

BALANCES



BOECO BYY MODELS

Our professional premium Semi-Micro Analytical balances with internal calibration, 5,7" colour touch-screen, infrared proximity sensors, electronic level indicator, communication interfaces and data exchange through USB storage devices.

- ▶ Innovative 2-point adjustment system
Brand new adjustment system guarantees the highest measurement accuracy. It minimizes linearity errors simultaneously providing reliable indications for the whole weighing range
- ▶ The best possible repeatability and USP regulations conformity
The best weighing accuracy and repeatability - with $sd \leq 1d$ combined with USP regulations conformity (Section 41 and 1251) make the BYY balances a new standard for mass measurement quality
- ▶ 21 CFR Part 11
Support of 21 CFR Part 11 by weighing instruments software allows replacing paper documents with electronic ones. As a result of such operation the customer is offered coherent reliable and correct electronic documents and electronic signatures.

▶ Functions:

Parts counting, checkweighing, dosing, weighing in percent, density determination (with optional kit), animal weighing, formulation, statistics, statistical quality control (SQC), differential weighing, pipettes calibration, GLP/GMP procedures, ambient condition monitoring

Menu navigation selectable in many languages

Specifiacation	BYY 21	BYY 22
Max. capacity	110 g	82 / 220 g
Minimal load	0,001 g	0,001 g
Readability	0,00001 g	0,00001 g 0,0001 g
Tare range	- 110 g	- 220 g
Repeatability	0,000012 g	0,000012 g
Linearity	± 0,00006 g	± 0,00006 g ± 0,00002 g
Pan size	grid pan ø 90 mm	grid pan ø 90 mm
Stabilization time	4 sec.	4 sec.
Calibration	Internal (automatic)	
Interface	2 x RS 232 / 2 x USB / Ethernet / 4 digital In/Outputs / WIFI	
Display	5,7" colour touch-screen	
Working temperature	+10°C - +40°C	
Power Supply	110-230 V AC, 50/60 Hz	
Netweight / Grossweight	12,7 kgs / 16,4 kgs	
Size / Packing size	573x206x302 / 715x385x485 mm	

Model	Readability	Capacity
BYY 21	0,00001 g	110 g
BYY 22	0,00001 g	82 g
(dual range)	0,0001 g	220 g



open work grid weighing pan

BOECO BYY.A MODELS

- ▶ As the above BYY models but with touch-free operation:
The BYY 21A and BYY 22A balances are equipped with motorized windshield doors operated by infrared sensors. This touch-free operation guarantees maximum comfort of operation and helps to keep the device clean.



Model	Readability	Capacity
BYY 21A	0,00001 g	110 g
BYY 22A	0,00001 g	82 g
(dual range)	0,0001 g	220 g

BOECO BXX MODELS

Our new advanced level for Semi-Micro and Analytical balances with touch-screen and internal automatic calibration.

- ▶ 5" colour capacitive touch-screen / maximum comfort of operation
 - ▶ Personal display design allows using a wide selection of widgets
 - ▶ Multilingual, interactive menu
 - ▶ Built-in IR sensors allow numerous operations (touch-free operations)
 - ▶ Conformity with GLP and GMP regulations
 - ▶ Dynamically controlled sample weight (bar graph)
 - ▶ Statistics, formulations, reports and printouts
 - ▶ Alibi memory with record of measurements
 - ▶ Complex databases
- ▶ Functions: autotest, dosing, percent weighing, parts counting, peak hold, formulation, newton unit measurement, statistics, checkweighing, infrared sensors, under hook weighing, GLP procedures, animal weighing, air density correction, density determination, ambient conditions, replaceable unit, alibi memory, mass for titrator

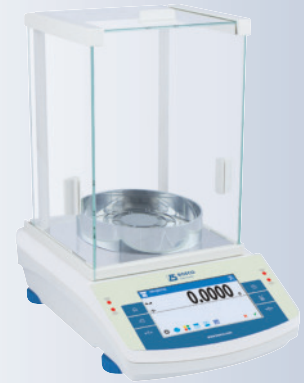
Menu navigation selectable in many languages

Specifiaction	BXX 22	BXX 30	BXX 31
Max. capacity	82 /220 g	310 g	220 g
Minimal load	0,001 g	0,01 g	0,01 g
Readability	0,00001/0,0001 g	0,0001 g	0,0001 g
Tare range	- 220 g	- 310 g	- 220 g
Repeatability	0,000015/0,0001 g	0,0001 g	0,0001 g
Linearity	± 0,00006/0,0002 g	± 0,0003 g	± 0,0002 g
Pan size	Open work pan ø 90 mm	ø 100 mm	ø 100 mm
Stabilization time	6 / 3,5 sec.	3,5 sec.	3,5 sec.
Calibration	Internal (automatic)		
Interface	2 x RS232, 2 x USB (A+B), WIFI		
Display	5" colour capacitive touch-screen		
Working temperature	+10°C - +40°C		
Power Supply	110-230 V AC, 50/60 Hz		
Netweight / Grossweight	5,4 kgs / 9 kgs		
Size / Packing size	333x206x355 / 550x460x580 mm		

