



## Flagship Balances from OHAUS

When laboratory work and research requires accuracy to the hundred-thousandth, there is simply no room for error. The Explorer series of semi-micro balances has been designed with the technology to ensure that your very specific weighing results are accurate. Sophisticated laboratories requiring accuracy and looking for innovative technology to obtain measurement results can find both in Explorer semi-micro balances.

## Unique Features Include:

- Explorer's weighing cells precision-machined from a solid metal block, together with AutoCal™ provides exceptional accuracy and durability suitable for laboratory and industrial environments.
- Features such as four-level user management with password protection, and un-editable system log plus a high level of configurability make Explorer balances well suited for regulated applications.
- A detachable terminal with a large color touchscreen, programmable IR sensors, optional built-in Ionizer & automatic doors, and a frameless draftshield make Explorer balances easy & convenient to use.

# **EXPLORER**<sup>®</sup> Semi-Micro Balances

# Intelligent Performance for Applications Requiring Extreme Accuracy

Explorer semi-micro balances offer capacities ranging from 52 g–220g with a readability of 0.01 mg. Superior craftsmanship, a High Speed Single Module weighing cell and a variety of advanced features make Explorer balances well suited for even the most complex weighing tasks.

#### **Weighing Performance**

OHAUS' signature AutoCal™ internal calibration system ensures the balance is always ready for use and eliminates the need for manual routine calibration. Explorer's internal calibration mechanism uses multiple weights and adjusts the balance at several points within the weighing range; this results in lower measurement uncertainty than a simple span calibration. Additionally, Explorer balances feature a built-in Repeatability Test, which helps evaluate the balance's performance and aids in determining a suitable minimum weight for applications requiring high accuracy.

#### Connectivity

Explorer balances include a series of communication interfaces including RS-232, USB, and Ethernet, allowing accessories such as RFID readers, impact printers, label printers and barcode scanners to be connected to the balance. A simple yet complete communication protocol allows Explorer balances to be easily connected to a PC or integrated with larger systems.

#### **Data Management**

Explorer balances are equipped with internal databases, which can be used to store, manage, and retrieve application and system data. An internal weighing mode library allows saving and loading of weighing mode configurations. Explorer balances offer two types of log files. One is the system log file which records up to 5000 changes to the balance's settings, calibrations and adjustments, and user access. The other is the calibration log which tells you when last calibrated the balance. Both log files can be exported as a noneditable PDF file and saved onto a USB memory stick. A built-in real time clock ensures that the data captured is contemporaneous.

#### **User Management**

The user management system allows a system administrator to create up to 110 users and assign them to 1 of 4 pre-existing groups with varying access rights to the balance and enforce password protection ensuring data integrity in a multi-user environment.











# **Ingenious Construction Designed to Enhance Usability**

The sleek Explorer semi-micro balance has been designed and constructed to provide a modern weighing experience as well as to bolster accuracy.

#### **Operator Experience**

Among the features that enhance the operator experience are:

- Color touchscreen display
- Four programmable touchless sensors allow the operator to perform common functions and commands with a swipe of the hand
- Modular design in which the base and display can be separated to allow the balance to fit ideally on the lab bench.
- Antistatic coated glass helps dissipate static charges in the weighing chamber which could adversely affect the weighing results

#### **Auto-Doors**

The automatic door feature, available on certain models, allows access to the weighing chamber without the need to touch the draftshield door. Placement of samples is achieved in one swift motion, eliminating the repetition of picking up and putting down samples due to a lack of free hands.

The automatic doors are also more than a user-friendly feature; they minimize vibrations caused by manual operation that can affect weighing results.

#### Ionizer

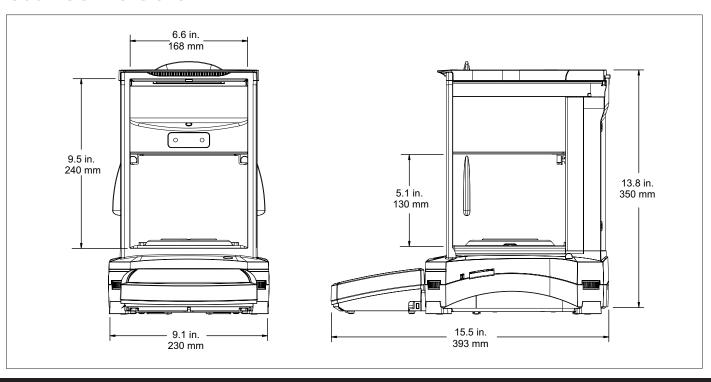
The built-in ionizer, included in Explorer automatic door models, generates bipolar ions continuously from positive and negative discharge electrodes and directs the ionized air onto the charged body to eliminate static electricity. These charges can build up in the weighing chamber and alter weighing results by as much as several milligrams.







