Explorer®

Analytical, Precision, and High Capacity Balances

The OHAUS Explorer® Series has risen to the next level of ingenuity—expanding on its modern features & design to offer unmatched functionality in a line of high-performance balances unlike any other on the market.

Standard Features Include:

- **Intelligent Performance**—All Explorers have newly optimized linearity and repeatability specifications and enhanced vibration filtering for better balance stability. All models also come standard with AutoCal™ automatic internal calibration. 3×3 filtering setup ensures fast and stable weighing results. These combined enhancements improve accuracy, efficiency, and throughput.
- **Intuitive Operation**—A large color touch-screen display, icon-driven application software that features 14 unique application modes, and a 3 level adjustable angle display make Explorer the easiest to use, most advanced balance in its class today.
- **Ingenious Design**—The base and display separate for maximum flexibility in any work area. Draftshield models isolate the weighing chamber to enhance stability and speed results while offering maximum accessibility through the flip-top and expansive side doors. Hands-free entry is available with optional automated side doors.
- **Practical Features**—Explorer has four user-programmable touch free sensors to minimize cross contamination and wear and tear normally associated with repeatedly touching the balance. The Explorer EX…M Models have been designed and verified to meet or exceed the Class I and II accuracy requirements in accordance with EC Directives and EN45501.

Explorer® *Analytical, Precision, and High Capacity Balances*

Intelligent PERFORMANCE

With stabilization times up to 50% faster and superior shock protection, Explorer delivers fast, accurate, and reliable results.

- **Fast stabilization time**
  —Improves operational efficiency
  —Increases throughput
  —Improves productivity
- **Optimized linearity and repeatability specifications** —Provides accurate and repeatable results
- **Optimized vibration filtering**
  —Provides balance stability in unstable environments
- **Superior Shock and Splash Resistance**
  —2-D Protection guards balance against disruptions in service due to shock or sudden movements.
  —IP54 base enclosure protects the weighing base from damage by debris, humidity and accidental spills/splashes.*

**High Capacity Models Only*

Intuitive SOFTWARE

SmarText™ 2.0 is OHAUS' easy-to-use graphical software featuring 14 applications, virtual QWERTY and numeric keypads, and below-minimum weight indication.

- **Color VGA display with icons for simple menu navigation**
  —High resolution, 145 mm color 640 × 480 pixel display reproduces highly readable operating software
  —Resistive touch screen display quickly responds to operator's touch or stylus
- **14 built-in applications with customization capabilities to meet the varying needs in laboratory and industrial settings**
- **Minimum Weight capability with visual warning feature**
- **Virtual QWERTY keyboard and numeric keypad to quickly input GLP and GMP data and other application data**
- **User Manager with administrator capability**
- **Library function to store and recall customized applications**
- **Alternate RS232 command feature adapts the balance to existing data acquisition software**
- **External input for zero, tare or print operations via the external foot switch accessory**
- **Audible and visual feedback for touch screen input commands as well as the indication of the check weighing status**

Ingenious DRAFTSHIELD

Explorer's draftshield provides ample access and visibility to the weighing chamber through the versatile top door and side sliding doors with automated option and antistatic coated glass. Select models feature motorized side doors that open and close automatically with use of the touchless sensors on the base and display.

- **The automatic draftshield door model has a new function for automatically opening drafshield doors without touching the balance. It helps to eliminates sample residue transfer and contaminations.**
- **The unique top door has dual function which offer sliding and flip top opening mode.**
- **Side doors seamlessly glide on top-mounted bearings helping to prevent any potential bind up when balance is left uncleaned**
- **Gain access to the weighing chamber with the flexible top door which offers unobstructed access to the weighing chamber through its frameless, flip-top design which can also be opened by sliding the glass perpendicularly**

- **The expansive side entry (160 mm × 240 mm) allows you to freely place and remove large weigh boats or other large vessels in the weighing chamber**
- **Antistatic coated glass helps dissipate static charges in the weighing chamber which could adversely affect the weighing results**
- **Easy to install and remove glass panels and a stainless steel bottom make Explorer extremely easy to clean**
- **A draftshield chamber light is available when the balance is used in low lighting environments**

Practical TOUCHLESS SENSORS

Explorer features four touchless sensors for hands-free operation of print, calibration, tare, automated draftshield doors and other selectable functions

- **Hands-free operation**
  - —Improves weighing efficiency
  - —Eliminates sample residue transfer
  - —Minimizes contamination

- **Two sensors on the base* and two on the display can be set up individually to allow for remote operations**
- **The sensors can be set up to provide automated operation of the draftshield side doors and can be programmed to automatically open the opposite side door in order to support efficient and logical sample placement with your free hand.**

**Analytical and precision models only. Automatic Draftshield door operation only offered on Analytical models*

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Intelligent CALIBRATION

AutoCal™ ensures performance and assists with routine maintenance by automatically calibrating the balance daily.

