

# Sartorius Basic<sup>plus</sup>: The laboratory weighing standard for the New Millennium.



Sartorius AG, Weighing Technology

sartorius

# Sartorius Basic<sup>plus</sup>: The affordable high-tech weighing standard.

Basic<sup>plus</sup> balances from Sartorius set the laboratory standard for weighing. These balances offer exactly the right performance and convenience features that you need to accomplish the most sophisticated weighing tasks, fast and reliably. Plus, these balances offer you a price/performance ratio that is bound to enhance your bottom line.

The Basic<sup>plus</sup> features a well thought-out, field-proven and user-friendly design. This makes it considerably easy to operate for error-free results, even in the most demanding situations. The two large keys for taring, for either left- or right-handers, are prime examples of this convenient design.

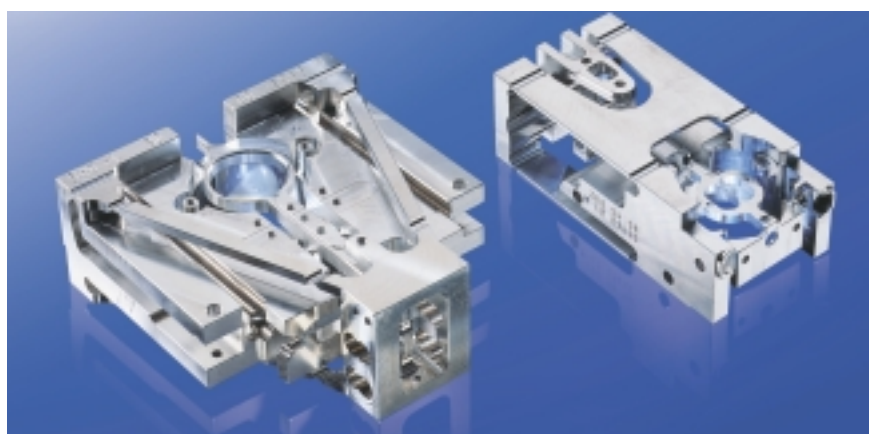
A special feature on all Basic<sup>plus</sup> analytical and semi-microbalances is the built-in, motorized weight that greatly simplifies calibration and adjustment. At a touch of the CAL key, the balance automatically self-calibrates. This means that you automatically obtain the highest weighing accuracy at all times.

In addition, many Basic<sup>plus</sup> precision balances feature a new, unique Sartorius weighing system. It's called the Double Lever System, or DLS, for short based on its special force transmission design.

With this patented system, Sartorius sets the technological standards – for the new millennium.

Just like the proven monolithic systems in Sartorius' analytical and semi-

The reasons for these considerable advantages are twofold: the number of individual parts has been reduced by more than 70% and the mechanical construction has been



Monolithic technology in semi-micro- and analytical balances

Monolithic technology in many precision balances featuring the Double Lever System

microbalances, this new system is cut from a single block of a special, highly rugged aluminum alloy using high-speed 21st century milling technology.

The DLS monolithic system offers unbeatable advantages for daily use:

- Excellent metrological specifications and incredibly fast response time
- Unfailing reliability and near-zero susceptibility to interference

