

# Entris® II

Laboratory Balances

Simplifying Progress

SARTURIUS



# Entris® II – Best Value in its Class for Basic Weighing Tasks

# Every Sartorius balance offers quality, value, and consistency

No matter what you're weighing, the new Entris® II balance is always the right choice. Offering unrivalled value and backed by almost 150 years of German engineering expertise, the Entris® II comes in two product lines, so you can find the balance that meets your specific weighing needs.





Our Entris® II Essential line is the only balance in its class offering isoCAL, LED touch technology, and 12 built-in applications at a budget price. With over 40 models from which to choose, you will surely find a model to meet your basic weighing needs.

Our Entris® II Advanced line gives you additional value to the Entris® II portfolio, with over 38 models offering benefits such as real-time level support, integrated protection systems, CalAuditTrail, a graphic touch display and 13 built-in application programs.

Read on to learn why the Entris® II has the best value in its class for basic weighing tasks.





# Quality, Value and Consistency

### For accurate weighing results you can trust time after time

### Highest quality standards, engineered in Germany

- Highly accurate results year in and vear out
  - guaranteed via monolithic weigh cell technology, invented by Sartorius\*
- Fastest stabilization time in its class
  - using state-of-the-art weighing sensors
- Best repeatability
  - with rectangular weighing pan
- Overload protection
  - rugged design weighs up to a pre-set amount
- Guaranteed reliability
  - with the self-test "@start"
- Made in Germany

### Easy clean for operational efficiency and durability

- High chemical resistance
  - ensured using parts made from hard-wearing polybutylene terephthalate (PBT), stainless steel and glass
- Prevents cross contamination
- with wipe clean design and easy-to-remove parts

#### Effective draft shield

- Minimizes weighing errors caused by electrostatically charged samples
  - using specially coated glass parts

### Added value for the Entris® II Advanced line:

Built-in real-time level support

- Simplifies balance leveling
  - with an internal electronic level sensor that continuously monitors for proper leveling, alarm messaging when it isn't leveled, and interactive user guidance

#### Integrated protection systems

- Increases reliability of weighing results
  - with 3 configurable levels to determine valid weighing data and ensure only valid data is transferred to external devices













<sup>\*</sup> may differ for a few models

# Innovations in this Weighing Class

### For efficient, user-friendly operation



# isoCAL (internal calibration and adjustment) for total assurance of accurate weighing results

- Optimal accuracy and operating convenience
  - using fully automated internal temperature and time-controlled calibration and adjustment feature, unique in this weighing class
- Assures (SOP) compliant operation
- with self-notification if calibration is outside the normal range



# Hybrid screen for excellent readability and use

- Combines intuitive, wear resistant LED and touch technology
  - provides an easy and clear structured user interface

## Added value for the Entris® II Advanced line:

Even easier usability with graphic touch display



## Data output for dynamic weighing applications

 Configurable time interval for data output



## Added value for the Entris® II Advanced line: CalAuditTrail

Provides gapless documentation

 with automatic documentation of calibration and levelling processes, and date and time stamp



#### Plug-and-play convenience

- Automatically detects Sartorius accessories (e.g. printer, second display)
- Real "PC-direct feature" for easy connection to a PC to transfer weighing data directly into spreadsheets or documents such as Microsoft® Excel or Word



### Easily adapts to your ambient conditions

With just one click on the home screen



# Universal Application

### For future-proof assurance

#### The right model for each and every task

Finding the right model to suit any weighing application is simple. Our Entris® II Essential line offers a range of 40 models (the largest portfolio in its class), while our Entris® II Advanced line offers an additional 38 models. Depending on the model you choose, your weighing range can start as low as 60 g and go up to 12,200 g, with a readability from 0.1 mg to 1 g.

## Added Value for the Entris® II Advanced line:

**Expanded Weighing ranges** 

Readability	Basic Essential Line – BCE	Basic Advanced Line - BCA
0.1 mg	60 g, 120 g, 220 g	60 g, 120 g, 220 g, 320 g
1 mg	220 g, 320 g, 420 g, 620 g, 650 g	220g, 320 g, 420 g, 620 g, 1,200 g
10 mg	620 g, 820 g, 1,200 g, 2,200 g, 3,200 g, 4,200 g, 6,200 g	820 g, 1,200 g, 2,200 g, 3,200 g, 4,200 g, 6,200 g
0.1 g	2,200 g, 5,200 g, 8,200 g	2,200 g, 5,200 g, 8,200 g, 10,200 g, 12,200 g
1.0 g	6,200 g, 8,200 g	-

## Built-in applications with GLP | GMP compliant printout | data output

- Weighing | Dosing
- Counting
- Percentage weighing
- Mixing | Net Total
- Components | Totalizing
- Animal weighing
- Calculation | Free Factor
- Density determination
- Statistics
- Peak hold
- Check weighing
- Mass unit conversion
- Underfloor weighing feature for bigger samples

