



# ADVENTURER™

Semi-Micro, Analytical, and Precision Balances



By Model

## *Intuitive Balances Designed for Routine Weighing*

Striking the ideal balance between inventive features and functional, uncomplicated weighing capabilities, the OHAUS Adventurer incorporates all of the applications necessary for routine weighing and measurement activities. With a color touchscreen, three level user management to fulfill GLP/GMP compliance capabilities, two USB ports, and much more, Adventurer is the most complete balance in its class.

### *Unique Features Include:*

- Adventurer balances feature a color touchscreen, icon-based user interface, and an ergonomic design -making them easy to configure and use.
- Features such as specialized weighing modes, multiple connectivity options, and AutoCal™ provide versatility and flexibility for a variety of applications.
- Durable construction, large weighing surfaces, a space-saving draftshield design, and full housing in-use cover allow for use in lab, education and industrial environments.

# ADVENTURER™ *Semi-Micro, Analytical, and Precision Balances*

## Stability, Accuracy, and Fast Operation Ensure Optimal Weighing Results in Routine Weighing Tasks

### Weighing Performance

- Delivers stable and reliable weighing results for routine weighing tasks

### Stabilization Time

- Adventurer's fast stabilization time improves productivity in the laboratory

### Calibration

- AutoCal™ — Selected models feature OHAUS' automatic internal calibration system that performs routine maintenance by calibrating the balance daily
- External Calibration — Traditional calibration in which the operator manually calibrates the balance with their choice of calibration weight value to ensure accuracy available on every model



## Color Touchscreen Offers Easy and Fast Operation of Adventurer's Applications

- Operate and access Adventurer's nine application modes and abundant features that eliminate the need to do several manual calculations through the modern color touchscreen
- Operators can wear laboratory gloves while utilizing the touchscreen, eliminating the inconvenience and hazards associated with constantly putting on and removing gloves
- In addition to the touchscreen, Adventurer also has six mechanical keys that provide tactile feedback and allow the operator to perform repetitive operations such as tare, zero, calibration, and print



## Application Modes



### Weighing

Determine the weight of items in the selected unit of measure.



### Parts Counting

Count samples of uniform weight.



### Percent Weighing

Measure the weight of a sample displayed as a percentage of a pre-established Reference Weight.



### Dynamic Weighing

Weigh an unstable load. Scale takes an average of weights over a period of time.



### Density Determination

Determine density of solids or liquid. With the weigh below hook, it's possible to perform specific gravity tests for objects that cannot be easily placed on the weighing pan.



### Check Weighing

Compare the weight of a sample against target limits.



### Display Hold\*

Manually holds the last stable weight or highest weighing value on the display.



### Totalization / Statistics

Measure cumulative weight of multiple items. Cumulative total may exceed balance capacity.



### Formulation

For compounding and recipe making. The number of components can range from 2 to 50.

\*NTEP models (AXxxxN) will not have display hold.



### Batch Printing

Combine multiple samples into one printout rather than printing them one at a time.

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## Equipped with the Connectivity and Functional Features Required in Laboratories

### Dual USB Ports

- A front USB host port is easily accessible and makes it simple to load data from the balance on to a flash drive without having to reach around to the back or move the balance
- A second USB device port is located at the rear of the balance that can be used to connect the balance to a PC
- The connectivity options help meet traceability requirements in traditional installations

### Label Printing Function

- Easy to link with Zebra printer and available with one built-in label printing template

### Balance Profiles

- The cloning feature allows you to save user and application settings to a USB flash drive which can be easily used to configure additional Adventurer balances

### Below Minimum Sample Weight Indication

- When using the minimum weight feature, the display clearly indicates that your current sample weight is below your defined minimum limit. Simply increase your sample weight to assure that your results are up to your standard



## Space-saving Draftshield Designed to Improve User Experience and Accessibility

- Draftshield doors are constructed of two glass panels, reducing the space required on the lab bench when the doors are open
- Wide door entry provides unobstructed access and allows larger weighing vessels to be easily placed on the pan, reducing the chance of accidental spillage
- Easy to keep clean in order to ensure a safe workspace by minimizing contamination



## Power Saving Functions

- The Adventurer is designed with various power-saving features that help reduce the environmental impact. These include auto-off and brightness controls.



