	31 kg	6.1 kg / 31 kg
Resolution	0.01 g	0.01 g / 0.1 g	0.01 g		0.1 g		0.1 g / 1 g
Weighing pan	270 × 210 mm						

## Options & Accessories

- GX-04K Comparator output with a buzzer/RS-232C/Current loop output
- GX-06K Analog output/Current loop output
- GX-07K Waterproof RS-232C cable (25P-9P, 5 m)
- GXX-012 Animal weighing pan
- GXX-015 Carrying case
- AX-GXX-31 Breeze Break for GX-K/GF-K

\* Only one of GX-04K, GX-06K or the standard RS-232C can be used.  
 \*\* GX-K/GF-K series are not IP65 compliant with GX-04K or GX-06K.



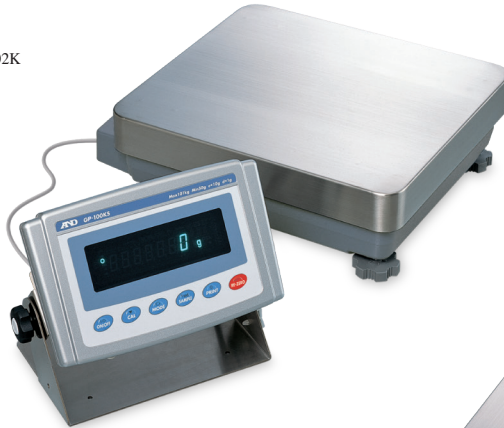
## GP Series



GP-32K/32KS/102K

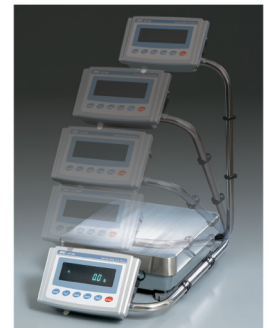


### Optional



- ✓ Adjustable swing arm display (models with detached display stand also available)
- ✓ Adjustable (manual or automatic) response characteristics to help cope with the effect of drafts and vibrations
- ✓ Automatic self calibration to maintain accuracy under temperature changes
- ✓ Multiple weighing units: g\*, kg, oz, lb, lb-oz, ozt, ct\*, mom\*, dwt, SG, and a user-programmable unit for conversion applications (either tl, or tol can be added upon request)
- ✓ Density determination function

\* g, ct, mom not available with the GP-102K.



Swing arm display

Model	GP-12K	GP-20K	GP-30K GP-30KS	GP-32K GP-32KS	GP-40K	GP-61K GP-61KS	GP-60K GP-60KS	GP-100K GP-100KS	GP-102K
Capacity	12 kg	21 kg	31 kg	6.1 kg / 31kg	41 kg	61 kg	61 kg	101 kg	61 kg / 101 kg
Resolution	0.1 g			0.1 g / 1 g	0.5 g	0.1 g	1 g	1 g / 10 g	
Weighing pan	384 × 344 mm							386 × 346 mm	

### Options & Accessories

GP-04 Comparator output with a buzzer/RS-232C Current loop output

GP-06 Analog output/Current loop output

GP-07 5-meter extension cable (for GP-30KS/32KS/61KS/60KS/100KS)

GP-12 Animal weighing pan

GP-20 Underhook (for GP-12K/20K/30K/30KS/32K/32KS/40K)

GP-21 Underhook (for GP-60K/60KS/61K/61KS/100K/100KS/102K)

GP-22 AD-8121B printer support

\* Only one of GP-04, GP-06 or the standard RS-232C can be used.

\*\* GP-07 is a factory-installed option.

## MC Series



MC-6100



MC-10K

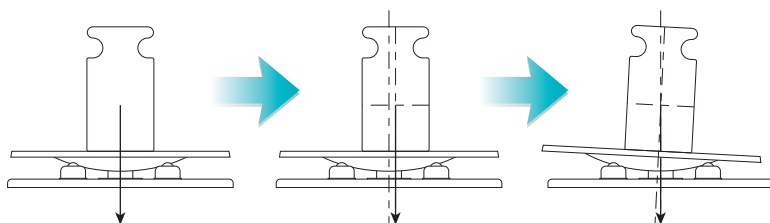


MC-100KS

- ✓ Stabilizing filter to minimize errors due to drafts or vibrations
- ✓ Extra decimal place that also makes it possible to monitor fine weight changes with heavy tare weights
- ✓ Multiple weighing units: g, kg\*, oz, ozt, ct, mom, dwt, gr, SG, and a user-programmable unit for conversion applications (either tl or \* kg for MC-100KS only tol can be added upon request)
- ✓ Quick reference card provided

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

The auto-centering pan realizes mass comparison with higher accuracy by correcting eccentric loadings.



Model	MC-1000	MC-6100	MC-10K	MC-30K	MC-100KS
Capacity	1100 g	6100 g	10.1 kg	31 kg	101 kg
Resolution	0.0001 g	0.001 g		0.01 g	0.1 g
Repeatability (a)*	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
Weighing pan	128 × 128 mm	165 × 165 mm	270 × 210 mm		386 × 346 mm

\* Repeatability when the auto-centering pan or an automatic loading machine is used under good ambient conditions.

### Options & Accessories

- AX-MC1000PAN Auto-centering pan (for MC-1000)
- AX-MC6100PAN Auto-centering pan (for MC-6100)
- AX-MC10K/30KPAN Auto-centering pan (for MC-10K/30K)

\* Please refer to the GX, GX-K and GP series for options for MC-1000/6100, MC10K/30K and MC-100KS respectively.