- **Fully-automatic internal calibration system**
- **No need for external masses**
- **Eliminates cost to maintain external weights**
- **Self-calibrates the system when it senses a temperature change sufficient enough to affect weighing accuracy, or every 11 hours**

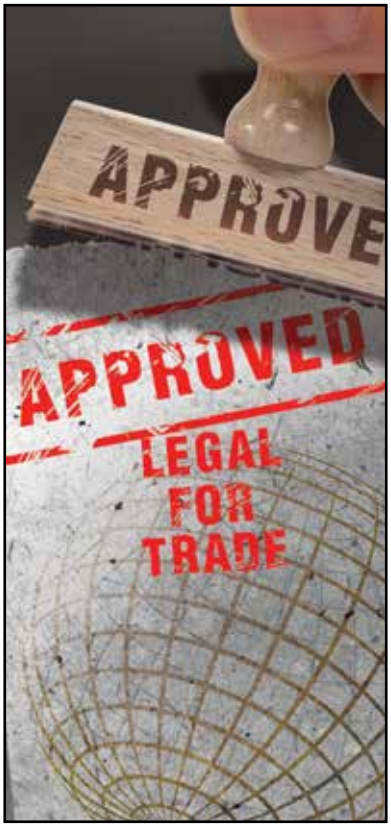
External Calibration Models Available

- **Select precision models feature traditional external calibration in which external weights are used to calibrate the balance to ensure accuracy. User defined calibration weight values offer the greatest flexibility during the calibration process.**

Intuitive USER SETUP

Explorer is the industry's most easy-to-use balance, featuring leveling assistance and instructional messaging for quick out-of-the-box setup and use.

- **Easy to view illuminated level indicator placed at the front of the balance**
- **Adjustable thumbwheels are easy to turn to level the balance**
- **Level assist screen helps users quickly identify which thumbwheels need to be adjusted to level the balance**
- **Data Transfer Function helps to output data directly into Microsoft Excel**
- **Instructional messaging during application guides users through the weighing process**
- **User information menu allows users quickly view and learn more about the available balances features**
- **Up to 13 operating languages make Explorer's Intuitive User Setup truly universal**



Practical APPROVALS

Explorer EX…M Models are designed and engineered to meet stringent OIML and NAWI Directive (Non Automatic Weighing Instruments) requirements for use in legal and prescribed applications such as in pharmaceutical laboratories, jewelry stores or QC laboratories. The Explorer EX…M Models have been designed and verified to meet or exceed the Class I and II accuracy requirements in accordance with EC Directives and EN45501.