## User Management Function ensures data security and data traceability

- 3 level user management function ensures data security and data traceability requirements
- One administrator, two supervisors and 10 users have preset accessibility in the software



## Real Time Clock with GLP/GMP Data

- A real-time clock function keeps accurate time even during power loss
- GLP data capability has the ability to record Sample name, Project names and Balance IDs to help meet traceability and compliance requirements

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## Specifications

| Model  | AX125D  | AX85     | AX225D         | AX124                          | AX224   | AX324 | AX223             | AX423              | AX523    | AX623    |
|--|---|----------|----------------|--------------------------------|---------|-------|-------------------|--------------------|----------|----------|
| External Calibration   | —   | —        | —              | AX124/E                        | AX224/E | —     | AX223/E           | AX423/E            | AX523/E  | AX623/E  |
| Approved Models  | —   | —        | —              | —                              | AX224N  | —     | AX223N/E          | AX423N<br>AX423N/E | AX523N/E | AX623N/E |
| Capacity (g)   | 82/120  | 82       | 102/220        | 120                            | 220     | 320   | 220               | 420                | 520      | 620      |
| Readability d (g)  | 0.00001/0.0001  | 0.00001  | 0.00001/0.0001 | 0.0001                         |         |       | 0.001             |                    |          |          |
| Verification Interval* e (g)                                 | —   |          |                | —                              | 0.001   | —     | 0.01              |                    |          |          |
| Class*   | —   |          |                | I                              |         |       | II                |                    |          |          |
| "Repeatability (sd.), ≤5% of Full Load (g)"                  | 0.00001   |          |                | 0.00008                        |         |       | 0.0008            |                    |          |          |
| Repeatability (sd.), 5% of Full Load to Fine Range Max (g)   | 0.00002   |          |                | —                              |         |       |                   |                    |          |          |
| Repeatability (sd.), 5% of Full Load to Full Range (g)       | 0.0001  | 0.00002  | 0.0001         | 0.0001                         |         |       | 0.001             |                    |          |          |
| Linearity Deviation, Typical (g)                             | ±0.00006  | ±0.00006 | ±0.00006       | ±0.00006                       |         |       | ±0.0006           |                    |          |          |
| Linearity Deviation (g)                                      | ±0.0001   | ±0.0001  | ±0.0001        | ±0.0002                        |         |       | ±0.002            |                    |          |          |
| Stabilization Time (sec)                                     | 8s  |          |                | ≤3                             |         |       | ≤2                |                    |          |          |
| Sensitivity Drift (ppm/°C)                                   | 2   |          |                | 3                              |         |       |                   |                    |          |          |
| Min-Weight (Typical) (g) (USP, K=2, U=0.10%)                 | 20 mg   |          |                | 0.16 g                         |         |       | 1.6 g             |                    |          |          |
| "Min-Weight (Optimal) (g) (USP, K=2, U=0.10%, SRP≤0.41d)***" | 8.2 mg  |          |                | 0.082 g                        |         |       | 0.82 g            |                    |          |          |
| Weighing Units   | gram, milligram, kilogram, mesgal, momme, Newton, ounce, pennyweight, Baht, carat, grain, pound, Tael (Hong Kong), Tael (Singapore), Tael (Taiwan), tical, tola, troy ounce, custom (1) |          |                |                                |         |       |                   |                    |          |          |
| Weighing Units, Approved Models                              | —   |          |                | ct, grain, g, mg, oz, ozt, dwt |         |       |                   |                    |          |          |
| Weighing Applications  | Weighing, Parts Counting, Percent Weighing, Check Weighing, Dynamic Weighing, Formulation, Density Determination, Totalization, Display Hold, Batch Printing                            |          |                |                                |         |       |                   |                    |          |          |
| Pan Size   | Ø 3.1 in / 80 mm  |          |                | Ø 3.5 in / 90 mm               |         |       | Ø 5.1 in / 130 mm |                    |          |          |
| Calibration  | All models feature external calibration. Models feature AutoCal™ internal calibration, except for AX.../E models  |          |                |                                |         |       |                   |                    |          |          |
| Tare Range   | To capacity by subtraction  |          |                |                                |         |       |                   |                    |          |          |
| Power Requirements   | AC Adapter Input: 100-240 VAC 0.3A 50-60 Hz AC Adapter Output: 12 VDC 0.84A   |          |                |                                |         |       |                   |                    |          |          |
| Display Type   | Full-Color Touchscreen WQVGA Graphic LCD  |          |                |                                |         |       |                   |                    |          |          |
| Display Size   | 4.3 in / 109 mm (diagonal)  |          |                |                                |         |       |                   |                    |          |          |
| Base Housing (W×H×D)   | 13.93 × 13.39 × 9.05 in / 354 × 340 × 230 mm  |          |                |                                |         |       |                   |                    |          |          |
| Communication  | RS232, USB Device, USB Host   |          |                |                                |         |       |                   |                    |          |          |
| Temperature Range  | 50°F to 86°F/10°C to 30°C   |          |                |                                |         |       |                   |                    |          |          |
| Humidity Range   | Maximum relative humidity 80 % for temperatures up to 86°F/30°C   |          |                |                                |         |       |                   |                    |          |          |
| Storage Conditions   | 14°F/-10°C to 140°F/60°C at 10% to 90% relative humidity, non-condensing  |          |                |                                |         |       |                   |                    |          |          |
| Shipping Dimensions  | 20.0 × 15.4 × 20.9 in / 507 × 387 × 531 mm  |          |                |                                |         |       |                   |                    |          |          |
| Net Weight   | 11.3 lb / 5.1 kg  |          |                |                                |         |       | 12.8 lb / 5.8 kg  |                    |          |          |
| Shipping Weight  | 17.2 lb / 7.8 kg  |          |                |                                |         |       | 18.8 lb / 8.5 kg  |                    |          |          |

