



### ***Affordable Balance to Achieve Reliable Results***

The Pioneer PX combines essential weighing functionality with competitive performance, offering high accuracy and repeatability for applications in laboratory, industrial and education settings. The PX is affordably priced, intuitively designed for intelligent operation with a second line display for additional information, and USB and RS-232 connectivity for easy communication.

#### ***Unique Features:***

- The PX offers high accuracy and repeatability for essential weighing applications in laboratory, industrial and education settings at an economical price point.
- Featuring a cast metal lower housing, sub-pan and stainless steel weighing pan, the PX is durably constructed for versatile, long-term use.
- Pioneer features a second line display for additional information or guidance, a static removal bar for convenient grounding, and USB connectivity.

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

## GLP/GMP and Password Protection

A real-time clock (RTC) keeps accurate time, even during power loss. GLP/GMP data output capability allows for sample name, project, user and balance IDs to be recorded, helping to meet traceability and compliance requirements.

Password protection reduces the potential risk of accidental or unauthorized changes in balance settings such as date and time, external calibration, print settings etc.



## Multiple Application Modes

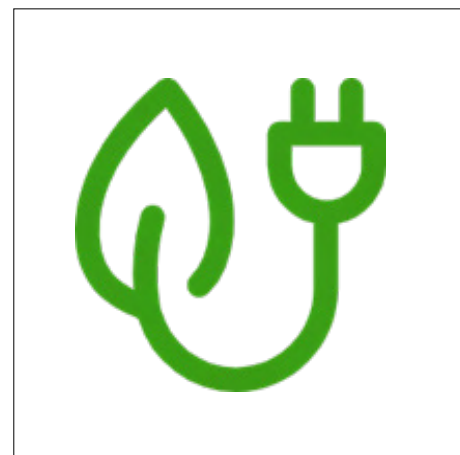
The PX features six standard modes including Weighing, Parts Counting, Percent Weighing, Dynamic Weighing, Density Determination and Formulation.

Equipped with USB and RS232 connectivity ports, the PX allows for easy communication with a PC, impact printer or a Zebra label printer.



## Power Saving Functions

The PX features power saving functions that makes it environmentally friendly. The auto-off and other brightness setup will save the electricity when the balance is not used.



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Durably constructed of cast metal lower housing, metal sub-pan and stainless steel weighing pan for long-term use.

A static removal bar (constructed of permanent static electric dissipative ABS) provides a convenient grounding location.

RS-232 and USB device ports allow for easy connectivity to PCs and PLCs. Equipped with a security lock to prevent unauthorized use.



Large viewing angle with bright backlit LCD display.

2 line display provides additional information or guidance prompts to the user.

Four quick keys enable easy operation of multiple weighing modes.