MC-10K  
/30K  
/100KS



MC-10K  
/30K  
/100KS



Optional for  
MC-100KS



Optional  
MC-1000/6100



# AD-4212A AD-4212B Series



AD-4212A



AD-4212B



AD-4212A



AD-4212A



AD-4212B-101



- ✓ Protection mechanism against vertical and transverse overloading due to actuator malfunctions, etc.
- ✓ Adjustable response characteristics to help cope with the effect of drafts and vibrations
- ✓ Multiple weighing units\*: g, mg, oz, ozt, ct, mom, dwt, gr, (either tl or tol can be added upon request)
- ✓ Automatic zero display after data output
- ✓ Wall/panel-mountable display unit
- ✓ Possible to create your own weighing pan
- ✓ Comparator contact output with buzzer (AD-4212A: 3 level / AD-4212B: 3 or 5 level)
- ✓ Chemically resistant stainless steel\*\* sensor unit (AD-4212B)
- ✓ Comes with a free calibration weight (OIML Class E2 equivalent)

\* A user programmable unit is also available with the AD-4212A series  
 \*\* SUS304 for the body and SUS316 for the weighing pan

Model	AD-4212A-100	AD-4212A-200	AD-4212A-600	AD-4212A-1000
Capacity	110 g	210 g	610 g	1100 g
Resolution	0.1 mg		1 mg	
Stabilization time (approx.)*	0-30 g: 1.1 sec 30-110 g: 1.3 sec	0-30 g: 0.8 sec 30-210 g: 1.0 sec	0-30 g: 0.9 sec 30-610 g: 1.1 sec	0-30 g: 0.9 sec 30-1100 g: 1.1 sec
Weighing pan	50 x 50 mm		70 x 70 mm	

Model	AD-4212B-23	AD-4212B-101	AD-4212B-102	AD-4212B-201	AD-4212B-301
Capacity	21 g	31 g / 110 g	110 g	210 g	310 g
Resolution	0.001 mg	0.01 mg / 0.1 mg	0.01 mg	0.1 mg	
Stabilization time (approx.)*	12 sec	4.0 sec / 2.5 sec	4.0 sec	2.5 sec	
Weighing pan	ø34 mm			50 x 50 mm	

\* When set to FAST in a good weighing environment

## Optional



## Options & Accessories

- AD-4212A-01 BCD output / external contact input
- AD-4212A-04 5-level comparator contact output (for AD-4212A)
- AD-4212A-07 Extension cable (3 m)
- AD-4212A-08 Ethernet interface with WinCT-Plus software

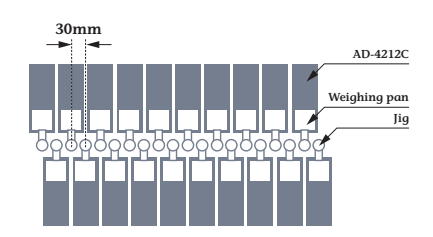
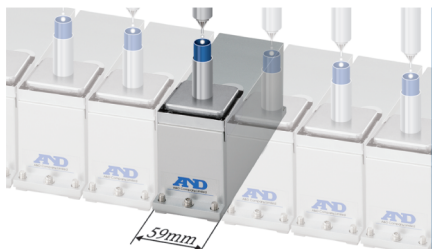
- AD-4212A-19 Stainless steel breeze break (comes as standard with AD-4212A-100 and all AD-4212B models)
- AD-4212A-20 Metal leveling foot

\* Only one of AD-4212A-01, AD-4212A-04, AD-4212A-08, or the standard interface can be used.

\* The EM-DLC is a high precision electromagnetic weighing sensor with an integrated analog-to-digital converter

# AD-4212C Series

## Installation images



AD-4212C-301  
/3100

- ✓ Direct digital data output to a panel computer, PLC, or PC via RS-232C
- ✓ High-speed data transmission of up to 50 times/second
- ✓ IP65 dust and waterproof construction
- ✓ Protection mechanism against vertical and transverse overloading due to actuator malfunctions, etc.
- ✓ Removable leveling feet for direct attachment on the mounting base
- ✓ Free WinCT-AD4212C software for easy calibration and response setting
- ✓ Comes with a free calibration weight (OIML Class E2 equivalent)
- ✓ CC-Link connection to a PLC through the optional AD-8923-CC remote controller (AD-8923-BCD for BCD output is also available)

## AD-8923-CC (sold separately)

Possible to receive power directly from the connected AD-4212C (and vice versa)



Model	AD-4212C-301	AD-4212C-300	AD-4212C-600	AD-4212C-3100	AD-4212C-3000	AD-4212C-6000
Capacity	51 g / 320 g	320 g	620 g	510 g / 3200 g	3200 g	6200 g
Resolution	0.0001 g / 0.001 g	0.001 g		0.001 g / 0.01 g	0.01 g	
Stabilization time (approx.)*	d = 0.0001 g: 1.3 sec d = 0.001 g: 1.0 sec	0 - 30 g: 0.5 sec 30 - 320 g: 1.0 sec	0 - 30 g: 0.5 sec 30 - 620 g: 1.0 sec	d = 0.001 g: 1.3 sec d = 0.01 g: 1.0 sec	0 - 300 g: 0.5 sec 300 - 3200 g: 1.0 sec	0 - 300 g: 0.5 sec 300 - 6200 g: 1.0 sec
Weighing pan	50 × 50 mm					