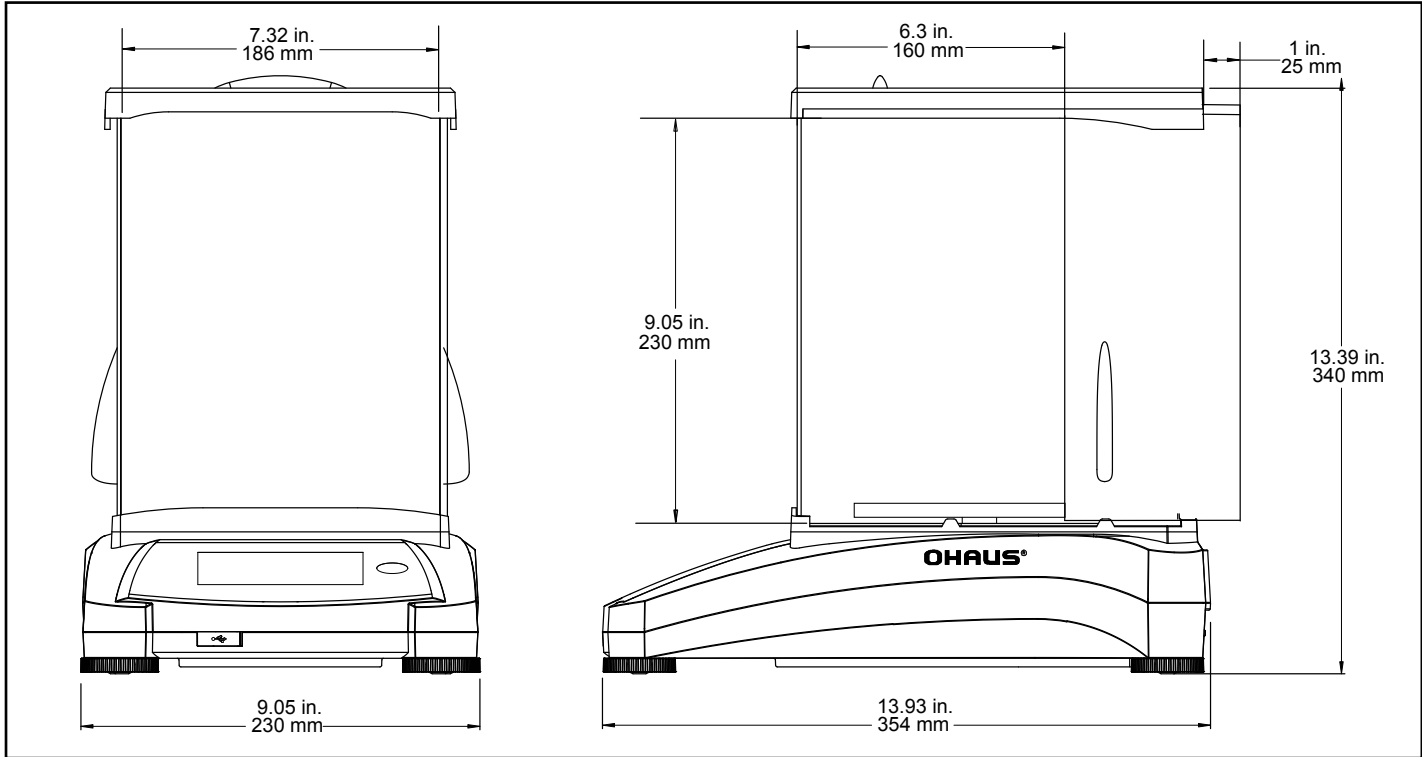
| Model  | —  | AX622    | —       | AX1502    | AX2202    | AX4202    | AX5202           | AX6202    | —        | AX4201   | AX8201    | AX12001    |    |  |
|--|--|----------|---------|-----------|-----------|-----------|------------------|-----------|----------|----------|-----------|------------|----|--|
| External Calibration   | AX422/E  | —        | AX822/E | AX1502/E  | AX2202/E  | AX4202/E  | —                | AX6202/E  | AX2201/E | AX4201/E | AX8201/E  | AX12001/E  |    |  |
| Approved Models  | —  | AX622N/E | —       | AX1502N/E | AX2202N/E | AX4202N/E | —                | AX6202N/E | —        | —        | AX8201N/E | AX12001N/E |    |  |
| Capacity (g)   | 420  | 620      | 820     | 1,520     | 2,200     | 4,200     | 5,200            | 6,200     | 2,200    | 4,200    | 8,200     | 12,000     |    |  |
| Readability d (g)  | 0.01   |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Verification Interval* e (g)                                 | 0.1  |          |         |           | —         |           |                  |           | 1        |          |           |            |    |  |
| Class*   | II   |          |         | —         |           |           |                  | II        |          | —        |           |            | II |  |
| "Repeatability (sd.), ≤5% of Full Load (g)"                  | 0.008  |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Repeatability (sd.), 5% of Full Load to Fine Range Max (g)   | —  |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Repeatability (sd.), 5% of Full Load to Full Range (g)       | 0.01   |          |         |           |           |           | 0.1              |           |          |          |           |            |    |  |
| Linearity Deviation, Typical (g)                             | ±0.006   |          |         |           |           |           | ±0.06            |           |          |          |           |            |    |  |
| Linearity Deviation (g)                                      | ±0.02  |          |         |           |           |           | ±0.2             |           |          |          |           |            |    |  |
| Stabilization Time (sec)                                     | ≤1.5   |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Sensitivity Drift (ppm/°C)                                   | 3  |          |         |           |           |           | 5                |           |          |          |           |            |    |  |
| Min-Weight (Typical) (g) (USP, K=2, U=0.10%)                 | 16   |          |         |           |           |           | 160              |           |          |          |           |            |    |  |