| InCal™ Model                                           | PX125D**                                                                                                                                                                                           | PX85** | PX225D** | PX84     | PX124   | PX224   | PX163     | PX223   | PX323   | PX423   | PX523   | PX623   |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|----------|---------|---------|-----------|---------|---------|---------|---------|---------|
| ExCal Model                                            | -                                                                                                                                                                                                  |        |          | PX84/E   | PX124/E | PX224/E | PX163/E   | PX223/E | PX323/E | PX423/E | PX523/E | PX623/E |
| Capacity (g)                                           | 52/120                                                                                                                                                                                             | 82     | 82/220   | 82       | 120     | 220     | 160       | 220     | 320     | 420     | 520     | 620     |
| Readability d, fine range                              | 0.01mg                                                                                                                                                                                             |        |          | -        |         |         |           |         |         |         |         |         |
| Readability d, full range                              | 0.1mg                                                                                                                                                                                              | 0.01mg | 0.1mg    | 0.1mg    |         |         | 0.001g    |         |         |         |         |         |
| Repeatability (sd.), ≤5% of full load                  | 0.01mg                                                                                                                                                                                             |        |          | 0.08mg   |         |         | 0.0008g   |         |         |         |         |         |
| Repeatability (sd.), 5% of full load to fine range max | 0.02mg                                                                                                                                                                                             |        |          | -        |         |         |           |         |         |         |         |         |
| Repeatability (sd. ), fine range max to full range     | 0.1mg                                                                                                                                                                                              | 0.02mg | 0.1mg    | 0.1mg    |         |         | 0.001g    |         |         |         |         |         |
| Linearity deviation, typical                           | ± 0.06mg                                                                                                                                                                                           |        |          | ± 0.06mg |         |         | ± 0.0006g |         |         |         |         |         |
| Linearity deviation                                    | ± 0.1mg                                                                                                                                                                                            |        |          | ± 0.2mg  |         |         | ± 0.002g  |         |         |         |         |         |
| Stabilization Time (s)                                 | 10                                                                                                                                                                                                 |        |          | 2        |         |         | 1.5       |         |         |         |         |         |
| Sensitivity Temperature Drift (PPM/K)                  | ± 2                                                                                                                                                                                                |        |          |          |         |         | ± 3       |         |         |         |         |         |
| Min-Weight (typical) (USP, K=2, U=0.10%)               | 20 mg                                                                                                                                                                                              |        |          | 0.16 g   |         |         | 1.6 g     |         |         |         |         |         |
| Min-Weight (optimal) (USP, K=2, U=0.10%, SRP≤0.41d)*   | 8.2 mg                                                                                                                                                                                             |        |          | 0.082 g  |         |         | 0.82 g    |         |         |         |         |         |
| Units                                                  | Milligram, Gram, Kilogram, Ounce, Pound, Carat, Pennyweight, Ounce Troy, Grain, Newton, Hong Kong Tael, Singapore Tael, Taiwan Tael, Momme, Tical (MM), Mesghal, Tola (India), Baht, 1 Custom unit |        |          |          |         |         |           |         |         |         |         |         |
| Assembled Dimensions (W × D × H)                       | 209 × 321 × 309 mm                                                                                                                                                                                 |        |          |          |         |         |           |         |         |         |         |         |
| Applications                                           | Basic Weighing, Parts Counting, Percent Weighing, Animal Weighing, Density Determination, Formulation                                                                                              |        |          |          |         |         |           |         |         |         |         |         |
| Pan Size (Ø)                                           | 80 mm                                                                                                                                                                                              |        |          | 90 mm    |         |         | 120 mm    |         |         |         |         |         |
| Power Supply                                           | Power Input: 100 – 240V ~ 200mA 50 – 60Hz 12 –18VA<br>Power Output: 12 VDC 0.5A                                                                                                                    |        |          |          |         |         |           |         |         |         |         |         |
| Communication                                          | RS232 and USB                                                                                                                                                                                      |        |          |          |         |         |           |         |         |         |         |         |
| Operating Temperature Range                            | Operating conditions for ordinary lab application: +10°C to 30°C<br>(operability guaranteed between +5°C and 40°C).                                                                                |        |          |          |         |         |           |         |         |         |         |         |
| Net Weight                                             | 4.5 kg                                                                                                                                                                                             |        |          |          |         |         |           |         |         |         |         |         |
| Shipping Weight                                        | 7 kg                                                                                                                                                                                               |        |          |          |         |         |           |         |         |         |         |         |
| Shipping Dimensions (W × D × H)                        | 507 × 387 × 531 mm                                                                                                                                                                                 |        |          |          |         |         |           |         |         |         |         |         |

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

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RS-232 and USB device ports allow for easy connectivity to PCs and PLCs. Equipped with a security lock to prevent unauthorized use.