\* When set to FAST in a good weighing environment

## Options & Accessories

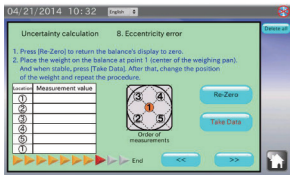
AD-8923-BCD Remote controller (BCD)  
AD-8923-CC Remote controller (CC-Link)



## AD-1691



- ✓ Supports daily and periodic checks of balance quality and performance
- ✓ Calculates on the spot the expanded uncertainty of calibration based on seven uncertainty components
- ✓ Determines the minimum weight at the actual location of measurement in accordance with United States Pharmacopeia (USP) standards
- ✓ Equipped with the A&D Measurement Environment Evaluation Tool (AND-MEET)\* to help improve balance repeatability
- ✓ Quickly outputs the results in report format
- ✓ Can be used as a separate touch-panel display for an A&D balance



Eccentricity error test



Remote control

\* Patent pending

## AD-1687



- ✓ Simultaneously records environmental (temperature, humidity, barometric pressure, and vibration) and weighing data with time and date
- ✓ Large memory capacity of 10,000 data sets
- ✓ Instant data saving to a PC requiring no special software
- ✓ No battery required when connected to either a balance/scale or PC
- ✓ Trend graph mode to display chronological changes in graph format
- ✓ Interval time setting for environmental data recording
- ✓ Portable size of 127 × 90 × 36 mm (including the protective cover)
- ✓ IP65 dust and waterproof (with the protective cover on)

Sensor	Resolution	Measurement range	Accuracy
Temperature	0.1 °C	0 to 60 °C	±0.5 °C (20 to 30 °C)
	0.1 °F	32 to 140 °F	±0.9 °F (68 to 86 °F)
Humidity	0.1% RH	0 to 100% RH	±3% (20 to 80%)
Barometric pressure	0.1 hPa	500 to 1100 hPa	±4 hPa (0 to 50 °C)
Vibration	1 Gal	0 to 2000 Gal	±20 %, static acceleration



# AD-1688



- ✓ Stores up to 5,000 weighing results, including time and date added by its internal clock and calendar
- ✓ Dual interface – RS-232C to an A&D balance/scale and USB to a PC
- ✓ Highly portable, pocket size of 55 × 103 × 16.5 mm
- ✓ IP65 dust and waterproof (with the casing cover on)
- ✓ Receives power supply directly from the balance/scale or PC, requiring no battery



## Quick USB Adapter

# AD-8527



- ✓ Enables plug-and-play, real-time transmission of weighing data from an A&D balance/scale RS-232C interface to a PC USB port
- ✓ Internal clock and calendar to add time and date to the weighing results
- ✓ Highly portable, pocket size of 55 × 103 × 16.5 mm
- ✓ IP65 dust and waterproof (with the casing cover on)
- ✓ Receives power supply directly from the balance/scale or PC, requiring no battery

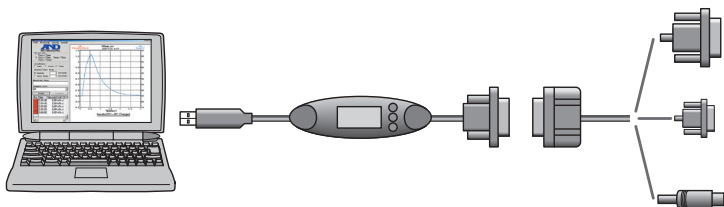
## Compact Printer

# AD-8127



- ✓ Easy setting and operation with a numeric keypad and LCD display
- ✓ Built-in calendar and clock for printing date and time at any time
- ✓ Sends re-zero and weighing data request commands to the balance/scale
- ✓ Clear and visible dot matrix printing, which also enables long-term preservation of the printed records
- ✓ Dust-free paper (AX-PP173-S) available for use in clean rooms

# AX-USB-25P/9P/DIN



- ✓ Converts the RS-232C output from a balance/scale and sends it to a PC USB port
- ✓ Enables you to send commands from a PC to a balance/scale, receive GLP outputs, etc. via USB

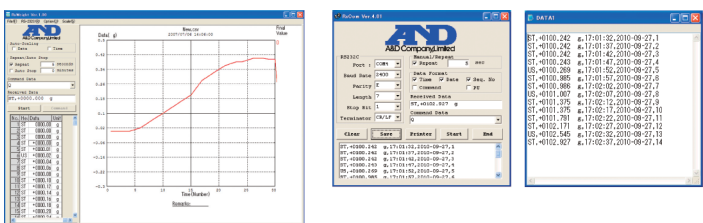
\* Please select either D-Sub 25 pin, D-Sub 9 pin, or DIN depending on your balance/scale.