| "Min-Weight (Optimal) (g) (USP, K=2, U=0.10%, SRP≤0.41d)***" | 8.2 g  |          |         |           |           |           | 82 g             |           |          |          |           |            |    |  |
| Weighing Units   | gram, kilogram, mesgal, momme, Newton, ounce, pennyweight, Baht, carat, grain, pound, Tael (Hong Kong), Tael (Singapore), Tael (Taiwan), tical, tola, troy ounce, custom (1) |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Weighing Units, Approved Models                              | ct, grain, g, oz, ozt, lb, kg  |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Weighing Applications  | Weighing, Parts Counting, Percent Weighing, Check Weighing, Dynamic Weighing, Formulation, Density Determination, Totalization, Display Hold, Batch Printing                 |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Pan Size   | 6.9 × 7.7 in / 175 × 195 mm  |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Calibration  | All models feature external calibration. Models feature AutoCal™ internal calibration, except for AX.../E models   |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Tare Range   | To capacity by subtraction   |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Power Requirements   | AC Adapter Input: 100-240 VAC 0.3A 50-60 Hz AC Adapter Output: 12 VDC 0.84A  |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Display Type   | Full-Color Touchscreen WQVGA Graphic LCD   |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Display Size   | 4.3 in / 109 mm (diagonal)   |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Base Housing (W×H×D)   | 13.93 × 3.94 × 9.05 in / 354 × 100 × 230 mm  |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Communication  | RS232, USB Device, USB Host  |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Temperature Range  | 50°F to 86°F/10°C to 30°C  |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Humidity Range   | Maximum relative humidity 80 % for temperatures up to 86°F/30°C  |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Storage Conditions   | 14°F/-10°C to 140°F/60°C at 10% to 90% relative humidity, non-condensing   |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Shipping Dimensions  | 22.0 × 15.5 × 11.9 in / 557 × 392 × 301 mm   |          |         |           |           |           |                  |           |          |          |           |            |    |  |
| Net Weight   | 11.3 lb / 5.1 kg   |          |         |           |           |           | 12.8 lb / 5.8 kg |           |          |          |           |            |    |  |
| Shipping Weight  | 17.2 lb / 7.8 kg   |          |         |           |           |           | 18.8 lb / 8.5 kg |           |          |          |           |            |    |  |