### **Outline Dimensions**



# **EXPLORER**<sup>®</sup> Semi-Micro Balances

MODEL	EX125D	EX125	EX225D	EX225D/AD	EX225/AD
Maximum Capacity (Fine range/Full range)	52 g /120 g	120 g	120 g / 220 g 220 g		220 g
Readability d, Fine Range	0.01 mg				
Readability d, Full Range	0.1 mg	0.01 mg	0.1 mg 0.01 mg		0.01 mg
Repeatability (sd.) , ≤5% of Full Load	0.01 mg				
Repeatability (sd.), 5% of Full Load to Fine Range Max	0.02 mg				
Repeatability (sd. ) , Fine Range Max to Full Range	0.1 mg	0.02 mg	0.1 ı	mg	0.02mg
Linearity Deviation, Typical	± 0.06mg				
Linearity Deviation	± 0.1mg				
Span Calibration Points	50 g 100 g		100 g 150 g 200 g		
Calibration	Standard AutoCal™, AutoCal on Δ1.5° temperature change, 3 hours				
Automatic Door		N/A Standard* Sta		Standard*	
Weighing Units	g, mg, kg, ct ,gn, oz, ozt, lb, dwt, N, mom, tical, msg, tola, baht, Hong Kong Tael, Singapore Tael, Taiwan Tael, Custom Units 1, Custom Unit 2, Custom Unit 3				
Applications	Weighing, Parts Counting, Percent Weighing, Checkweighing, Dynamic Weighing, Filling, Totalization, Formulation, Differential Weighing, Peak Hold, Density Determination, Pipette Adjustment, Statistical Quality Control, Fill Weight Variation				
Stabilization time, Fine Range	8s				
Stabilization time, Full Range	2s	8s	2:	S	8s
Sensitivity Temp. Drift	0.50 ppm / °C				
Display	5.7 in / 14.5 cm (diagonal) Full-Color touch screen				
Interface	Standard connectivity: 1 USB host, 1 USB device, 1 RS232 Optional connectivity: Ethernet				
Working Environment	10°C – 30°C / 50°F – 86°F, 85% RH, non-condensing				
Storage Conditions	-14°F (10°C) to 140°F (60°C) at 10% to 90% relative humidity, non-condensing				
Power Supply	AC Adapter Input: 100 – 240 VAC 0.6 A 50/60 Hz, AC Adapter Output: 12 VDC 1.5 A				
Pan Size (diameter)	3.1 in / 80 mm				
Dimensions (W $\times$ H $\times$ D)	9 × 15.5 × 13.8 in / 230 × 393 × 350 mm				
Shipping Dimensions (W × H × D)	24.9 × 25.2 × 18.4 in / 632 × 640 × 467 mm				
Net Weight		15.4 lb / 7 kg		16.5 lb / 7.5 kg	
Shipping Weight	26.5 lb / 12 kg 27.8 lb / 12.6 kg				/ 12.6 kg

<sup>\*</sup> Two motorized doors operated by 4 sensors or onscreen button.

### **Approvals**

- Product Safety: CAN/CSA C22.2 61010-1, UL 61010-1, IEC 61010-1
- Electromagnetic Compatibility: FCC Part 15 (Class A), Industry Canada ICES-001 (Class A), IEC 61326-1, (Class B emissions, Industrial immunity)

#### Accessories

Ethernet Interface	83021082
Terminal Extension Cable	83021083
Interface Cable USB	83021085
Density Determination Kit	80253384
Security Device Kit	80850043
Dot Matrix Printer SF-40	30064203
Cable kit to connect Dot Matrix Printer .	80252571
Paper for Dot Matrix Printer	80251932
Ink Ribbon for Dot Matrix Printer	80251933
RS232 Cable, PC 9 Pin	80500525
USB Extension Cable	30215156
ION-100A Ionizer	30130302
Dust Cover	30093334

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\*ISO 9001:2008 Registered Quality Management System

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