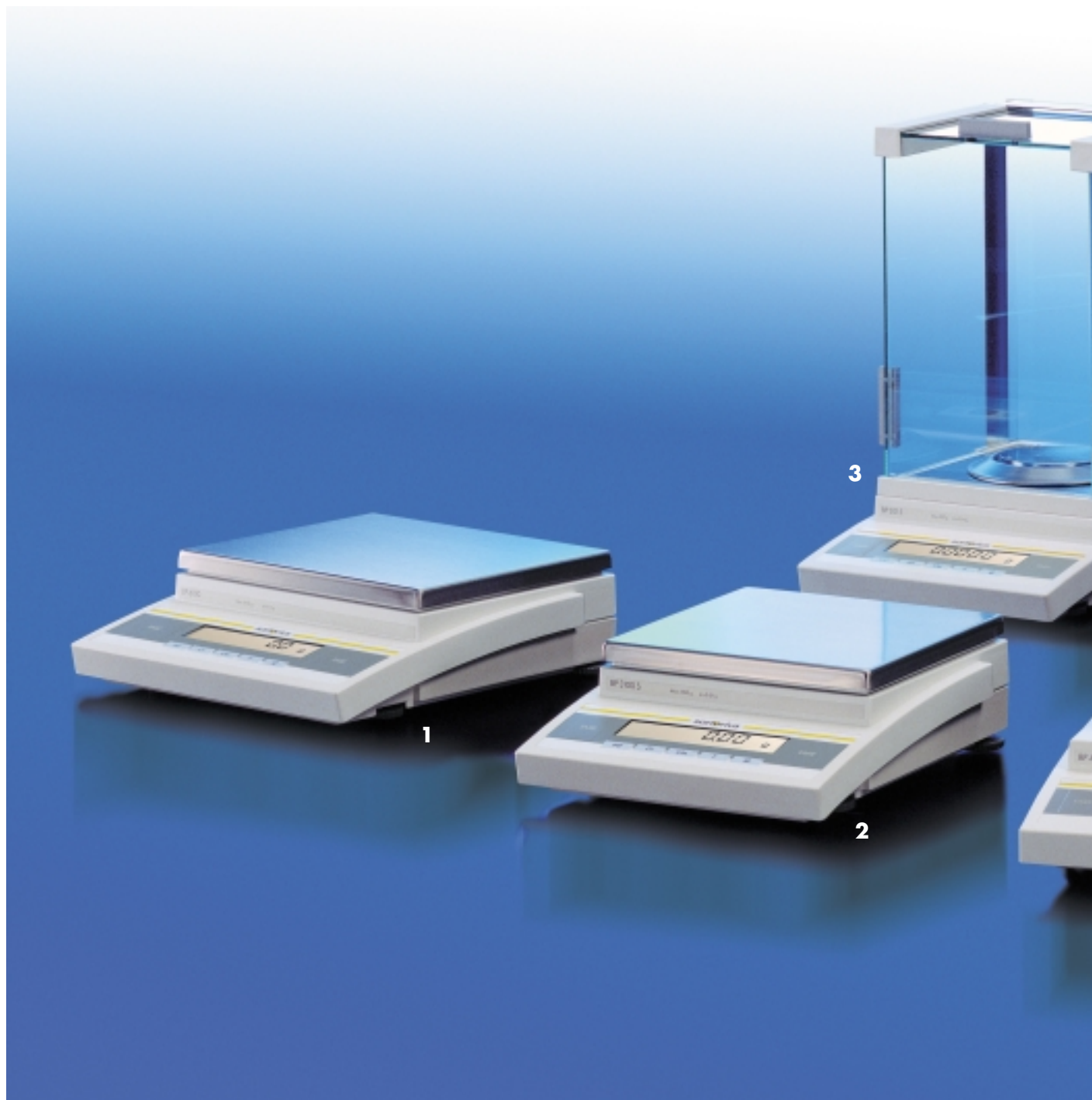
designed to last for years, providing trouble-free operation.

From 0.01 mg to 34 kg, the Sartorius Basic<sup>plus</sup> Series provides the right choice of balance for nearly any standard laboratory application.

## Overview of the standard Basic<sup>plus</sup> features:

- Bidirectional RS-232 interface port
- Built-in, motorized calibration weight (all analytical and semi-microbalances)
- Hanger for below-balance weighing (up to 8.1 kg)
- Overload protection
- ISO/GLP-compliant printing capability (in combination with the YDP03-OCE printer)
- Application programs: counting; weighing in %; net-total; animal weighing; mass unit conversion
- IP54 protection: splashproof and protected from dust





1

**Models:**

BP8100, BP6100, BP4100, BP2100, BP8

The wide array of mid-range-capacity balances with 0.1-g and 1-g readability. Very large weighing pan.