\*Certified models only \*\*The value for SRP is the standard deviation for n replicate weighings (n≥10)

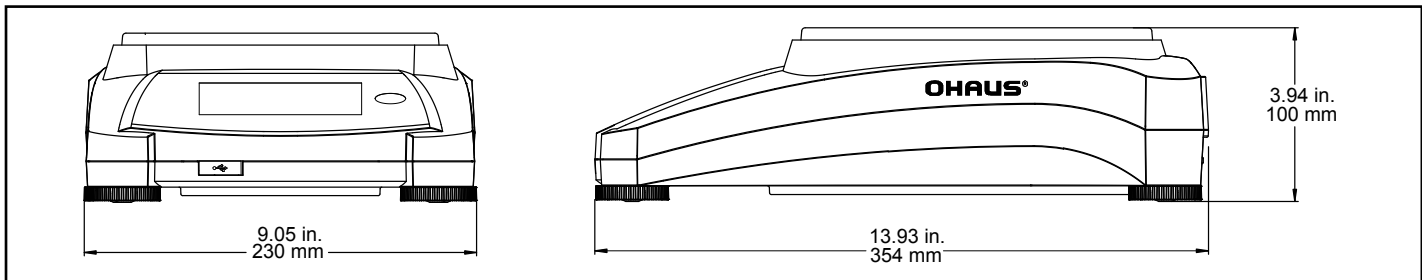
# ADVENTURER™ *Semi-Micro, Analytical, and Precision Balances*

## Outline Dimensions

### 0.1 and 1mg Models



### 0.01 and 0.1g Models



## Additional Features

RS232 interface, integrated weigh below hook, full housing in-use cover, removable stainless steel pan, die-cast metal bottom housing, security bracket, illuminated up-front level indicator, four adjustable feet, software lockout menus, stability indicator, software overload/underload indicators, user selectable environmental settings, audible indicator, user selectable brightness settings, auto dim, auto-standby, auto-off, touchscreen calibration, auto tare, user selectable operating language (14), compatible interface command with MT-SICS and ST protocol

## Compliance

**Metrology:** NIST Handbook 44, Measurement Canada Weights and Measures Regulations (Class I, nmax 220000; Class II, nmax 62000)

**Product Safety:** CAN/CSA C22.2 61010-1, UL 61010-1, IEC 61010-1

**Electromagnetic Compatibility:** FCC Part 15 Class A, ICES-001 Class A, IEC 61326-1 (emissions Class B, immunity Basic requirements)

## Accessories

|  |          |
|--|----------|
| ION-100A US Standalone Ionizer .....     | 30130302 |
| STP103 Printer .....                     | 80251992 |
| SF40A Impact Printer .....               | 30064203 |
| Auxiliary Display .....                  | 30472064 |
| Density Determination Kit .....          | 80253384 |
| Cable, USB Interface (Type A to B) ..... | 83021085 |
| Security Device (Laptop Lock) .....      | 80850043 |
| RS232 Cable, PC 9 Pin .....              | 80500525 |