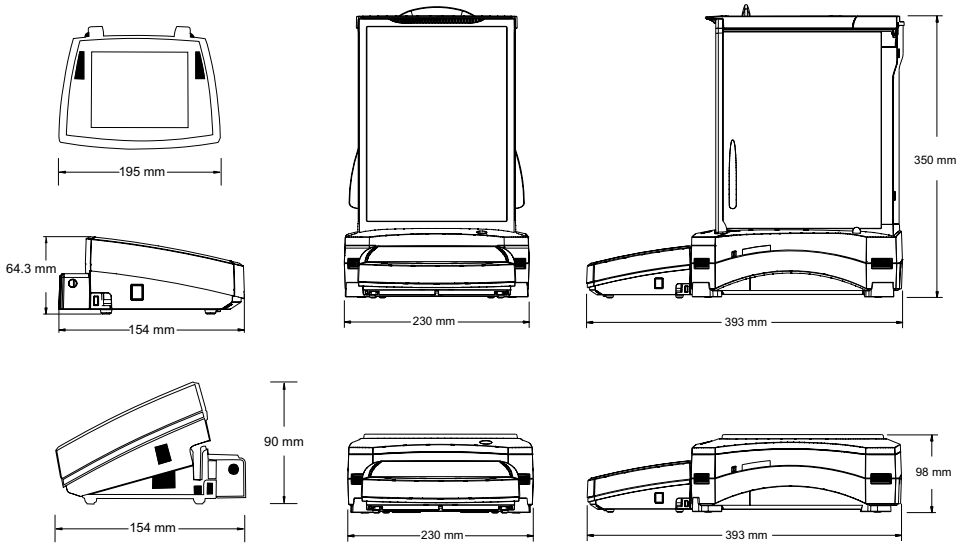
Ingenious MODULAR DESIGN

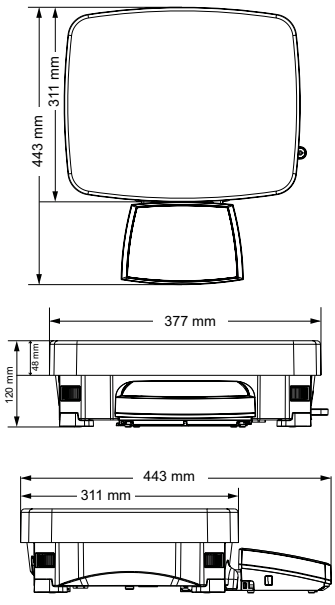
Explorer's modular design features a color touch display that can be separated from the weighing base

- **Display features:**
  - —3 level adjustable angle display
  - —Easy access communication ports including standard USB and RS232 and an optional third port of either RS232 or Ethernet
  - —Left and right side cable exit feature for customized installation capability
  - —Tower and wall mount ready for modular installation*
  - —In-use cover for protection against rugged use
  - —Extension cable accessory extends remote use up to 3 meters
- **Base features**
  - —Quadrastance™ design with four adjustable thumbwheels provides superior stability
  - —Robust die-cast metal bottom housing
  - —Accessory tower mount ready for modular installation (sold separately)
  - —Cable storage system
- **Adjustable rolling feet accessory**
  - —Allows for simple and quick movement and relocation of the balance (High Capacity models only)

Shown with optional tower mount

Outline Dimensions





Explorer® Application Software

Applications

The OHAUS Explorer's advanced applications simplify even the most complex laboratory measurements. Whether it's determining the difference between initial and residual weights or calculating the density of solids and liquids, Explorer eliminates the need for time consuming manual calculations and data logging. The high resolution display and innovative user interface make balance setup and application use effortless.

Displays your current application. One-touch drop down menu shows additional application choices

Touch to change your application settings

Quickly store and recall your library data of regularly used items

Need help? Just tap the Info button for built-in assistance

Easy-to-follow text prompts tell you what to do next

Battery life indicator when powered by optional battery pack (for High Capacity models only)

Large weigh results can be viewed at any angle

Press the weighing unit to change the unit of measure (activate in Weighing Units menu)

Results area shows pertinent application information (varies by application)

Fill and capacity bar indicators assure you are always in range (indicators vary by application)

Soft keys are application specific

Seven quick keys make balance operation a breeze!

Press Menu to choose applications, change user settings, balance setup and much more!

Standard Apps Include:

Weighing
Determine the weight of items in the selected unit of measure. Minimum Weight feature is also available.

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

Dynamic Weighing
Weigh an unstable load. Balance takes an average of weights over a time period.

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

Differential Weighing
Store sample weights and calculate the difference between initial weights and final weights.

Peak Hold
Capture and store highest weight in a series. Both stable and unstable weights are captured.

Parts Counting
Count samples of uniform weight. Choose Standard Counting, Check Counting, or Fill Counting.

Pipette Adjustment*
Check pipette values by weight analysis, with built-in water density table.

Check Weighing
Compare the weight of a sample against target limits. Choose from Standard, Nominal-weight, or Nominal-Percent.

Filling
Fill a container to a target weight. Progress bar displays filling status.

Formulation
For compounding and recipe making. The number of components can be from two to 99.

Density Determination
Determine density of solids more dense than water, solids less dense than water, liquids, or porous material.

Ingredient Costing
Determine cost of formula or recipe based on known cost/quantity of components or ingredients.

SQC
Monitor and/or control processes to eliminate under and over filling.