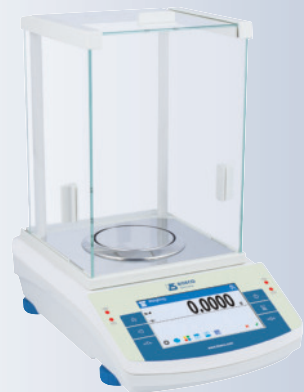


Our new advanced level touch-screen Precision balances with internal calibration.

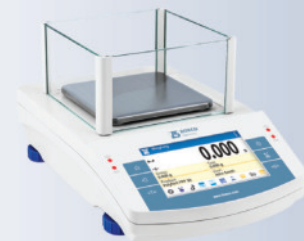
Specifiaction	BXX 40	BXX 51
Max. capacity	750 g	4500 g
Minimal load	0,02 g	0,5 g
Readability	0,001 g	0,01 g
Tare range	- 750 g	- 4500 g
Repeatability	0,015 g	0,01 g
Linearity	± 0,003 g	± 0,02 g
Pan size	128 x 128 mm	195 x 195 mm
Stabilization time	2 sec.	1,5 sec.
Calibration	Internal (automatic)	
Interface	2 x RS232, 2 x USB (A+B), WIFI	
Display	5" colour capacitive touch-screen	
Working temperature	+10°C - +40°C	
Power Supply	110-230 V AC, 50/60 Hz	
Netweight / Grossweight	3,5 / 7,1 kgs	3,6 / 7,2 kgs
Size / Packing size	333x206x100/170 / 530x440x410 mm	



Model	Readability	Capacity
BXX 22	0,00001 g	82 g
(dual range)	0,0001 g	220 g



Model	Readability	Capacity
BXX 30	0,0001 g	310 g
BXX 31	0,0001 g	220 g



Model	Readability	Capacity
BXX 40	0,001 g	750 g



Model	Readability	Capacity
BXX 51	0,01 g	4500 g

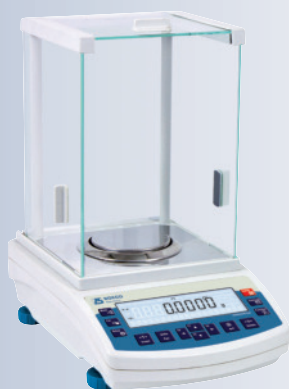
BOECO BAS PLUS MODELS

Our Standard Analytical balances with automatic internal calibration

The Plus Version with: display with enlarged characters, keypad with quick access buttons, communication interfaces 2 x USB (1 x to work with printers with PCL protocol) (and optional WIFI)

► Functions: autotest, dosing, percent weighing, totalizing, parts counting, peak hold, Newton unit measurement, statistics, checkweighing, under hook weighing, GLP procedures, animal weighing, pipettes calibration, density determination.

Menu navigation selectable in many languages



Specification	BAS 31 plus	BAS 32 plus
Max. capacity	220 g	110 g
Minimal load	0,01g	0,01g
Readability	0,0001 g	0,0001 g
Tare range	- 220 g	- 110 g
Repeatability	0,0001 g	0,0001 g
Linearity	± 0,0002 g	± 0,0002 g
Pan size	∅ 100 mm	∅ 100 mm
Stabilization time	3,5 sec.	3,5 sec.
Calibration	Internal (automatic)	
Interface	2xRS232, 2xUSB(A+B), WIFI (optional)	
Display	large LCD with backlight	
Working temperature	+10°C - +40°C	
Power Supply	110-230 V AC, 50/60 Hz	
Netweight / Grossweight	5,6 kgs / 9,5 kgs	
Size / Packing size	333x206x355 / 550x460x580 mm	

Both BASplus balances are available in an optional WIFI interface version

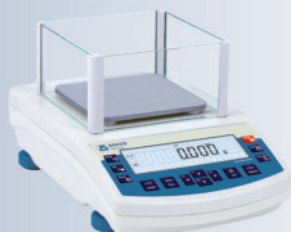
BOECO BPS PLUS MODELS

Our Standard Precision balances with automatic internal calibration

The Plus Version with: Display with enlarged characters, keypad with quick access buttons, communication interfaces 2 x USB (1 x to work with printers with PCL protocol) and optional WIFI.