# AD-8526



- ✓ Converts the RS-232C output from a balance/scale and sends it to Ethernet
- ✓ Realizes communication between a PC and multiple balances/scales when used with an Ethernet hub
- ✓ Comes with the WinCT-Plus software on CD-ROM (also downloadable from the A&D website)

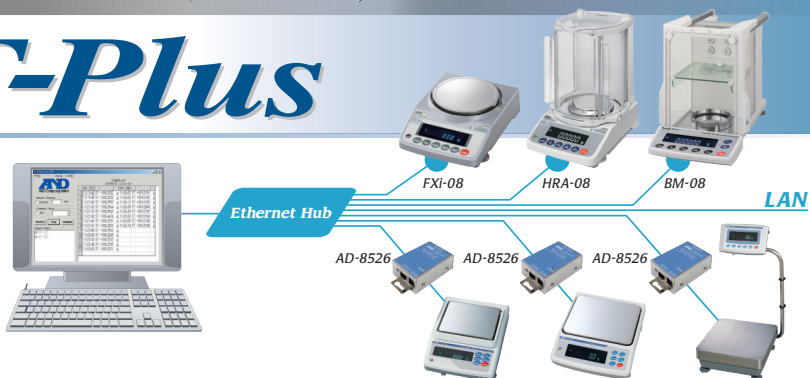
# WinCT



- ✓ Receives data in a text file format from a balance/scale, plots graphs, and/or allows exporting data directly to another application (e.g. Microsoft Excel) on a PC
- ✓ Sends commands to control a balance/scale

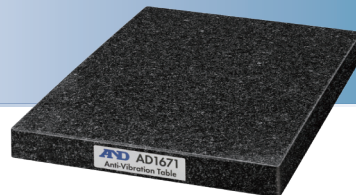
# WinCT-Plus

- ✓ Sends commands for controlling and acquiring data from multiple balances/scales



# AD-1671

- ✓ Isolates a highly sensitive analytical balance from minute vibrations that seriously affect the stability of weighing
- ✓ Fits nicely inside the AD-1672 tabletop breeze break for the BM series of micro analytical balances



Max. loading capacity	Approx. 40 kg
Material	Natural granite
Dimensions	460 (W) × 400 (D) × 71 (H) mm
Weight	Approx. 27 kg

## Tabletop Breeze Break

# AD-1672

- ✓ Shields a highly sensitive analytical balance from breezes and minute temperature changes caused by air conditioning, people passing by, or operators themselves
- ✓ Consists of antistatic plastic panels to minimize the effect of static electricity on the balance



Material	Transparent panel: Antistatic vinyl chloride Frame: Aluminum
Dimensions	680 (W) × 600 (D) × 720 (H) mm
Weight	Approx. 10 kg

## Remote Display

# AD-8920A

- ✓ Displays weighing results to others away from the balance/scale (over the counter, etc.)
- ✓ Receives power supply directly from the balance/scale



Dimensions	128 (W) × 102 (D) × 76 (H) mm
Communication cable	Approx. 1 m (optional 5 or 10-meter extension cable available)

## Remote Controller

# AD-8922A

- ✓ Remotely controls a balance/scale with key operations
- ✓ Also outputs weighing data to another external device such as a PC or printer via RS-232C connection



Dimensions	238 (W) × 132 (D) × 170 (H) mm
Communication cable	Approx. 2 m

### Options & Accessories

- |             |                   |             |                    |
|-------------|-------------------|-------------|--------------------|
| AD-8922A-01 | BCD output        | AD-8922A-05 | Current loop input |
| AD-8922A-04 | Comparator output | AD-8922A-06 | Analog output      |

## Rechargeable Battery Unit

# AD-1682

- ✓ Enables use of a balance/scale in the field without AC power
- ✓ Also gives you peace of mind when stable power supply is not guaranteed

Applicable product	Duration of continuous operation (typical)
GX-K/GF-K, GP	6 hours
BM	7 hours
GH, GX/GF, GR, MC, HR-i, AD-1690	8 hours

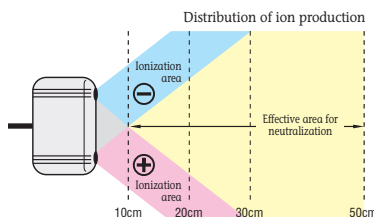


Battery type	Nickel-Metal-Hydrate (Ni-MH)
Charging time	Approx. 15 hours
Dimensions	96 (W) × 140 (D) × 58 (H) mm

## Static Eliminator

# AD-1683

- ✓ Instantly neutralizes charged objects to ensure stable weighing
- ✓ Adopts the direct-current (DC) method, which causes no breeze and is therefore ideal for fine powders
- ✓ Long life of approx. 10,000 hours
- ✓ Compact size of 112 (W) × 92 (D) × 60 (D) mm for use on either a desktop or production line



## Electrostatic Field Meter

# AD-1684

- ✓ Detects the presence of static electricity, which is often the cause of unstable weighing
- ✓ Compact (123 × 73 × 25 mm) and lightweight (approx. 170 g)



## Density Determination Kit for Analytical Balances

# AD-1653

- ✓ Makes it easy to calculate the density of either a solid or liquid substance
- ✓ Fits the BM-252/200/300/500, GH series and GR series\*

\* Please use the AD-1654 for the HR-AZ/HR-A series.

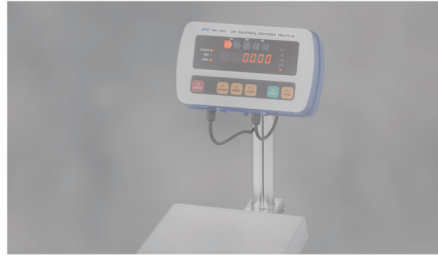




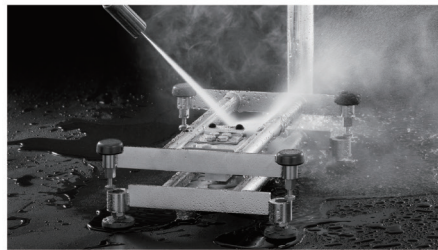
## SW Series



High pressure, high temperature washdown



Withstands extremely damp environments



Stainless steel frame and load cell

- ✓ Ultimate protection against the effects of condensation as well as water\*
- ✓ Streamlined construction for easy cleaning of food-processing residues
- ✓ Stainless steel weighing pan, frame and load cell\*\*
- ✓ Rugged and adjustable (0°, 30°, 60° or 90°) indicator bracket
- ✓ Touch sensitive capacitive keys to prevent damage from sharp objects
- ✓ Auto-tare function to facilitate consecutive check weighing
- ✓ Three sizes of base units, which are also available separately
- ✓ Pole stand attachable to either the short or long side of the platform



### The display unit as an IP69K indicator (SW-D)

You can purchase the SW display unit (SW-D) separately and use it as an IP69K (as well as IP68) indicator with platforms (load cells) other than A&D's.

