

Electronic Balances

# UW/UX Series



# 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**

WindowsDirect function allows easy data communication to a computer

## Great for the Following Applications

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

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

#### No software needed!

The 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 the WindowsDirect function.

If you'd like to use "WindowsDirect" with "Windows VISTA", "Windows 7" or a USB port, please contact 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 a 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 with a simple key operation (UW).

Span calibration of the UX Series is easily performed by placing 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 ensure full compatibility with FDA 21 CFR Part 11.

Fully-automatic calibration ensures accurate weighing (UW). Just connect an optional printer to automatically output time-stamped hard copies of calibration reports. Adding CLASS-Agent Ver. 2.2, Shimadzu's network-compatible database registration and management tool, enables full compatibility with FDA 21 CFR Part 11 (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 for models with a 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 MS Excel®, or other Windows® applications. No interface attachment or software installation is necessary. This unique function makes interfacing Shimadzu balances extremely convenient.

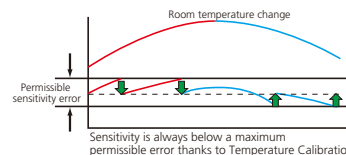


#### Automatic Touch-key Calibration (UW only)

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

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

Introduced in 1985, this user-friendly feature triggers calibration when a temperature change is detected, automatically maintaining the balance's sensitivity.



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

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



#### GLP/GMP/ISO Calibration Record

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

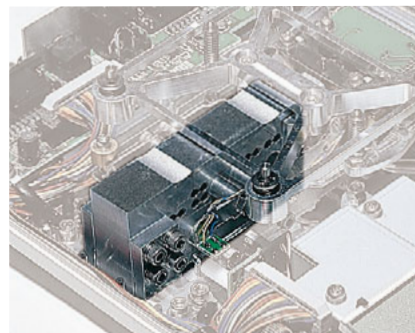


#### Backlight LCD

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

## UniBloc Technology

UniBloc one-piece force cell technology replaces the core mechanism of a high-precision balance with a single aluminum alloy block. This provides a number of advantages, introducing fast response, high stability, and a long operational life.



## 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 1 mg for 1,020 g.

### 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.

### Can I Weigh Living Animals?

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

### 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.

#### Resolution 1/1,020,000

High-resolution models with a resolution of 1,020 g/1 mg can accurately detect minute changes in a large mass.

#### 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).

#### Weigh-below hook

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

#### 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.

#### Piece Counting

A piece counting function is standard in addition to various unit conversions.

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## 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, ensuring 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. In addition, all settings and functions can be controlled from a computer for compatibility with automated production-line operation.

## Specifications

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

UW Series Model	UW220H	UW420H	UW620H	UW820H	UW1020H	UW2200H	UW4200H	UW6200H	UW420S	UW820S	UW4200S	UW8200S		
Capacity	220g	420g	620g	820g	1020g	2200g	4200g	6200g	420g	820g	4200g	8200g		
Minimum Display	0.001g	0.001g	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	400-820g	500-1020g	1000-2200g	1000-4200g	1000-6200g	100-420g	100-820g	1000-4200g	1000-8200g		
Repeatability (σ) (g)	≤0.001						≤0.01			≤0.008		≤0.08		
Linearity (g)	±0.002			±0.003			±0.02			±0.01		±0.1		
Response Time (s)	1.5-2.5										0.7-1.2			
Ambient Temperature and Humidity	5-40°C 30-85% (No Condensation)													
Temperature Coefficient Sensitivity (ppm/°C) (10-30°C)	±3						±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 Requirements	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	UX820H	UX1020H	UX2200H	UX4200H	UX6200H	UX420S	UX820S	UX4200S	UX8200S		
Capacity	220g	420g	620g	820g	1020g	2200g	4200g	6200g	420g	820g	4200g	8200g		
Minimum Display	0.001g	0.001g	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	400-820g	500-1020g	1000-2200g	1000-4200g	1000-6200g	100-420g	100-820g	1000-4200g	1000-8200g		
Repeatability (σ) (g)	≤0.001						≤0.01			≤0.008		≤0.08		
Linearity (g)	±0.002			±0.003			±0.02			±0.01		±0.1		
Response Time (s)	1.5-2.5										0.7-1.2			
Ambient Temperature and Humidity	5-40°C 30-85% (No Condensation)													
Temperature Coefficient Sensitivity (ppm/°C) (10-30°C)	±3						±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 Requirements	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													

Options	Peripherals	
UW/UX series	Electronic Printer EP-80 / EP-90	Stand for Remote Display (1m high)
	RS-232C Interface IFB-102A (needed only for multiple connection)	Comparator Lamps 100V (needs IFB-RY1)
	Small Size Windbreak (for models with capacity of 300g to 620g only) (Std. Acc. for models with readability of 0.001g)	Interface for comparator IFB-RY1 100V
	Glass Windbreak (for models with capacity of 220g to 820g only)	Foot Switch FSB-102PK (For printing)
	Large Size Windbreak (for all models)	Foot Switch FSB-102PK (For taring)
	Specific Gravity Measurement Kit SMK-101 (for Large size pan 170×180mm)	RS-232C Cable, for IBM PC/AT Compatibles (25P-9P, Null modem, 1.5m)
	Specific Gravity Measurement Kit SMK-102 (for Small size pan 108×105mm)	RS-232C Cable, for multiple connections (25P-25P, Null modem, 1.5m)
	Protective in-use cover for key panel and display (5 pcs)	Application Keyboard AKB-301
	Small Animal Bucket set (For large pan models only)	Remote Display Unit RDB-201 with operation keys
	Angle Adjuster and Wall Hook for Remote Display	Remote Display Unit RDB-202



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