Access to your success
SHIMADZU

C054-0351

SHIMADZU ANALYTICAL BALANCES

AUW-D/AUW/AUX/AUY Series

Over 80 years of experience in precision weighing
and UniBloc technology



The latest information on balances and scales is available at the following site:
http://www.shimadzu.com/balance/

ISO9001 Registered


Uni Bloc

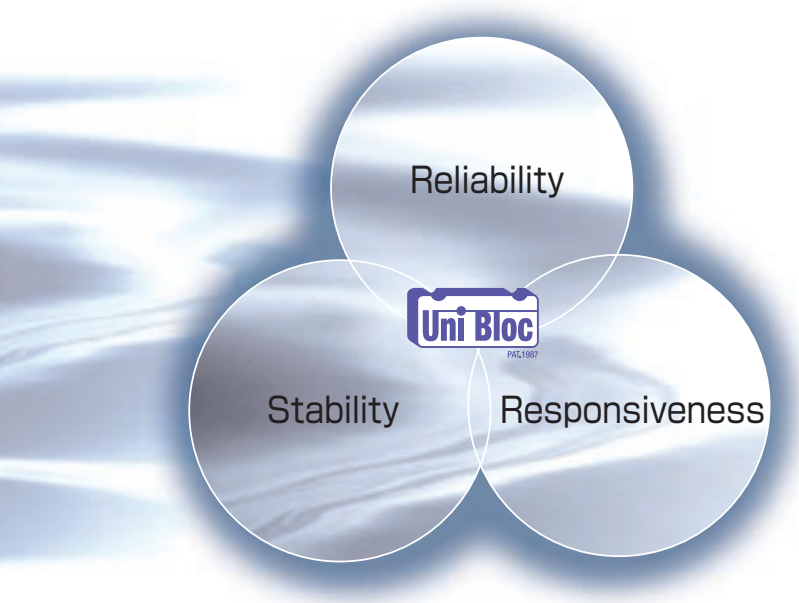
AUW-D/AUW/AUX/AUY Series

Shimadzu´s over 80 years of experience in precision weighing, and newly-improved UniBloc one-piece force cell technology bring a new era to analytical balances.
Excellent stability and response are exclusively for the users´ benefits.
AUW-D series are the first five-decimal balances with the UniBloc force cell.



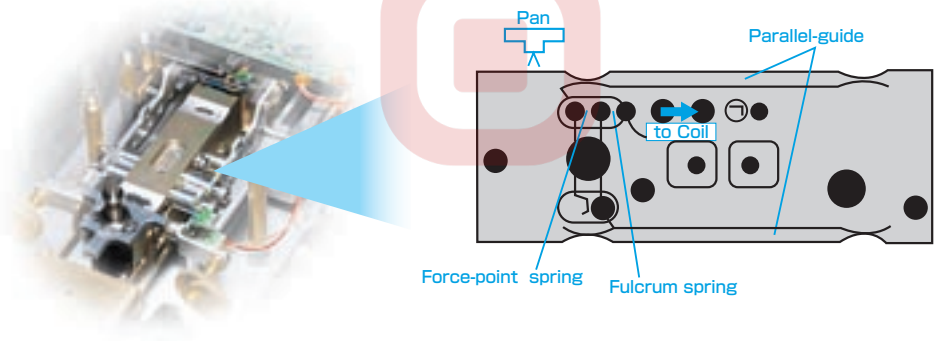
Newly-improved UniBloc
–Shimadzu Technology–





UniBloc is a one piece force cell technology introduced to precision balances by Shimadzu in 1989. It is created by high-precision electric discharge wire processing applied to a block of aluminum alloy, replacing the conventional electro-magnetic sensor assembly. UniBloc's uniform structure ensures stable temperature characteristics, excellent and stable corner-load performance. Reliability over long periods are also improved as the quality of production is substantially stabilized.
AUW-D dual range analytical balances are the first five-decimal balance with the UniBloc one-piece force cell technology.

One piece force cell patented in USA in 1989, No.4799561, in China in 1991, No.12729, in Japan in 1995, No.1905686, first commercially introduced by Shimadzu in 1989 for the precision platform balances EB-K, EB-KW series.



Excellent Weighing Performance

Fast Response

Improved mechanism and digital processing technology offers operator fast response and stability at the same time. Precision weighing no longer requires you a lot of patience.