\* Both IP69K and IP68 compliant

\*\* Weighing pan and frame = SUS304 Load cell = SUS630



#### Optional



Model	SW-6KS	SW-15KS	SW-15KM	SW-30KM	SW-60KM	SW-150KM	SW-60KL	SW-150KL
Capacity	6 kg	15 kg	15 kg	30 kg	60 kg	150 kg	60 kg	150 kg
Resolution (switchable)	0.002 kg	0.005 kg	0.005 kg	0.01 kg	0.02 kg	0.05 kg	0.02 kg	0.05 kg
	0.001 kg	0.002 kg	0.002 kg	0.005 kg	0.01 kg	0.02 kg	0.01 kg	0.02 kg
	0.0005 kg	0.001 kg	0.001 kg	0.002 kg	0.005 kg	0.01 kg	0.005 kg	0.01 kg
Weighing pan	250 x 250 mm			300 x 380 mm			390 x 530 mm	

✦ g, oz, lb and lb-oz also available (g not available for SW-60K/150K)

### Options & Accessories

HC-02i Sealed lead acid rechargeable battery (6 V, 4 Ah)

SW-04 RS-422/485 interface

SW-10 Long pole stand

SW-03 RS-232C + comparator relay output

SW-09 Short pole stand (for SW-6KS/15KS only)

SW-11 Desktop/wall-mount stand

\* SW-03 and SW-04 cannot be used at the same time. \*\* SW series is not IP69K compliant with SW-03 or SW-04.



# SC/SE Series

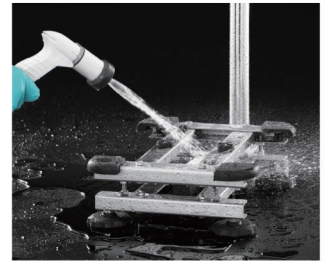
-  IP68
-  External Calibration
-  LCD Display
-  Counting Function
-  Comparator Function
-  Auto Power Off
-  Normal Battery
-  EC Type Approval
-  Software

**Optional**

-  Quick USB
-  RS-232C interface



**Easy cleaning**



**Washdown construction**

- ✓ Submersible and fit for extremely wet work environments
- ✓ 5,000 hours of continuous operation with 6 D alkaline batteries
- ✓ High-speed weighing with 1-second stabilization
- ✓ Supersized LCD display with 39 mm character height
- ✓ Stainless steel weighing pan (SC: SUS304 / SE: SUS430)
- ✓ Waterproof and corrosion-resistant load cell\*
- ✓ Battery life indicator

\* Aluminum anodized and coated with epoxy resin with protective silicon over wiring



**SC: stainless steel (SUS304) frame and column**



**SE: steel frame and column**



**Easily removable battery unit**

Model	SC-30KAM SE-30KAM	SC-60KAM SE-60KAM	SC-150KAM SE-150KAM	SC-60KAL SE-60KAL	SC-150KAL SE-150KAL
Capacity	30 kg	60 kg	150 kg	60 kg	150 kg
Resolution (switchable)	0.01 kg 0.005 kg	0.02 kg 0.01 kg	0.05 kg 0.02 kg	0.02 kg 0.01 kg	0.05 kg 0.02 kg
Weighing pan	300 × 380 mm			390 × 530 mm	

◆ oz and lb also available

## Options & Accessories

SCE-02 Quick USB interface

SCE-03 RS-232C + comparator relay output

\* SCE-02 and SCE-03 cannot be used at the same time.

\*\* SC/SE series is not IP68 compliant with SCE-02 or SCE-03.

## FS-i Series



- ✓ Ultra high-speed weighing with 0.5-second stabilization
- ✓ Distinct tricolor LEDs for fast and error-free comparator judgment
- ✓ Take-away checkweighing using the auto-tare function
- ✓ Washable and hygienic stainless steel (SUS304) display unit and weighing pan
- ✓ Waterproof and corrosion-resistant load cell\*
- ✓ Fast data acquisition with a refresh rate of 20 times/second
- ✓ Large memory of 100 comparator settings
- ✓ 60-segment analog sweep (horizontal bar) display for intuitive filling control
- ✓ Simple operation mode to prevent accidental changes to the settings

\* Aluminum anodized and coated with epoxy resin with protective silicon over wiring

### Optional



### The display unit as an IP65 indicator for checkweighing scales (FS-D)

The FS-i display unit, or FS-D, has eight preset capacities with three selectable resolutions, and can be used with platforms other than A&D's.