► Functions: autotest, dosing, percent weighing, totalizing, parts counting, peak hold, Newton unit measurement, statistics, checkweighing, under hook weighing, GLP procedures, animal weighing, density determination

Menu navigation selectable in many languages



Specification	BPS 40 plus	BPS 41 plus	BPS 51 plus	BPS 52 plus
Max. capacity	750 g	360 g	4500 g	2100 g
Minimal load	0,02 g	0,02 g	0,5 g	0,5 g
Readability	0,001 g	0,001 g	0,01 g	0,01 g
Tare range	- 750 g	- 360 g	- 4500 g	- 2100 g
Repeatability	0,015 g	0,001 g	0,01 g	0,01 g
Linearity	± 0,003 g	± 0,002 g	± 0,02 g	± 0,02 g
Pan size	128 x 128 mm		195 x 195 mm	
Stabilization time	2 sec.		1,5 sec.	
Calibration	Internal (automatic)			
Interface	2xRS232, 2xUSB (A+B), WIFI (optional)			
Display	large LCD with backlight			
Working temperature	+10°C - +40°C			
Power Supply	110-230 V AC, 50/60 Hz			
Netweight / Grossweight	4,3 / 6,3 kgs		4,8 / 6,3 kgs	
Size / Packing size	333x206x100/170 / 530x440x420 mm			

All 4 BPSplus balances are available in an optional WIFI interface version

Model	Readability	Capacity
BAS 31 plus	0,0001 g	220 g
BAS 32 plus	0,0001 g	110 g

Model	Readability	Capacity
BPS 40 plus	0,001 g	750 g
BPS 41 plus	0,001 g	360 g



Model	Readability	Capacity
BPS 51 plus	0,01 g	4500 g
BPS 52 plus	0,01 g	2100 g

BOECO BWL MODELS

Our Basic Precision balances with external calibration and internal rechargeable accu with power charger. This makes them independent from a mains supply and therefore portable.

► Functions:

Parts counting, weighing in percent, totalising, checking, under hook weighing, animal weighing, GLP procedures, measurement in Newton.

Specifiacion	BWL 51	BWL 61	BWL 60
Max. capacity	2000 g	6000 g	10 kg
Readability	0,01 g	0,1 g	0,1 g
Tare range	- 2000 g	- 6000 g	- 10 kg
Repeatability	0,03 g	0,3 g	0,1 g
Linearity	± 0,03 g	± 0,3 g	± 0,1 g
Pan size	195 x 195 mm		
Stabilization time	3 sec.		
Calibration	external		
Interface	RS 232		
Display	LCD with backlight		
Working temperature	+15°C - +30°C		
IP rating	IP 43		
Power Supply	110-230 V AC, 50/60 Hz		
Operation time on batteries	45 hours (average time)		
Netweight / Grossweight	2,8 kgs / 4,3 kgs		
Size / Packing size	335x210x88 / 470x380x336 mm		



Model	Readability	Capacity
BWL 51	0,01 g	2000 g
BWL 61	0,1 g	6000 g
BWL 60	0,1 g	10 kg

CALIBRATION WEIGHTS

cylindrical shape, nickel-plated and polished brass, packed in a lined plastic container, with DAKKS certificate

Code	Description
BOE F1-2000	Calibration weight, 2 kg, F1
BOE F1-5000	Calibration weight, 5 kg, F1
BOE F1-10000	Calibration weight, 10 kg, F1



BOECO BLC MODELS

Our range of low-cost balances, an alternative for most basic weighing applications.

► Functions:

Simple three-key operation, Large weighing pan, Energy saving mode, Usable with single 9V battery or power supply.

Multiple weigh units: Choose from: grams, ounces, pounds/ounces, pennyweight or Troy ounces, Parts counting application.

The BLC 220 is supplied with a plastic windshield and an AC adaptor

The BLC 1500/BLC 3000 are supplied without battery and AC adaptor

Specifiacion	BLC 220	BLC 1500	BLC 3000
Max. capacity	220 g	1500 g	3000 g
Readability	0,01 g	0,1 g	1 g
Tare range	0-220 g	0-1500 g	0-3000 g
Repeatability	± 0,02 g	± 0,1 g	± 1 g
Linearity	± 0,02 g	± 0,1 g	± 1 g
Pan size	∅ 110 mm	138 x 134 mm	
Stabilization time	4 sec.	2 sec.	
Calibration	external		
Display	LCD with LED backlight		
Working temperature	+10°C - +35°C		
Power Supply	9V/100mA battery /AC adaptor		
Netweight / Grossweight	458 g / 390 g		
Size	190x140x63 / 190x140x45 mm		

Code	Description
BOE 138134	Stainless steel platform for BLC 1500 / 3000



Model	Readability	Capacity
BLC 220	0,01 g	220 g



optional st. steel platform

Model	Readability	Capacity
BLC 1500	0,1 g	1500 g
BLC 3000	1 g	3000 g

BOECO MOISTURE ANALYZER BMA H50, BMA I50

► Functions: drying modes, samples drying, water vapor permeability, halogen, humidity analysis, dry mass determination, elevated temperature level, GLP/GMP procedures.