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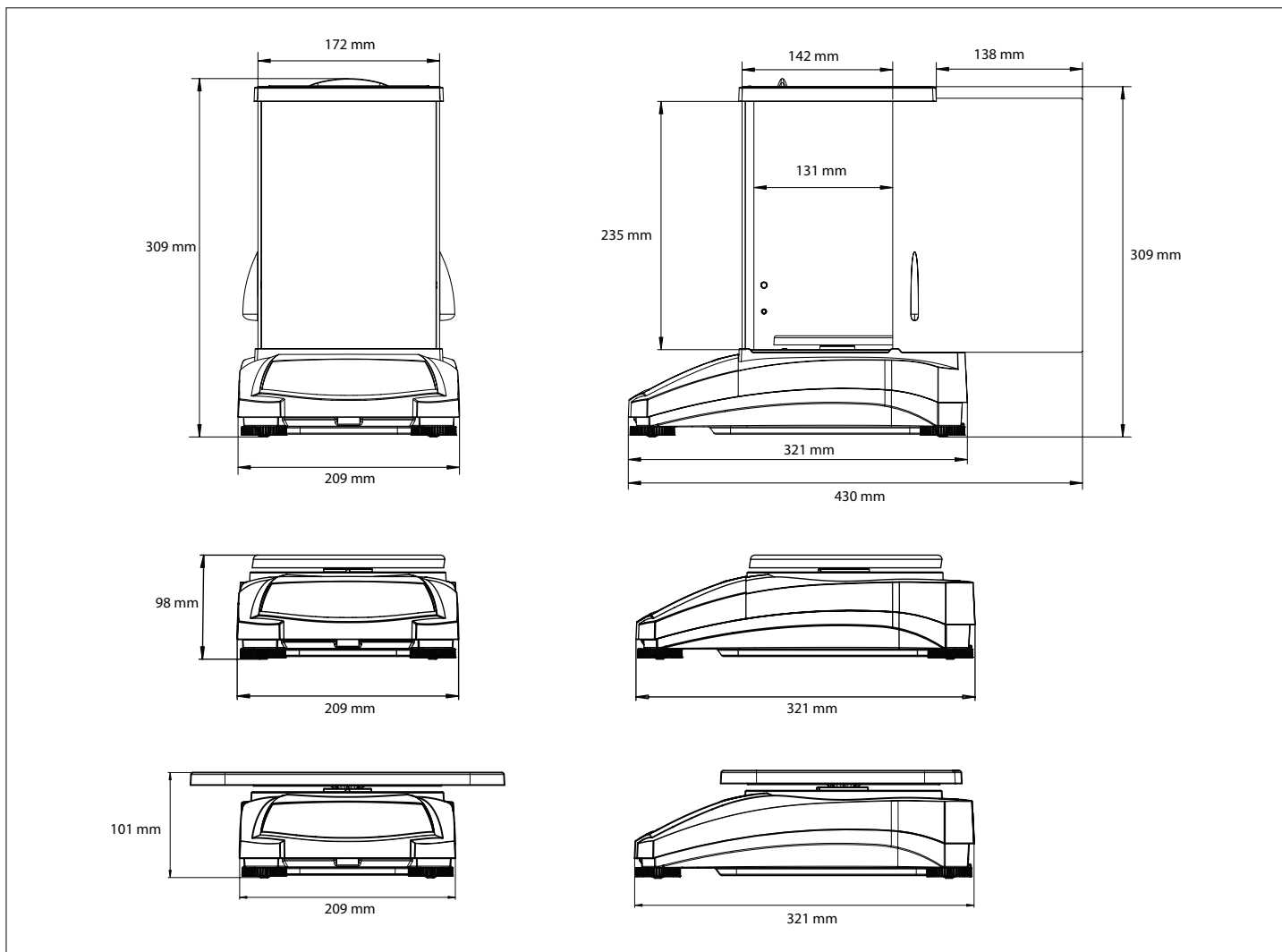
PX12001 and PX12001/E model