Model	FS-6Ki	FS-15Ki	FS-30Ki
Capacity	6 kg	15 kg	30 kg
Resolution (switchable)	0.002 kg	0.005 kg	0.01 kg
	0.001 kg	0.002 kg	0.005 kg
	0.0005 kg	0.001 kg	0.002 kg
Weighing pan	250 × 250 mm		380 × 300 mm

♣ g, oz, lb and lb-oz also available

### Options & Accessories

HC-02i Sealed lead acid rechargeable battery (6V, 4Ah)

FS-03i RS-232C + comparator relay output

FS-04i RS-422/485 + comparator relay output

★ FS-03i and FS-04i cannot be used at the same time.

# HV-C(P)/HW-C(P) Series



HV/HW-CP



HV/HW-C



Platform only



**Optional**



LED comparator lights



LCD display with white backlight



Alphanumeric keypad

Built-in printer (for the HV/HW-CP series)

- ✓ Stabilization within 1 second (for the HV-C/HV-CP series)
- ✓ Bright and multi-colored 5-step LED comparator lights
- ✓ Take-away checkweighing using the auto-tare function
- ✓ Quick and easy setting using the alphanumeric keypad
- ✓ Built-in printer for creating paper-based records on the spot (for the HV-CP/HW-CP series)
- ✓ IP65 dust & waterproof base unit with a stainless steel (SUS430) pan
- ✓ Three slots for optional data communication interfaces

Model	HV-15KC HV-15KCP			HV-60KC HV-60KCP			HV-200KC HV-200KCP		
	Capacity	3 kg	6 kg	15 kg	15 kg	30 kg	60 kg	60 kg	150 kg
Resolution	0.001 kg	0.002 kg	0.005 kg	0.005 kg	0.01 kg	0.02 kg	0.02 kg	0.05 kg	0.1 kg
Power supply	HV-C series : AC adapter or 4 D batteries (1200 hours) HV-CP series: AC adapter								
Weighing pan	250 × 250 mm			330 × 424 mm			390 × 530 mm		

Model	HW-10KC HW-10KCP		HW-60KC HW-60KCP		HW-100KC HW-100KCP		HW-200KC HW-200KCP	
	Capacity	10 kg		60 kg		100 kg		220 kg
Resolution	0.001 kg		0.005 kg		0.01 kg		0.02 kg	
Power supply	HW-C series : AC adapter or 4 D batteries (1200 hours) HW-CP series: AC adapter							
Weighing pan	250 × 250 mm		330 × 424 mm		390 × 530 mm			

## Options & Accessories

- HVV-02CB USB interface (for bi-directional communication, type-B)
- HVV-03C RS-232C interface (D-Sub 9P)
- HVV-04C Comparator relay output/buzzer/contact input interface
- HVV-08C Extension cable (5 m)\*

- HVV-11C Wall-mount bracket
- HVV-13 Large roller conveyer (for the 100 to 200 kg capacity models)
- HVV-14 Medium-size roller conveyer (for the 60 kg capacity models)
- AX-PP147-S Paper for the built-in printer (5 rolls)

\* Recalibration is required after connecting the extension cable.

# HV-WP/HW-WP Series



- ✓ Washable and hygienic stainless steel (SUS304) display unit and weighing pan
- ✓ Wide selection from 7 models in total
  - HV-□□□V-WP Triple weighing ranges & VFD display
  - HW-□□□V-WP High resolution (1/10,000) & VFD display
- ✓ Simple batch function and full/dribble batch function
- ✓ Detachable/wall-mountable display unit (optional holder is required)

Model	HV-15KV-WP			HV-60KV-WP			HV-200KV-WP		
Capacity	3 kg	6 kg	15 kg	15 kg	30 kg	60 kg	60 kg	150 kg	220 kg
Resolution	0.001 kg	0.002 kg	0.005 kg	0.005 kg	0.01 kg	0.02 kg	0.02 kg	0.05 kg	0.1 kg
Power supply	AC main								
Weighing pan	250 × 250 mm			330 × 424 mm			390 × 530 mm		

Model	HW-10KV-WP	HW-60KV-WP	HW-100KV-WP	HW-200KV-WP
Capacity	10 kg	60 kg	100 kg	220 kg
Resolution	0.001 kg	0.005 kg	0.01 kg	0.02 kg
Power supply	AC main			
Weighing pan	250 × 250 mm	330 × 424 mm	390 × 530 mm	

## Options & Accessories

- HVW-02G Extension cable (5 m)
  - HVW-03G RS-232C + comparator relay output with buzzer
  - HVW-04WP RS-422/485 + comparator relay output
- \* Only one of HVW-03G, HVW-04WP or the standard RS-232C can be used.

- HVW-13 Roller conveyer (large) for HV-200KV-WP, HW-100K/200KV-WP
- HVW-14 Roller conveyer (medium) for HV/HW-60KV-WP
- AX-043005266 Indicator holder/wall-mount kit



## FG Series



### Optional



FG-150KAL



FG-60KBM

- ✓ High-speed weighing with 1-second stabilization
- ✓ Display unit either on a column (FG-KAM/KAL) or attached directly to the platform (FG-KBM)
- ✓ Washable stainless steel (SUS430) weighing pan
- ✓ Two types of power supply: AC adapter or normal batteries

Model	FG-30KAM FG-30KBM	FG-60KAM FG-60KBM	FG-150KAM FG-150KBM	FG-60KAL	FG-150KAL
Capacity	30 kg	60 kg	150 kg	60 kg	150 kg
Resolution (switchable)	0.01 kg	0.02 kg	0.05 kg	0.02 kg	0.05 kg
	0.005 kg	0.01 kg	0.02 kg	0.01 kg	0.02 kg
	0.002 kg	0.005 kg	0.01 kg	0.005 kg	0.01 kg
Weighing pan	300 × 380 mm			390 × 530 mm	

### Options & Accessories

FG-23 RS-232C interface

FG-24 RS-232C + comparator relay output

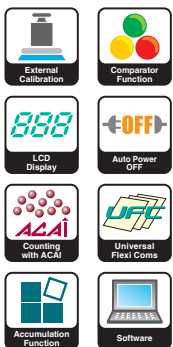
★ FG-23 and FG-24 cannot be used at the same time.