2

**Models:**

BP4100 S, BP3100 S, BP2100 S, BP1200, BP3100 P

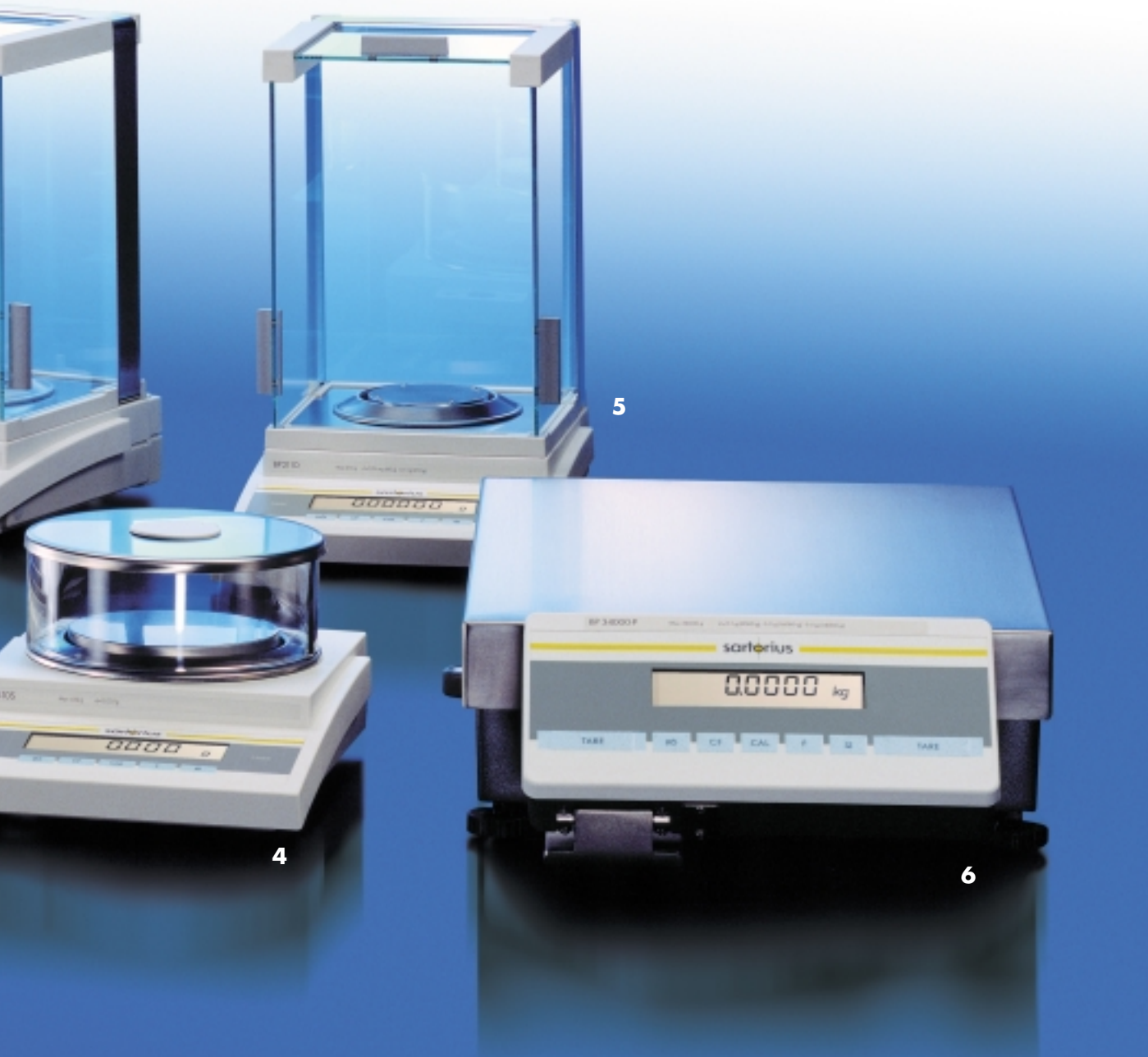
The 0.01-g all-around balances with a new weighing pan support designed to take tough daily laboratory use.

3

**Models:**

BP301 S, BP221 S, BP121 S, BP61 S

The best analytical balances in their price range with a built-in calibration weight for maximum weighing accuracy and for total convenience.



4

**Models:**

BP410 S, BP310 S, BP150, BP310 P

Without a draft shield:

BP610, BP410  
(0.01-g readability)

The precision balances for the classic 1-mg range.

5

**Model:**

BP211 D

The semi-microbalance with the unequalled, wide fine range up to 80 g and incredibly fast response time.

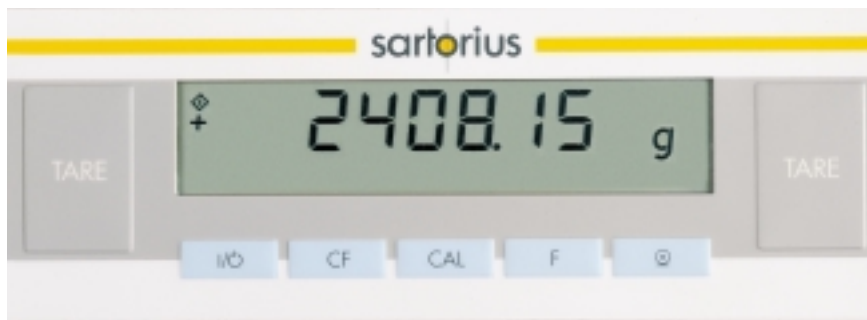
6

**Models:**

BP16000 S, BP12000 S,  
BP34000 P, BP34

The heavy-duty balances with a 0.1-g or 1-g readability and an extra-large weighing pan.

# Sartorius Basic<sup>plus</sup> offers you convenient features and high flexibility for weighing applications.



## More operating convenience.

On the left and right sides of the display are two large tare keys clearly separated for easy access. Whether you are left- or right-handed, this 2-key configuration allows smooth operation in any weighing application.

The solidly-built mechanical contacts underneath the function keys give you clear tactile feedback at the press of a key. Moreover, the high-contrast display is easy to read.

## More control.

For controlling bidirectional communication with PCs, analyzers, and other devices, the built-in RS-232 serial interface port on the Basic<sup>plus</sup> is the ideal universal standard.

All data generated by the balance can be output to an optionally available, on-line printer for compliance with ISO and GLP. This means that Basic<sup>plus</sup> gives you optimal support for integrating the balance into a quality assurance system.