Environmental adjustment

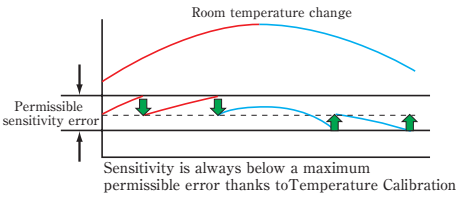
A microcomputer performs digital control which even selects the most suitable data processing depending on the installation environment and type of the item weighed.

Automatic Span Calibration

Span Calibration is essential for accurate measurement in precision weighing, even upon small change in ambient temperature.
AUW-D/AUW/AUX-series balances have a built-in motor-driven calibration weight.
The balance will take care of the calibration itself and leave the operator to concentrate on measurement work. Operator can choose from two fully-automatic calibration methods, PSC and Clock-CAL.

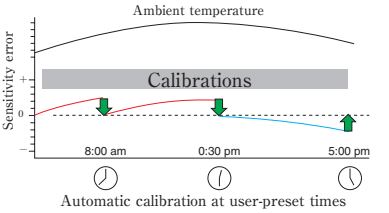
Fully-automatic calibration by temperature detection: PSC

The balance detects variations in the ambient temperature that influence sensitivity and automatically performs calibration to compensate it.
(AUW-D/AUW/AUX series)
This great benefit for the operator has been given by Shimadzu since as early as 1985.



Fully-automatic Calibration at user pre-set times: Clock-CAL

The balance automatically performs calibration at set times, up to three times a day (e.g., before starting work, during lunch-break, or after work).
(AUW-D/AUW series)



Besides fully-automatic methods, span calibration can be performed at any time just by pressing a button (one-button calibration).

Also, your external calibration weight can be used for span calibration if you wish.



Measurement Administration

GLP/GMP/ISO9000 Conformance

If an optional printer is connected, data can be printed out with the date and time.
Calibration report can be automatically output, ensuring the measuring control and traceability required by GLP/GMP/ISO9000. (AUW-D/AUW/AUX series)

Example of calibration record



Application Support

WindowsDirect, handiest data transmission to the computer Shimadzu´s unique WindowsDirect function

Measurement results can be transmitted to Excel or other Windows applications without any software installation to your computer. All you have to add is just one RS-232C cable.
A combination with the standard Auto Print function, an automatic data storing system can be built up with no additional cost and effort.



Specific Gravity Measurement

Using the optional SMK-401 specific gravity kit transforms the balance into a dedicated instrument for measuring specific gravity. Specific gravity measurement software is pre-installed.



Below-weigh Hook for Hanging Measurement

Measurement which cannot be performed within the weighing chamber can be made possible using a hook provided as standard



Piece Counting and Unit Conversion

In addition to piece counting, the balance can also perform weight measurement as percentages and in a variety of units, such as carat.

*with optional AKB-301 Application Keyboard

Interval Timer

Data can be automatically output at time intervals set in the range 1 s to 99 min 59 s. This function can be also combined with WindowsDirect. (AUW-D/AUW/AUX series)



User-friendly Features



User-friendly Weighing Chamber

The large dimensions of the weighing chamber allow easy measurement of even tall flasks. Equalization in temperature before measurement is essential in precision weighing. This is also easy with the extra space to allow samples kept inside the chamber.

Weighing work is made easy by the smooth door movement.The doors can be detached to allow the chamber to be cleaned with ease and it is also possible to remove and replace the door rail.



Easy Level Adjustment

Level adjustment, particularly important in installing an analytical balance, can be performed with ease using an easy-to-view level gauge at the front of the balance and large level screws.



Metal housing

The aluminum die-cast housing offers lasting high quality of exterior, protection of the core mechanism, and ease of keeping cleanliness.



Backlit Display

Allows Use under poor lighting conditions (AUW series)



Comfortable Key Operation

The embossed key panel sheet provides clear clicking response as operated. The key operations are confirmed with a gentle beeping sound, too.

Analog Bar Graph Display

The analog display allows the operator to ascertain at a glance how much can be further loaded before reaching the weighing capacity.

Standard in-use protective cover

keeps key panel and display away from dirt.