**Pipette Adjustment App not available on High Capacity models.*

Explorer® *High Capacity Balances*

Shown with optional rolling feet and tower mount

High Capacity Models

The Explorer series includes three high-capacity precision models with capacities up to 35 kg. Explorer high-capacity balances offer the same intuitive features, such as AutoCal™ and a 1 second stabilization time, with additional functions and attributes to support higher capacity weighing applications.

Modular Design

- **145 mm color VGA touch screen optimizes viewing and menu navigation**
- **Two sensors on display offer hands-free operation**
- **The display can be separated from the base up to 1.5 meters in order to fit operational needs in almost any workspace. A 3 meter cable is also available when additional flexibility is needed.**

Superior protection in rugged or unstable environments

- **With a die-cast metal base, 377 × 311 mm stainless steel pan and thick metal housing, Explorer High Capacity is built to withstand daily wear and tear**
- **2-D Protection prevents shock and damage associated with movement and forces applied to the balance**
- **IP54 base enclosure protects the weighing base from damage by debris, humidity and accidental spills/splashes. (High Capacity models only)**

High Capacity Accessories for Added Efficiency

- **Adjustable rolling feet provide assistance in easily moving the balance**
- **Rechargeable battery option provides 10 hours of operation away from a power source**

Model	**EX12001**	**EX24001**	**EX35001**
Type Approved	**EX12001M**	**EX24001M**	**EX35001M**
Capacity (g)	12000	24000	35000
Readability (g)	0.1	0.1	0.1
Verification Interval, Approved Models	1	1	1
Class, Approved Models	II	II	II
Repeatability std (g)	±0.1	±0.1	±0.1
Linearity (g)	±0.2	±0.2	±0.2
Stabilization TIme	≤1	≤1	≤1
Sensitivity Draft (PPM/°C)	3	3	3
Typical Min-Weight (USP, K=3, U=0.1%)	210g	210g	210g
Typical Min-Weight (GLP K=2, U=0.1%)	140g	140g	140g
Weighing Applications	Weighing, Percent Weighing, Parts Counting, Check Weighing, Dynamic/Animal Weighing, Filling, Totalization, Formulation, Differential Weighing, Density Determination, Peak Hold, Ingredient Costing, SQC		
Weighing Units	g, kg, ct, gn, lb, oz , ozt, N, dwt, hkt, sgt, twt, mom, tical, msg, tola, Custom Unit 1, Custom Unit 2, Custom Unit 3		
Weighing Units, Approved Models	g, kg, ct		
Pan Size (in/cm)	377 × 311 mm		
Calibration	AutoCal™ internal calibration		
Tare Range	To capacity by subtraction		
Power Requirement	Power Input 100-240 VAC 0.5-0.25A 47-63 Hz, Power Output: 24 VDC, 0.63 A, 15W		
Display Type	Full-color VGA graphic display, 4-wire resistive touch screen		
Display Size	145 mm (diagonal)		
Display Housing (W × H × D)	195 × 90 × 154 mm		
Base Housing (W × H × D)	377 × 120 × 443 mm		
Communication	Standard RS232, USB, Optional Ethernet, 2nd RS232		
Operating Temperature Range	10°C to 30°C		
Operating Humidity Range	15% to 80% at 30°C, decreasing linearly to 50% at 40°C, non-condensing		
Storage Conditions	-10°C to 60°C at 10% to 90% relative humidity, non-condensing.		
Net Weight	10 kg		
Shipping Weight	12.5 kg		
Shipping Dimensions	665 × 525 × 330 mm		

