Master Science

Analytical Balance, 4 Digit

Analytical Balance

The features and technical specifications of an **Analytical Balance - MSFA2204SWISS** model, commonly used in laboratory settings for precise measurements. Here's features and technical details:

Key Features:

1. Electromagnetic Force Compensation Technology**: Ensures high precision in weighing by compensating for external electromagnetic forces.**

2. Aluminum Alloy Die Cast Base and Stainless Steel Pan**: Provides durability and resistance to corrosion, making the balance robust for laboratory use.**

3. Super Bright LED Display with Backlight**: Enhances visibility, making it easier to read measurements under various lighting conditions.**

4. RS232 Interface**: Allows for data communication with other devices, facilitating data logging and analysis.**

5. Clear Glass Windshield**: Minimizes the impact of air currents on the measurement, ensuring accuracy.**

6. Overload Protection, Bubble Level Adjustment, Under Hook**: Enhances safety, accuracy, and versatility for various weighing methods.**

7. Full Capacity Subtraction**: Allows for taring, enabling measurement of net weights.**

8. Multi Weighing Units Conversion**: Supports various units like grams, milligrams, carats, and ounces, offering flexibility in applications.**

9. External Calibration**: Ensures consistent accuracy by allowing easy calibration, either manually or automatically.**

10. Weighing, Piece Counting, Percentage Weighing**: Expands functionality beyond simple weighing, useful in complex laboratory tasks.**

11. Universal Power Adapter**: Ensures compatibility with different power sources.**

12. Certified Calibration Weight Supplied as Standard**: Provides assurance of accuracy, meeting standard requirements.**

Technical Data:

- Max Capacity**: 220g**

- Accuracy Class**: High precision, suitable for laboratory use.**

- Min Readout**: 0.01g**

- Accuracy**: 0.1mg**

- Repeatability**: ±0.0002g, indicating consistency in measurements.**

- Linearity Error**: ±0.0003g, reflecting the balance's accuracy over its**

range.

- Stability Time**: ?3 seconds, allowing for quick measurements.**

- Working Temperature**: 15? to 35?, suitable for typical laboratory environments.**

- Pan Size**: 80mm or optional 90mm, adaptable for different sample sizes.**

- Dimensions**: 300*200*295 mm, compact design.**

- Power Supply**: Via power adapter, ensuring steady operation.**

- Calibration Mode**: External calibration, requiring certified weights.**

- Weight**: 6.0kg (Gross), 5.0kg (Net)**

- Packing Size**: 425*320*415 mm, considering shipping and storage.**

- Communication Interface**: RS232 with optional USB interface, expanding connectivity options.**

Analysis:
The **MSFA2204SWISS Analytical Balance** is designed for high-precision tasks, ideal for laboratories that require accurate and repeatable measurements. The balance's combination of advanced features like electromagnetic force compensation and internal calibration, along with practical aspects like overload protection and multiple weighing modes, makes it versatile for various laboratory applications. The inclusion of a calibration weight and universal power adapter as standard accessories further enhances its utility and ensures compliance with rigorous standards.