Added value for the Entris® II Advanced line:

Pipette smart test



#### Weighing chamber (where applicable)

- Highest usable weighing chamber height for easy handling of even large containers
- Convenient access to weighing pan
- Easy-to-(re)move top and side sliding doors
- Draft shield can be removed completely

### Modern, up-to-date connectivity methods

- Future-proof USB Type C interface
- Industry-proof RS232 9-pin interface
- Backwards compatibility (by using RS232 port)

## Added value for the Entris® II Advanced line:

- Enables multiple connection to external devices via a second USB Type C interface
- Enables transfer of data (such as weights, calibration reports) to USB Stick
- Allows customized printouts with up to 6 individual identifiers

## 8 built-in languages for international operation

English, German, French, Italian,
 Spanish, Portuguese, Russian, Polish

Added value for the Entris® II
Advanced line: Chinese, Japanese,
Korean, Turkish, Hungarian

## Password protection for secure operation

 Protects the balance against unintentional changes

## Added value for the Entris® II Advanced line:

Controlled access to balance settings with User Management









# Entris® II – Technical Specifications

### Analytical balances

Model	Weighing capacity	Readability	Repeatability, typical	Stabilization time, typical	Weighing pan size	Weighing chamber height*	Dimensions (W × D × H)	Calibration and adjustment	
	[a]	[mg]	[mg]	[s]	[mm]	[mm]	[mm]	Internal	External
BCA64i-1x	60	0,1	0,1	≤1,5	Ø 90	240	219×317×345	isoCAL	
BCA64-1x	60	0,1	0,1	≤1,5	Ø 90	240	219×317×345		
BCA124i-1x	120	0,1	0,1	≤1,5	Ø 90	240	219×317×345	isoCAL	
BCA124-1x	120	0,1	0,1	≤1,5	Ø 90	240	219×317×345		
BCA224i-1x	220	0,1	0,1	≤1,5	Ø 90	240	219×317×345	isoCAL	
BCA224-1x	220	0,1	O,1	≤1,5	Ø 90	240	219×317×345		
BCA324i-1x	320	0,1	O,1	≤1,5	Ø 90	240	219×317×345	isoCAL	
BCE64i-1x	60	0.1	0.1	≤1.5	Ø 90	240	219×317×345	isoCAL	
BCE64-1x	60	0.1	0.1	≤1.5	Ø 90	240	219×317×345		
BCE124i-1x	120	0.1	0.1	≤1.5	Ø 90	240	219×317×345	isoCAL	
BCE124-1x	120	0.1	0.1	≤1.5	Ø 90	240	219×317×345		
BCE224i-1x	220	0.1	0.1	≤1.5	Ø 90	240	219×317×345	isoCAL	
BCE224-1x	220	0.1	0.1	≤1.5	Ø 90	240	219×317×345		

### Milligram balances

Model	Weighing capacity	Readability [mg]	Repeatability, typical [mg]	Stabilization time, typical	Weighing pan size [mm]	Weighing chamber height*	Dimensions (W × D × H) [mm]	Calibration and adjustment	
								Internal	External
BCA223i-1x	220	1	1	≤1,0	Ø 120	240	219×317×345	isoCAL	
BCA223-1x	220	1	1	≤1,0	Ø 120	240	219×317×345		
BCA323i-1x	320	1	1	≤1,0	Ø 120	240	219×317×345	isoCAL	
BCA323-1x	320	1	1	≤1,0	Ø 120	240	219×317×345		
BCA423i-1x	420	1	1	≤1,0	Ø 120	240	219×317×345	isoCAL	
BCA423-1x	420	1	1	≤1,0	Ø 120	240	219×317×345		
BCA623i-1x	620	1	1	≤1,0	Ø 120	240	219×317×345	isoCAL	
BCA623-1x	620	1	1	≤1,0	Ø 120	240	219×317×345		
BCA1203i-1x	1.200	1	1	≤1,0	Ø 120	240	219×317×345	isoCAL	
DOE000: 4	222				~ 100	0.40	010 017 045	. 041	
BCE223i-1x	220	1	1	≤1.0	Ø 120	240	219×317×345	isoCAL	
BCE223-1x	220	1	1	≤1.0	Ø 120	240	219×317×345		
BCE323i-1x	320	1	1	≤1.0	Ø 120	240	219×317×345	isoCAL	
BCE323-1x	320	1	1	≤1.0	Ø 120	240	219×317×345		
BCE423i-1x	420	1	1	≤1.0	Ø 120	240	219×317×345	isoCAL	
BCE423-1x	420	1	1	≤1.0	Ø 120	240	219×317×345		
BCE623i-1x	620	1	1	≤1.0	Ø 120	240	219×317×345	isoCAL	
BCE623-1x	620	1	1	≤1.0	Ø 120	240	219×317×345		
BCE653i-1x	650	1	1	≤1.0	Ø 120	50	219×317×145	isoCAL	
BCE653-1x	650	1	1	≤1.0	Ø 120	50	219×317×145		