HVW-02G Extension cable (5 m)

AX-3007527-5S Protective cover (5 pcs)

# Counting Scales

## HC-i Series



### Optional



- ✓ Beginner-friendly Unit Weight Registering Navigator
- ✓ Audible Weighing Assist (AWA) beep function
- ✓ Detachable display unit
- ✓ Washable stainless steel (SUS430) weighing pan
- ✓ Memory capacity for up to 99 items
- ✓ Simple operation mode to avoid any unwanted operational mistakes

Model		HC-3Ki	HC-6Ki	HC-15Ki	HC-30Ki
Min. unit weight	Normal mode	0.1 g	0.2 g	0.4 g	1 g
	Fine mode	0.005 g	0.01 g	0.02 g	0.05 g
Capacity		3 kg	6 kg	15 kg	30 kg
Resolution		0.5 g	1 g	2 g	5 g
Max. count display		600,000		750,000	600,000
Weighing pan		300 × 210 mm			

### Options & Accessories

HC-02i Sealed Lead Acid rechargeable battery (6V, 4Ah)

HC-03i RS-232C interface

HC-04i RS-232C + comparator relay output

HC-08i Extension cable (2 m)

★ HC-03i and HC-04i cannot be used at the same time.

# FC-Si/FC-i Series



-  External Calibration
- FC-Si  SHS Super Hybrid Sensor
-  VFD Display
-  RS-232C Interface
-  ACAI Counting with ACAI
-  Accumulation Function
-  Comparator Function
-  Universal Flexi Coms
-  Software

- ✓ Beginner-friendly Unit Weight Registering Navigator
- ✓ High internal resolution (FC-Si: 1/10,000,000 / FC-i: 1/1,000,000) for extremely accurate counting
- ✓ Large memory capacity for up to 500 items
- ✓ Removable stainless steel (SUS304) weighing pan
- ✓ Simple operation mode to avoid any unwanted operational mistakes



## Two scale operation

You can connect a separately-sold weighing platform to count articles that require a larger capacity than that of the FC-Si/FC-i.

### Optional



Model	FC-500Si	FC-5000Si	FC-500i	FC-1000i	FC-2000i	FC-5000i	FC-10Ki	FC-20Ki	FC-50Ki	
Min. unit weight	Normal mode	0.001 g	0.01 g	0.01 g	0.02 g	0.04 g	0.1 g	0.2 g	0.4 g	1 g
	Fine mode	0.00005 g	0.0005 g	0.0005 g	0.001 g	0.002 g	0.005 g	0.01 g	0.02 g	0.05 g
Capacity	500 g	5000 g	500 g	1 kg	2 kg	5 kg	10 kg	20 kg	50 kg	
Resolution	0.02 g	0.2 g	0.05 g	0.1 g	0.2 g	0.5 g	1 g	2 g	5 g	
Max. count display	9,999,999			1,000,000						
Weighing pan	128 × 128 mm	165 × 165 mm	205 × 152 mm			300 × 280 mm				

## Options & Accessories

- FC-01i Barcode reader
- FC-02i Built-in rechargeable battery pack (Ni-MH)
- FC-03i RS-232C × 2 ch
- FC-04i RS-232C × 1 ch + comparator relay output
- FC-05i Interface for a remote scale

★ FC-03i and FC-04i cannot be used at the same time.

## HT Series



HT-120



HT-300/500  
/3000/5000



Name plate holder



### Stackable carrying case

Takes up less space for storage

- ✓ Three color bars to sort scales easily
- ✓ Long battery life of approx. 450 hours (with alkaline batteries)
- ✓ Security slot in the rear of the scale to accommodate an anti-theft lock
- ✓ Multiple weighing units: g, oz, lb-oz\*, ozt, tl, tol, N
- ✓ Optional stainless steel (SUS304) weighing pan

\* lb-oz not available with the HT-300

### Compact Precision Scale

## HT-120

- ✓ High resolution of 0.01 g with excellent repeatability of 0.01 g ( $\sigma$ )
- ✓ Unparalleled battery life of 500 hours (with alkaline batteries, backlight off)
- ✓ Hygienic and chemically resistant stainless steel (SUS304) weighing pan and protector plate
- ✓ Stackable carrying case that economizes space for storage
- ✓ Security slot in the rear of the scale to accommodate an anti-theft lock
- ✓ Multiple weighing units: g, oz, ozt, ct, mom, dwt, gr, tl, tol, N



Model	HT-120	HT-300	HT-500	HT-3000	HT-5000
Capacity	120 g	310 g	510 g	3100 g	5100 g
Resolution	0.01 g	0.1 g		1 g	
Weighing pan	ø70 mm		132 × 130 mm		

### Options & Accessories

Stainless steel (SUS304) pan for HT-300/500/3000/5000 (HT-10)  
AC adapter

# SK-WP Series



- ✓ Washable and hygienic stainless steel (SUS304) construction
- ✓ Long battery life of approx. 1200 hours (with alkaline batteries)
- ✓ Large and wide-angle LCD display with 25 mm character height

Model	SK-1000WP	SK-2000WP	SK-5000WP	SK-5001WP	SK-10KWP	SK-20KWP	SK-30KWP
Capacity	1000 g	2000 g	5000 g	5000 g	10 kg	20 kg	30 kg
Resolution	0.5 g	1 g	2 g	1 g	5 g	10 g	20 g
Weighing pan	232 × 192 mm						



## Options & Accessories

AC adapter\* \* SK-WP series is not IP65 compliant with the AC adapter.