## More clarity.

The all-glass draft shield on Basic<sup>plus</sup> semi-micro and analytical balances has been designed in the real world for laboratory use. User benefits include:

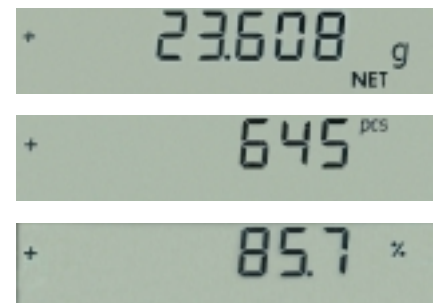
- Doors that effortlessly and quietly slide open, allowing easy access to the weighing chamber for convenient loading of a sample
- Excellent protection against drafts, ensuring the best results even in problematic environments
- Ideal design of the weighing chamber base, which has no crevices or corners, making it easy to clean thoroughly and maintain



## More flexibility.

On a Basic<sup>plus</sup>, you can weigh just about anything, from really lightweight samples to heavyweight objects.

And if you want to do more than "basic weighing," the 5 application programs will let you easily perform the following:



- Net-total for accurate formulation;
- Count large quantities of parts for fast and precise results; eliminates hand-count errors;
- Weigh in % for simple and reliable measurement of residues;
- Weigh with the averaging function for fast determination of the weights of lively animals – and for weighing under extremely unstable ambient conditions; plus,
- Toggle between any two weight units for added flexibility.

Model	Readability (mg)	Weighing Capacity (g)	Pan Size (mm)	Repeatability (<math>\langle \pm \text{mg} \rangle</math>)	Linearity (<math>\langle \pm \text{mg} \rangle</math>)
<b>Semi-Microbalance</b>					
BP211 D	0.01/0.1	80/210	Ø 80	0.02/0.1	0.03/0.2
<b>Analytical Balances</b>					
BP301 S	0.1	303	Ø 80	0.2	0.3
BP221 S	0.1	220	Ø 80	0.1	0.2
BP121 S	0.1	120	Ø 80	0.1	0.2
BP61 S	0.1	61	Ø 80	0.1	0.2
Model	Readability (g)	Weighing Capacity (g)	Pan Size (mm)	Repeatability (<math>\langle \pm \text{g} \rangle</math>)	Linearity (<math>\langle \pm \text{g} \rangle</math>)
<b>Precision Balances</b>					
BP410 S	0.001	410	Ø 115	0.001	0.002
BP310 S	0.001	310	Ø 115	0.001	0.002
BP150	0.001	150	Ø 115	0.001	0.001
BP310 P	0.001/0.002/ 0.005	60/120/ 310	Ø 115	0.001/0.001/ 0.003	0.002/0.002/ 0.005
BP4100 S	0.01	4,100	180 x 180	0.01	0.02
BP3100 S	0.01	3,100	180 x 180	0.01	0.02
BP2100 S	0.01	2,100	180 x 180	0.01	0.02
BP1200	0.01	1,200	180 x 180	0.01	0.02
BP610	0.01	610	Ø 115	0.01	0.01
BP410*	0.01	410	Ø 115	0.01	0.01
BP3100 P	0.01/0.02/0.05	600/1,200/3,100	180 x 180	0.01/0.01/0.03	0.02/0.02/0.05
BP16000 S*	0.1	16,000	417 x 307	0.1	0.2
BP12000 S*	0.1	12,000	417 x 307	0.1	0.2
BP8100	0.1	8,100	210 x 180	0.05	0.1
BP6100	0.1	6,100	210 x 180	0.1	0.1
BP4100*	0.1	4,100	210 x 180	0.1	0.1
BP2100**	0.1	2,100	210 x 180	0.1	0.1
BP34000 P*	0.1/0.2/0.5	8,000/16,000/ 34,000	417 x 307	0.1/0.2/0.5	0.3/0.3/0.3
BP34*	1	34,000	417 x 307	0.5	0.5
BP8	1	8,100	210 x 180	1	1

All models can be supplied in the verified version for legal metrology in the EU including Signatories of the European Economic Area (except for those identified by \*) \*\* 180 x 180 mm for use in legal metrology (version -OCE)

Accessories	Order No.	
Printer	YDP03-OCE	For all models
Rechargeable battery pack	YRB05Z	For all models ( $\leq 8.1$ kg capacity)
	YRB06Z	For all models ( $\geq 12$ kg capacity)
Remote display	YRD02Z (reflective)	For all models
	YRD13Z (for overhead projectors)	For all models
Draft shield weighing chamber	YDS01BP	BP410S, BP310S, BP310P, BP150
Antistatic pan	YVPO1BA	BP211D, BP301S, BP221S, BP121S, BP61S
Density determination kit	YDK01	BP221S, BP121S, BP211D, BP301S

Further accessories are available on request.