Specification	BMA H50	BMA I50
Heating Module	Halogen emitter	Infrared emitter
Range of Drying temp	250°C	160°C
Max. capacity		50 g
Readability		0,001 g
Tare range		- 50 g
Max mass sampling		50 g
Accuracy of moisture reading		0,001 %
Repeatability		±0,05 % (sample < 2 g) ±0,01 % (sample >10 g)
Max. height of tested sample		h = 20 mm
Pan size		∅ 90 mm, h = 8 mm
Drying modes	4 drying modes (standard, quick, step, mild)	
Auto switch off options	4 options (manual, automatic, time defined, user-defined)	
Additional functions	sample identification	
Power of heating device	400 W	
Interface	1xRS232, 2xUSB (A+B), WIFI (optional)	
Display	LCD with backlight	
Working temperature	+10°C - +40°C	
Power Supply	110-240 V AC, 50/60 Hz	
Netweight / Grossweight	4,9 kgs / 6,4 kgs	
Size / Packing size	333x206x190 / 470x380x336 mm	

BOECO MOISTURE ANALYZER BMX H50, BMX I50

as the above models BMA H50 and BMA I50 but with

- LCD 5" capacitive colour touch-screen
- The drying chamber can be opened and closed automatically using button or proximity sensors.
- SMART DRY - prognosis of the Drying Process Result. It is an option dedicated for users who require fast and multiple estimation of the materials moisture content. SMART DRY method is a prognosis of the end result carried out before the drying process is completed.



Specification	BMX H50	BMX I50
Heating Module	Halogen emitter	Infrared emitter
Range of Drying temp	250°C	160°C
Max. capacity		50 g
Readability		0,001 g
Tare range		- 50 g
Max mass sampling		50 g
Accuracy of moisture reading		0,001 %
Repeatability		±0,05 % (sample 2 g) ±0,01 % (sample 10 g)
Max. height of tested sample		h = 20 mm
Pan size		∅ 90 mm, h = 8 mm
Drying modes	4 drying modes (standard, quick, step, mild)	
Auto switch off options	4 options (manual, automatic, time defined, and user-defined)	
Additional functions	sample identification	
Power of heating device	400 W	
Interface	1xRS232, 2xUSB (A+B), WIFI	
Proximity sensors	2	
Display	LCD 5" capacitive colour touch-screen	
Working temperature	+10°C - +40°C	
Power Supply	110-240 V AC, 50/60 Hz	
Netweight / Grossweight	5,2 kgs / 6,7 kgs	
Size / Packing size	333x206x190 / 595x395x420 mm	

ACCESSORIES FOR BMA/BMX MOISTURE ANALYZERS

Code	Description
BOE PAN90	Aluminium sample pans, round, $\varnothing = 90$ mm (box of 50)
BOE 440017	Glass fiber filters MG 161, 90 mm \varnothing , with binder, anorganic, 75 g/m ² (box of 50)
BOE F1-50	Calibration weight, 50 g, F1, cylindrical shape. nickel-plated and polished brass, packed in a lined plastic container, with DAkkS certificate



PRINTER FOR BOECO BALANCES

Code	Description
BOE TMU220D	Epson TM-U 220D dot-matrix printer
BOE P0151	Cable to connect the printer TM-U-220D with the BOECO balances with RS232 interface



Code	Description
BOE TMT20II	Epson TM-T20II thermal printer, incl. USB printer cable (type A to B)



ACCESSORIES

Code	Description
BOE KIT 85	Density determination KIT for solids and liquids, for balances featuring weighing pan \varnothing 85, 90 and 100 mm
BOE KIT 128	Density determination KIT for balances with weighing pan 128 x 128 mm
BOE KIT 195	Density determination KIT for balances with weighing pan 195 x 195 mm
BOE WINPC	BOECOWIN PC Software, for collecting measurement data and performing some statistical calculations. Free downloadable at www.boeco.com
BOE P0108	RS 232 cable (balance-computer)
BOE USBAB	USB cable Typ A to B (balance-computer)
BOE DC-1	Dust cover for BAS / BXX analytical balances
BOE DC-2	Dust cover for BPS 51 / BPS 52 PLUS, BXX 51 and BWL 51 / BWL 60 / BWL 61 balances