Expanding Possibilities with a Wide Range of Accessories (Optional)

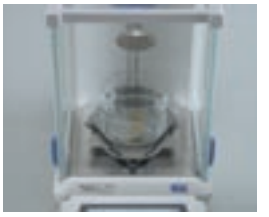
Name	Specification
Electronic Printer EP-50	Equipped with statistical calculation functions (10 items) and numeric keypad. Uses standard paper.
Electronic Printer EP-60A	Equipped with statistical calculation functions (10 items). Uses thermal paper.
Specific Gravity Measurement Kit SMK-401	This kit makes it possible to determine specific gravity of solids with the highly precise immersion method. Samples with weights up to the weight capacity can be measured.
Rechargeable Battery Pack	This pack makes it possible to use the balance outdoors or in other locations where no power supply is available. Charging the battery pack for 8 hours allows 8 hours of use with an AUW-D/AUW/AUX/AUY-series balance.
RS-232C Cable	Required to connect to a PC.
Application Keyboard AKB-301	Enables unit weight settings for piece counting, pass/fail judgment threshold settings, tare value settings, and other numerical settings to be performed easily.
Foot switch FSB-102PK	For printing (key connector)
Foot switch FSB-102TK	For taring (key connector)



EP-50



EP-60A



SMK-401



AKB-301

Consumables and Replacement

Name	Specification
In-use Protective Cover (standard accessory)	Cover for display (1 cover provided as standard accessory; 5 covers in a set)
Standard Paper for EP-50	5 rolls per box
Dust-free Paper for EP-50	5 rolls per box
Ribbon Cassette for EP-50	5 per set
Thermal Paper for EP-60A	10 rolls per box



AUW-D AUW AUX AUY

Specification

Series	AUW-D series (dual range semi-micro)		AUW series			AUX series			AUY series	
Model	AUW220D	AUW120D	AUW320	AUW220	AUW120	AUX320	AUX220	AUX120	AUY220	AUY120
Capacity	220g/82g	120g/42g	320g	220g	120g	320g	220g	120g	220g	120g
Minimum display	0.1mg/0.01mg	0.1mg/0.01mg	0.1mg	0.1mg	0.1mg	0.1mg	0.1mg	0.1mg	0.1mg	0.1mg
Repeatability (Standard deviation, σ)	≦0.1mg (large range) ≦0.05mg (small range)	≦0.1mg (large range) ≦0.02mg(small range)	≦0.15mg	≦0.1mg	≦0.1mg	≦0.15mg	≦0.1mg	≦0.1mg	≦0.1mg	≦0.1mg
Linearity	±0.2mg(large range) ±0.1mg(small range)	±0.2mg(large range) ±0.1mg(small range)	±0.3mg	±0.2mg	±0.2mg	±0.3mg	±0.2mg	±0.2mg	±0.2mg	±0.2mg
Response time (stabilization time, typical)	3s(Large range), 15s(small range)	3s(Large range), 12s(small range)	3 s							
Calibration weights	Built-in								N/A	
Operation ambient temperature	5 to 40 ℃									
Temperature coefficient of sensitivity (10 to 30℃)	±2ppm/℃ (When PSC is Off)								±2ppm/℃	
Sensitivity stability against temperature (When PSC is On,10to 30℃)	±2ppm									
Pan size	80mm dia approx.									
Body dimensions	220mmW X 330mmD X 310mmH approx.									
Weight	7kg approx.									
Power consumption	7VA approx.									
Functions and features: Backlight			●	●	●					
Functions and features: PSC	●	●	●	●	●	●	●	●		
Functions and features: Clock-CAL	●	●	●	●	●					
Functions and features: Built-in Clock	●	●	●	●	●	●	●	●		
Functions and features: GLP/GMP/ISO Calibration Report	●	●	●	●	●	●	●	●		
Functions and features: WindowDirect	●	●	●	●	●	●	●	●	●	●
Functions and features: Interval timer output	●	●	●	●	●	●	●	●		
Functions and features: RS-232 I/F	●	●	●	●	●	●	●	●	●	●
Functions and features: Specific gravity measurement software, piece counting, % display, unit conversion	●	●	●	●	●	●	●	●	●	●
Functions and features: Analog display	●	●	●	●	●	●	●	●	●	●
Functions and features: Battery (option)	●	●	●	●	●	●	●	●	●	●

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