# IP65 Dust & Waterproof Compact Scales

# HL-WP Series



- ✓ Washable and hygienic stainless steel (SUS304) construction
- ✓ Battery life of approx. 200 hours (with alkaline batteries)
- ✓ Version with a larger pan size available (HL-3000LWP)

Model	HL-300WP	HL-1000WP	HL-3000WP	HL-3000LWP
Capacity	300 g	1000 g	3000 g	3000 g
Resolution	0.1 g	0.5 g	1 g	1 g
Weighing pan	128 × 128 mm		174 × 137 mm	



## Options & Accessories

AC adapter\* \* HL-WP series is not IP65 compliant with the AC adapter.



## Compact Bench Scales

# SJ-HS Series



- ✓ Hygienic and chemically-resistant stainless steel (SUS304) weighing pan
- ✓ High-speed weighing with 1-second stabilization
- ✓ Long battery life of approx. 2000 hours (with alkaline batteries)
- ✓ Multiple weighing units: g, oz, lb, lb-oz
- ✓ Two side handles for easy carrying of the scale

Model	SJ-1000HS	SJ-2000HS	SJ-5000HS	SJ-5001HS	SJ-12KHS	SJ-20KHS	SJ-30KHS
Capacity	1000 g	2000 g	5000 g	5000 g	12 kg	20 kg	30 kg
Resolution	0.5 g	1 g	2 g	1 g	5 g	10 g	20 g
Weighing pan	230 × 190 mm						

**Options & Accessories** AC adapter

## Compact Scales

# HL-i Series



- ✓ Compact, and storable on side or back to save space
- ✓ Long battery life of approx. 1000 hours (with alkaline batteries)
- ✓ Multiple weighing units: g, oz, tl and ct (HL-200i) or lb-oz (HL-2000i)
- ✓ Optional stainless steel weighing (SUS304) pan and carrying case

Model	HL-200i	HL-2000i
Capacity	200 g	2000 g
Resolution	0.1 g	1 g
Weighing pan	ø130 mm	

### Options & Accessories

Stainless steel (SUS304) pan (AX-043008052)  
Carrying case (AX-093008304)  
AC adapter

## Pocket Scale

# HJ-150



- ✓ Compact (66 × 98 mm) and lightweight (100 g including batteries)
- ✓ Protective cover that also becomes a weigh boat
- ✓ Comes with a free calibration weight

Model	HJ-150
Capacity	150 g
Resolution	0.1 g
Weighing pan	60 × 64 mm

# FZ-CT/FX-CT Series

- ✓ High-speed weighing with 2-second stabilization
- ✓ Removable, shatterproof breeze break with antistatic coating
- ✓ Compact foot print: 198 mm × 294 mm (smaller than an A4 sheet of paper)



- ✓ Rotary sliding doors requiring no extra space at the rear
- ✓ Adjustable response characteristics to help cope with the effect of drafts and vibrations
- ✓ Multiple weighing units: ct, g, oz, lb, lb-oz, ozt, mom, dwt, gr, and a user-programmable unit for conversion applications (either tl, tol or N can be added upon request)

Model	FZ-500CT FX-500CT	FZ-700CT FX-700CT	FZ-1200CT FX-1200CT
Capacity	510 ct / 102 g	760 ct / 152 g	1260 ct / 252 g
Resolution		0.001 ct / 0.001 g	
Repeatability (σ)		0.001 ct / 0.0005 g	
Linearity		±0.002 ct / ±0.001 g	
Weighing pan		ø90 mm	

## Options & Accessories

- AX-CARATPAN-W Carat pan (silver, 2pcs)
- AX-CARATPAN-B Carat pan (black, 2pcs)

\* Please refer to the HR-AZ/HR-A series for other options and accessories available.

**Optional**

- Quick USB
- LAN-Ethernet Interface
- Rechargeable Battery

**FZ-CT**

- Internal Calibration
- External Calibration
- Super Hybrid Sensor
- Reverse Backlit LCD
- RS-232C Interface
- GLP Compliant
- Clock & Calendar
- Counting with ACA!
- Percentage Function
- Animal Weighing
- Statistical Calculation

## Jewelry Scale

# HT-500GD



- ✓ Multiple weighing units: g, oz, lb-oz, ozt, dwt, ct, tl, tol, N
- ✓ Scratch-resistant stainless steel (SUS304) weighing pan
- ✓ Long battery life of approx. 450 hours (with alkaline batteries)
- ✓ Security slot in the rear of the scale to accommodate an anti-theft lock
- ✓ Stackable carrying case that economizes space for storage

Model	HT-500GD
Capacity	510 g
Resolution	0.1 g
Weighing pan	135 × 133 mm

## Options & Accessories

- AC adapter

- External Calibration
- LCD Display
- Auto Power OFF
- Normal Battery



## Discover Precision

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