### Precision balances

Model	Weighing capacity [g]	Readability [mg]	Repeatability, typical [mg]	Stabilization time, typical	Weighing pan size	Weighing chamber height* [mm]	Dimensions (W × D × H) [mm]	Calibration and adjustment	
					[mm]			Internal	External
BCA822i-1x	820	10	10	≤0,9	182×182		219×317×94	isoCAL	
BCA822-1x	820	10	10	≤0,9	182×182		219×317×94		
BCA1202i-1x	1.200	10	10	≤0,9	182×182		219×317×94	isoCAL	
BCA1202-1x	1.200	10	10	≤0,9	182×182		219×317×94		
BCA2202i-1x	2.200	10	10	≤0,9	182×182		219×317×94	isoCAL	
BCA2202-1x	2.200	10	10	≤0,9	182×182		219×317×94		
BCA3202i-1x	3.200	10	10	≤0,9	182×182		219×317×94	isoCAL	
BCA3202-1x	3.200	10	10	≤0,9	182×182		219×317×94		
BCA4202i-1x	4.200	10	10	≤0,9	182×182		219×317×94	isoCAL	
BCA4202-1x	4.200	10	10	≤0,9	182×182		219×317×94		
BCA6202i-1x	6.200	10	10	≤0,9	182×182		219×317×94	isoCAL	
BCA6202-1x	6.200	10	10	≤0,9	182×182		219×317×94		
BCA2201i-1x	2.200	100	100	≤0,9	182×182		219×317×94	isoCAL	
BCA2201-1x	2.200	100	100	≤0,9	182×182		219×317×94		
BCA5201i-1x	5.200	100	100	≤0,9	182×182		219×317×94	isoCAL	
BCA5201-1x	5.200	100	100	≤0,9	182×182		219×317×94		
BCA8201i-1x	8.200	100	100	≤0,9	182×182		219×317×94	isoCAL	
BCA8201-1x	8.200	100	100	≤0,9	182×182		219×317×94		
BCA10201i-1x	10.200	100	100	≤0,9	182×182		219×317×94	isoCAL	
BCA10201-1x	10.200	100	100	≤0,9	182×182		219×317×94		
BCA12201i-1x	12.200	100	100	≤0,9	182×182		219×317×94	isoCAL	
BCA12201-1x	12.200	100	100	≤0,9	182×182		219×317×94		
BCE622i-1x	620	10	10	≤0.9	182×182		219×317×94	isoCAL	
BCE622-1x	620	10	10	≤0.9	182×182		219×317×94		
BCE822i-1x	820	10	10	≤0.9	182×182		219×317×94	isoCAL	
BCE822-1x	820	10	10	≤0.9	182×182		219×317×94		
BCE1202i-1x	1,200	10	10	≤0.9	182×182		219×317×94	isoCAL	
BCE1202-1x	1,200	10	10	≤0.9	182×182		219×317×94		
BCE2202i-1x	2,200	10	10	≤0.9	182×182		219×317×94	isoCAL	
BCE2202-1x	2,200	10	10	≤0.9	182×182		219×317×94		
BCE3202i-1x	3,200	10	10	≤0.9	182×182		219×317×94	isoCAL	
BCE3202-1x	3,200	10	10	≤0.9	182×182		219×317×94		
BCE4202i-1x	4,200	10	10	≤0.9	182×182		219×317×94	isoCAL	
BCE4202-1x	4,200	10	10	≤0.9	182×182		219×317×94		
BCE6202i-1x	6,200	10	10	≤0.9	182×182		219×317×94	isoCAL	
BCE6202-1x	6,200	10	10	≤0.9	182×182		219×317×94		
BCE2201i-1x	2,200	100	100	≤0.9	182×182		219×317×94	isoCAL	
BCE2201-1x	2,200	100	100	≤0.9	182×182		219×317×94		
BCE5201i-1x	5,200	100	100	≤0.9	182×182		219×317×94	isoCAL	
BCE5201-1x	5,200	100	100	≤0.9	182×182		219×317×94		
BCE8201i-1x	8,200	100	100	≤0.9	182×182		219×317×94	isoCAL	
BCE8201-1x	8,200	100	100	≤0.9	182×182		219×317×94		
BCE6200i-1x	6,200	1,000	1,000	≤0.9	182×182		219×317×94	isoCAL	
	6,200	1,000	1,000	≤0.9	182×182		219×317×94		
BCE6200-1x									
BCE8200i-1x	8,200	1,000	1,000	≤0.9	182×182		219×317×94	isoCAL	

 $<sup>^{\</sup>star}$  upper edge of the weighing pan to the lower edge of the upper draft shield panel x = term for country-specific models

# Sales and Service Contacts

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