| InCal™ Model                                                     | PX822                                                                                                                                                                                              | PX1602   | PX2202   | PX3202   | PX4202   | PX5202   | PX6202   | PX2201   | PX4201   | -        |          | PX12001            |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------------|
| ExCal Model                                                      | PX822/E                                                                                                                                                                                            | PX1602/E | PX2202/E | PX3202/E | PX4202/E | PX5202/E | PX6202/E | PX2201/E | PX4201/E | PX6201/E | PX8201/E | PX12001/E          |
| Capacity (g)                                                     | 820                                                                                                                                                                                                | 1,600    | 2,200    | 3,200    | 4,200    | 5,200    | 6,200    | 2,200    | 4,200    | 6,200    | 8,200    | 12,000             |
| Readability (g)                                                  | 0.01                                                                                                                                                                                               |          |          |          |          |          |          | 0.1      |          |          |          |                    |
| Repeatability (sd.),<br>≤5% of full load (g)                     | 0.008                                                                                                                                                                                              |          |          |          |          |          |          | 0.08     |          |          |          |                    |
| Repeatability (sd.),<br>5% of full load to full<br>range (g)     | 0.01                                                                                                                                                                                               |          |          |          |          |          |          | 0.1      |          |          |          |                    |
| Linearity deviation,<br>typical (g)                              | ± 0.006                                                                                                                                                                                            |          |          |          |          |          |          | ± 0.06   |          |          |          |                    |
| Linearity deviation (g)                                          | ± 0.02                                                                                                                                                                                             |          |          |          |          |          |          | ± 0.2    |          |          |          |                    |
| Stabilization Time (s)                                           | 1                                                                                                                                                                                                  |          |          |          |          |          |          |          |          |          |          |                    |
| Sensitivity<br>Temperature Drift<br>(PPM/K)                      | ± 3                                                                                                                                                                                                |          |          |          |          |          |          | ± 5      |          |          |          |                    |
| Typical Minimum<br>Weight USP (g), (USP<br>K=2, U=0,10%)         | 16 g                                                                                                                                                                                               |          |          |          |          |          |          | 160 g    |          |          |          |                    |
| Optimized Minimum<br>Weight (USP,<br>U=0,10%, K=2)<br>SRP≤0,41d* | 8.2 g                                                                                                                                                                                              |          |          |          |          |          |          | 82 g     |          |          |          |                    |
| Units                                                            | Milligram, Gram, Kilogram, Ounce, Pound, Carat, Pennyweight, Ounce Troy, Grain, Newton, Hong Kong Tael, Singapore Tael, Taiwan Tael, Momme, Tical (MM), Mesghal, Tola (India), Baht, 1 Custom unit |          |          |          |          |          |          |          |          |          |          |                    |
| Applications                                                     | Basic Weighing, Parts Counting, Percent Weighing, Animal Weighing, Density Determination, Formulation                                                                                              |          |          |          |          |          |          |          |          |          |          |                    |
| Pan Size (Ø)                                                     | 180 mm                                                                                                                                                                                             |          |          |          |          |          |          |          |          |          |          | 193 x 248mm        |
| Power Supply                                                     | Power Input: 100 – 240V ~ 200mA 50 – 60Hz 12 –18VA<br>Power Output: 12 VDC 0,5A                                                                                                                    |          |          |          |          |          |          |          |          |          |          |                    |
| Assembled<br>Dimensions<br>(W × D × H)                           | 209 × 321 × 98 mm                                                                                                                                                                                  |          |          |          |          |          |          |          |          |          |          | 209 x 321 x 101 mm |
| Communication                                                    | RS232 and USB                                                                                                                                                                                      |          |          |          |          |          |          |          |          |          |          |                    |
| Operating<br>Temperature Range                                   | Operating conditions for ordinary lab application: +10°C to 30°C<br>(operability guaranteed between +5°C and 40°C).                                                                                |          |          |          |          |          |          |          |          |          |          |                    |
| Net Weight                                                       | 3.5 kg                                                                                                                                                                                             |          |          |          |          |          |          |          |          |          |          |                    |
| Shipping Weight                                                  | 5 kg                                                                                                                                                                                               |          |          |          |          |          |          |          |          |          |          |                    |
| Shipping Dimensions<br>(W × D × H)                               | 550 × 385 × 291 mm                                                                                                                                                                                 |          |          |          |          |          |          |          |          |          |          |                    |

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

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## Outline Dimensions



## Other Standard Features and Equipment

Metal base, plastic top housing, removable stainless steel pan, removable glass draftshield or side doors, Real Time Clock with GLP/GMP Data, integrated weigh-below-hook, security bracket, calibration lock and in-use cover, user-selectable environmental filters and brightness settings, auto-tare, auto-dim, user-selectable span calibration points, overload indicator, software lockout and reset menu, user-selectable communication settings and data print options, user-definable project and user IDs, software overload/underload indicator, stability indicator, 11 operating languages

## Compliance

- **Product Safety:** IEC/EN 61010-1; CAN/CSA C22.2 61010-1; UL 61010-1
- **Electromagnetic Compatibility:** IEC/EN 61326-1 Class B, Basic Environments; FCC Part 15 Class A; Canada ICES-003 Class A
- **Compliance Marks:** CE; CSA; RCM

## Accessories

|                                                             |          |
|-------------------------------------------------------------|----------|
| Auxiliary Display .....                                     | 30472064 |
| Density Kit for Solids .....                                | 80253384 |
| Sinker Glass for Density Determination .....                | 83034024 |
| USB Interface Cable .....                                   | 83021085 |
| Security Device .....                                       | 80850043 |
| RS232 Cable (25-pin) .....                                  | 80500524 |
| RS232 Cable (9-pin) .....                                   | 80500525 |
| Dust Cover .....                                            | 30093334 |
| In-use Cover .....                                          | 30372546 |
| Power Adapter for Balance .....                             | 46001724 |
| ION-100A .....                                              | 30130303 |
| PX Full Housing In-Use Cover for 0.01g and 0.1g Model ..... | 30759721 |
| ACC. Pan 12kg 300X225 PX .....                              | 30868077 |

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The management system governing the manufacture of this product is ISO 9001:2015 certified.

