

# Shimadzu Electronic Balance

# **UW/UX Series**

Featuring UniBloc Technology



# UW/UX Series

**Fast Response**

Weighing takes just 0.7 -1.2 seconds (S type)

**Excellent Durability**

Long-life design employing a unique weighing mechanism

**Easy Connection**

Windows Direct function allows easy data communication to a computer

## Great for the Following Applications

High-precision balances with comprehensive functions to handle diverse applications and increase productivity.

### I want to upload measured data to a PC but installing the software is difficult .....

#### No software needed, just a cable!

WindowsDirect function transmits data to a PC with just a cable. Achieve remarkable improvements in work efficiency with no additional investment, except for a cable.

The standard auto print functions can be combined with WindowDirect function.

If you'd like to use "Windows Direct" with "Windows VISTA", or USB port, please contact to our distributors.

### I always need to weigh accurately but calibrating my balance is tedious.....

#### Easy calibration for every application

Calibrations are automatically performed upon detection of temperature change (UW). The balance automatically calibrates itself at the set times with its built-in calibration weights (UW).

Calibrations can also be made at any time by a simple key operation (UW). Span calibration of the UX Series is just placing the calibration weights on the balance according to the displayed instructions.

### I need to manage weighing according to international standards.....

#### Use Shimadzu network-compatible software to provide full compatibility with FDA 21 CFR Part11.

Fully-automatic calibration such as PSC or Clock- CAL ensure accurate weighing (UW). Just connect an optional printer to automatically output time-stamped hardcopy calibration report each time.

Adding CLASS- Agent Ver.2.2- the Shimadzu network-compatible database registration and management tool enables full compatibility with FDA 21 CFR Part11 (Electronic Records, Electronic Signatures).

### I work in a drafty, dark environment.....

#### Adjust the balance to match the environment

The display stability can be adjusted to the environment. Windbreak is provided as standard on models with 1mg display, and is an option for other models. The auto zero function is useful in an environment where the TARE key must be pressed for every measurement. The back lighted display provides a clear display in dark environments.



#### WindowsDirect Function

Only a single cable is required to transfer balance data to MSEXcel®, or other applications on Windows®.

No interface attachment or software installation is necessary. This unique function makes interfacing Shimadzu balances extremely convenient.



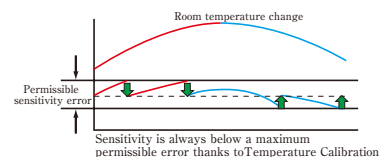
#### Automatic Touch-key Calibration (UW only)

Press just two keys to calibrate the balance whenever calibration is necessary.



#### PSC Fully-automatic Calibration (UW only)

Detected temperature change triggers calibration, to automatically maintain the balance sensitivity. Shimadzu's user-friendly feature since 1985.



#### Clock-CAL Fully-automatic Calibration (UW only)

Automatic calibration at pre-set time. Up to three times a day can be programmed.



#### GLP/GMP/ISO Calibration Record

Just connect the optional printer to automatically output calibration results. Date and time are supplied by the balance's built-in clock.

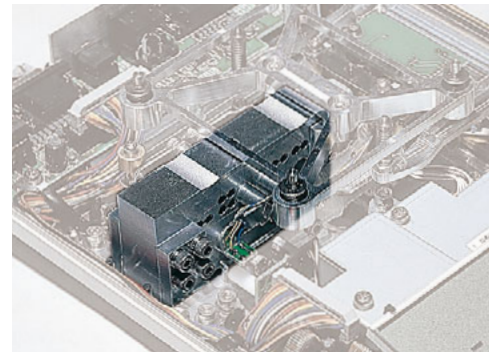


#### Backlit LCD

The backlit LCD display can be clearly read in the darkest of environments.

## UniBloc Technology

UniBloc one piece force cell technology replaces the core mechanism of high-precision balance with a single aluminum alloy block. This brings various advantages to the user including: fast response, high stability, long operational life etc.



## What About Special Requirements ?

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### I Have to Weigh a Lot of Valuable Samples Very Accurately

The improved UW/UX Series resolution achieves a minimum display accuracy of 0.01 g for 6 kg or 1 mg for 600 g.

**Resolution**  
1  
620000

#### Resolution 1/620,000

High-resolution models with a resolution of 620 g/1 mg or 6200 g/0.01 g can accurately detect minute changes in a large mass.



### I Need to Weigh Large Objects

The large pan easily accommodates samples extending beyond the pan. A built-in weigh-below hook allows weighing even unusually oversized items.

**HI  
GO  
LO**

#### Checkweighing Function

When upper and lower thresholds are set, the balance indicates if the sample weight is within the range (GO), over (HI) or under (LO).

### Can I Weigh Living Animals?

The standard animal-weighing mode allows accurate weighing of even moving animals. It gets the balance ready for the next animal without cleaning the pan each time. An optional animal bucket is available.

**↓**

#### Weigh-below hook

The standard weight-below hook enables weighing on a user's customized pan.

### I Have to Handle Chemicals

The stainless-steel pan can be easily removed for washing. The metal housing is resistant to organic solvents. A clear, molded in-use cover is standard.