Explorer® Analytical and Precision Balances

Model	EX124	EX224	EX324	EX223	EX423	EX623	EX1103	EX2202	EX4202	EX6202	EX10202	EX6201	EX10201
Automatic Door	EX124/AD	EX224/AD	EX324/AD	—	—	—	—	—	—	—	—	—	—
External Calibration	—	—	—	EX223/E	EX423/E	—	—	EX2202/E	EX4202/E	EX6202/E	—	EX6201/E	—
Type Approved	EX124M/AD	EX224M EX224M/AD	EX324M EX324M/AD	—	EX423M	—	EX1103M	—	EX4202M	—	EX10202M	—	EX10201M
Capacity (g)	120	220	320	220	420	620	1100	2200	4200	6200	10200	6200	10200
Readability (g)	0.0001			0.001				0.01				0.1	
Verification Interval*	—	1mg		—	0.01g	—	0.01g	—	0.1g	—	0.1g	—	0.1g
Class*	—	I		—	II	—	I	—	II	—	I	—	I
Repeatability std (g)	±0.0001			±0.001				±0.01				±0.1	
Linearity (g)	±0.0002			±0.002				±0.02				±0.2	
Stabilization Time (sec)	≤2		≤3	≤1.5				≤1					
Sensitivity Drift(ppm/°C)	1.5			3								5	3
Typical Min-Weight (USP, K=3, U=0.1%)	0.24g	0.24g	0.24g	2.1g	2.1g	2.1g	2.1g	21g	21g	21g	21g	210g	210g
Typical Min-Weight (GLP K=2, U=0.1%)	0.16g	0.16g	0.16g	1.4g	1.4g	1.4g	1.4g	14g	14g	14g	14g	140g	140g
Weighing Units	Gram, Milligram, Kilogram, Carat, Ounce, Ounce Troy, Pound, Pennyweight, Grain, Newton, Momme, Mesghal, Hong Kong Tael, Singapore Tael, Taiwan Tael, Tical, Tola, Baht, Custom Unit 1, Custom Unit 2, Custom Unit 3												
Weighing Units, Approved Models	—	mg, g, ct		—	mg, g, ct	—	mg, g, ct	—	g, kg, ct	—	g, kg, ct	—	g, kg, ct
Weighing Applications	Weighing, Percent Weighing, Parts Counting, Check Weighing, Dynamic/Animal Weighing, Filling, Totalization, Formulation, Differential Weighing, Density Determination, Peak Hold, Ingredient Costing, Pipette Adjustment, SQC												
Pan Size	Ø 90 mm			Ø 130 mm				190 × 200 mm					
Calibration	All models feature external calibration. Models except for EX…/E feature AutoCal™ internal calibration												
Tare Range	To capacity by subtraction												
Power Requirements	AC Adapter Input: 100-240 VAC 0.6A 50-60 Hz												
Display Type	Full-color VGA graphic display, 4-wire resistive touch screen												
Display Size	145 mm (diagonal)												
Display Housing (W×H×D)	195 × 90 × 154 mm												
Base Housing (W×H×D)	230 × 350 × 393 mm							230 × 98 × 393 mm					
Communication	RS232, USB												
Temperature Range	10°C to 30°C												
Humidity Range	15% to 80% at 30°C decreasing linearly to 50% at 40°C, non-condensing												
Storage Conditions	-10°C to 60°C at 10% to 90% relative humidity, non-condensing												
Net Weight	6.9 kg							4.3 kg		5 kg			
Shipping Weight	9.6 kg							6.8 kg		7.4 kg			
Shipping Dimensions	55 × 38.5 × 55.1 cm							55 × 38.5 × 29.1 cm					

* EC Type Approved models only

Compliance

- **Metrology:** EC, OIML, NTEP, Measurement Canada (Class I, 320000e; Class II, 42000e)
- **Product Safety:** IEC/EN 61010-1:2001; CAN/CSA-C22.2 No. 61010-1-04; UL Std. No. 61010-1 (2nd Edition)
- **Electromagnetic Compatibility:** EN61326-1:2006 (Class B); C-Tick; FCC, Part 15, Class A ; ICES-003
- **Environment:** RoHS; WEEE

Accessories

Tower Mount for Display 83021102
Tower Kit** 30078082
Display Extension Cable 83021083
Density Determination Kit 80253384
Draftshield Kit (0.01g, 0.1g, excluding High Capacity models) 83021084
Security Device (Cable & Lock) 80850000
Security Device (Laptop Lock) 80850043
Interface Cable, USB (Type A to B) 83021085
Second RS232 Kit 83021081
RS232 Cable and Adapter to 80251992 Printer 80252581

Ethernet Kit 83021082
External Rechargeable Battery Pack** 30041295
Foot Switch Kit 83021086
RS232 Cable, PC 25 Pin 80500524
RS232 Cable, PC 9 Pin 80500525
SF40A Impact Printer 30045641
Compact Thermal Printer 80251992
Paper for Dot Matrix Printer 12120714
Ink Ribbon for Dot Matrix Printer 12120798
Adjustable Rolling Feet** 30041470
OHAUS DAS Software 80253300
Auxiliary Display PAD7 80251396

**High Capacity models only

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ISO 9001:2008
Registered Quality Management System

OHAUS®