**Specific Gravity**

#### Specific Gravity Function

The standard specific gravity measurement calculation function uses the Archimedes principle. Attaching the optional specific gravity measurement kit allows the balance to be used as a density meter or a hydrometer.

**PCS**

#### Piece Counting

Piece counting function is standard in addition to various unit conversions.

## I Need to Weigh A Lot of Objects.....

### Offers Fast, Stable and Accurate Results

The ultra-fast response reduces operator stress and shortens work time. UniBloc technology significantly enhances stability and durability. It ensures reliable weighing results over repeated operations.

If a weighing record is required, the standard auto print function can automatically output data each time a weighed sample is placed on the balance. For compatibility with automated production-line operation, all settings and functions can be controlled from a computer.

## Specifications

### UW (with built-in calibration weights)

UW Series Model	UW220H	UW420H	UW620H	UW2200H	UW4200H	UW6200H	UW420S	UW820S	UW4200S	UW8200S
Capacity	220g	420g	620g	2200g	4200g	6200g	420g	820g	4200g	8200g
Minimum display	0.001g	0.001g	0.001g	0.01g	0.01g	0.01g	0.01g	0.01g	0.1g	0.1g
Calibration range with external weights	100-220g	100-420g	100-620g	1000-2200g	1000-4200g	1000-6200g	100-420g	100-820g	1000-4200g	1000-8200g
Repeatability( $\sigma$ ) (g)	$\leq 0.001$			$\leq 0.01$			$\leq 0.008$		$\leq 0.08$	
Linearity(g)	$\pm 0.002$			$\pm 0.02$			$\pm 0.01$		$\pm 0.1$	
Response time(s)	1.5-2.5						0.7-1.2			
Ambient temperature(C)	1.5-2.5						0.7-1.2			
Temperature coefficient sensitivity(ppm/C)(10-30°C)	$\pm 3$						$\pm 5$			
Pan size(mm)approx.	108×105			170×180			108×105		170×180	
Main body dimensions (mm)approx.	190W×317D×78H									
Weight(kg)approx.	3.4			4.6			3.4		4.6	
Display	LCD with backlight									
Power requirement	DC, 10 to 15.5V, 500mA									
Data I/O	RS-232C									
Features	WindowsDirect PSC Clock-CAL GLP/GMP/ISO conformance Analog display,% display,PCS,User unit,Animal weighing,Specific gravity measurement S/W,Checkweighing									

### UX (Standard model)

UX Series Model	UX220H	UX420H	UX620H	UX2200H	UX4200H	UX6200H	UX420S	UX820S	UX4200S	UX8200S
Capacity	220g	420g	620g	2200g	4200g	6200g	420g	820g	4200g	8200g
Minimum display	0.001g	0.001g	0.001g	0.01g	0.01g	0.01g	0.01g	0.01g	0.1g	0.1g
Calibration range with external weights	100-220g	100-420g	100-620g	1000-2200g	1000-4200g	1000-6200g	100-420g	100-820g	1000-4200g	1000-8200g
Repeatability( $\sigma$ ) (g)	$\leq 0.001$			$\leq 0.01$			$\leq 0.008$		$\leq 0.08$	
Linearity(g)	$\pm 0.002$			$\pm 0.02$			$\pm 0.01$		$\pm 0.1$	
Response time(s)	1.5-2.5						0.7-1.2			
Ambient temperature(C)	1.5-2.5						0.7-1.2			
Temperature coefficient sensitivity(ppm/C)(10-30°C)	$\pm 3$						$\pm 5$			
Pan size(mm)approx.	108×105			170×180			108×105		170×180	
Main body dimensions (mm)approx.	190W×317D×78H									
Weight(kg)approx.	2.7			2.9			2.7		2.9	
Display	LCD with backlight									
Power requirement	DC, 10 to 15.5V, 500mA									
Data I/O	RS-232C									
Features	WindowsDirect GLP/GMP/ISO conformance Analog display,% display,PCS,User unit,Animal weighing,Specific gravity measurement S/W,Checkweighing									

Option	Peripherals
UW/UX series	EP-80
	EP-90
	RS-232C Interface IFB-102A(needed only for multiple connection)
	Small Size Windbreak(for models with capacity of 300g to 620g only)(Std.Acc.for models with readability of 0.001g)
	Large Size Windbreak(for all models)
	Specific Gravity Measurement Kit SMK-101(for Large size pan 170×180mm)
	Specific Gravity Measurement Kit SMK-102(for Small size pan 108×105mm)
	Protective in-use cover for key panel and display(5 pcs)
	Small Animal Bucket set (For large pan models only)
	Angle Adjuster and Wall Hook for Remote Display
	Stand for Remote Display(1m high)
	Comparator Lamps 100V(needs IFB-RY1)
	Interface for comparator IFB-RY1 100V
	Foot Switch FSB-102PK(For printing)
	Foot Switch FSB-102PK(For taring)
RS-232C Cable, for IBM PC/AT Compatibles.(25P-9P, Null modem, 1.5m)	
RS-232C Cable, for multiple connection(25P-25P, Null modem, 1.5m)	
Application Keyboard AKB-301	
Remote Display Unit RDB-201 with operation keys	
Remote Display Unit RDB-202	

The contents of this catalog are subject to change without notice.



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