



The New GL- | GCL-Series

Advantages

- Quality and Technology "Made in Germany"
- Overload-Protection
- Integrated Application Programs
- Units toggle by "OneTouch"



Product Description

Specifications

Int. weight circuit	All models with the designation GL...i-xx and GCL...i-xx are equipped with an internal calibration weight.
Mains connection voltage frequency	via Desktop power supply 697199, 100 – 240 Vac $\pm 10\%$, 50 – 60 Hz; 200 mA (max.)
Power consumption	maximum 16 VA; average 8 VA (including power supply)
Operating time	with external battery YRB11Z (display backlighting on) approx. 35 h

Ambient Conditions

The specifications apply when the following ambient conditions are in place:

Environment	for indoor use only
Ambient temperature*	+10°C ... +30°C (+50°F ... +86°F)
Operational capacity	guaranteed between +5°C ... +40°C (+41°F ... +104°F)

Relative humidity**	15% to 80% for temperatures up to 31°C; non-condensing, decreasing linearly to 50% relative humidity at 40°C and 20% at 50°C
Safety of electrical equipment	in accordance with EN 61010-1/IEC 61010-1 Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements
Electromagnetic compatibility	in accordance with EN 61326-1/IEC 61326-1 Electrical equipment for measurement, control, and laboratory use – EMC requirements – Part 1: General requirements
Defined immunity to interference	Suitable for use in industrial areas
Interference emission	Class B (suitable for use in residential areas and areas that are connected to a low voltage network that also supplies residential buildings). The device can therefore be used in both areas.

Verified balances in accordance with EU requirements comply with the requirements of Council Directive 2009/23/EC with EN 45501:1992 and OIML R76:2006.

* For verified balances in accordance with EU requirements, refer to the information on the balance.

** For verified balances in accordance with EU requirements, the legal regulations apply.

Technical Specifications

Standard Equipment

Levelling	Glass level indicator with air bubble for centering
Calibration	– External calibration – Internal calibration
Selectable weight units ¹⁾	Grams, Kilograms, Carats, Pounds, Ounces, Troy ounces, Hong Kong taels, Singapore taels, Taiwan taels, Grains, Pennyweights, Milligrams, Parts per pound, China taels, Mommies, Austrian carats, Tola, Baht, Mesghal, Tons, Pounds: ounces, Newton
Interface	RS232, 25-pin
Display	White backlit, high-contrast display with 15 mm digits
Standard built-in applications	Weighing, Density, Percentage, Counting, Conversion
Languages	English, French, German, Italian, Polish, Russian, Spanish
Anti-theft lock	Lockdown capability for cable or chain
Underfloor weighing	Integrated

¹⁾ Limited for verified models



**GL-Series
Standard Models**

Model	GL224-1x ¹⁾	GL124-1x ¹⁾	GL623-1x ¹⁾	GL323-1x ¹⁾	GL6202-1x ¹⁾	GL3202-1x ¹⁾	GL2202-1x ¹⁾	GL822-1x ¹⁾	GL522-1x ¹⁾	GL8201-1x ¹⁾	GL2201-1x ¹⁾
Design	3	3	4	4	5	5	5	6	6	5	5
Weighing capacity (g)	220	120	620	320	6,200	3,200	2,200	820	520	8,200	2,200
Readability (mg)	0.1	0.1	1	1	10	10	10	10	10	100	100
Repeatability – standard deviation (mg)	0.1	0.1	1	1	10	10	10	10	10	100	100
Linearity deviation (mg)	0.2	0.2	2	2	20	20	20	20	20	100	100
Sensitivity drift within +10°C...+30°C (± ppm/K)	2 · 10 ⁻⁶	2 · 10 ⁻⁶	2 · 10 ⁻⁶	5 · 10 ⁻⁶	5 · 10 ⁻⁶	10 · 10 ⁻⁶	10 · 10 ⁻⁶				
Typical stabilization time (s)	2.5	2.5	1	1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Weighing pan size (mm)	Ø 90	Ø 90	Ø 115	Ø 115	180 × 180	180 × 180	180 × 180	Ø 150	Ø 150	180 × 180	180 × 180
Weighing chamber height* (mm)	160	160	160	160	-	-	-	-	-	-	-
Net weight, approx. (kg)	4.7	4.7	4.7	4.7	3.2	3.1	3.1	2.0	2.0	2.7	2.7
Calibration	External	External	External	External	External	External	External	External	External	External	External

Model	GL224i-1x ¹⁾	GL124i-1x ¹⁾	GL623i-1x ¹⁾	GL323i-1x ¹⁾	GL6202i-1x ¹⁾	GL3202i-1x ¹⁾	GL2202i-1x ¹⁾	GL822i-1x ¹⁾	GL522i-1x ¹⁾	GL8201i-1x ¹⁾	GL2201i-1x ¹⁾
Design	3	3	4	4	5	5	5	6	6	5	5
Weighing capacity (g)	220	120	620	320	6,200	3,200	2,200	820	520	8,200	2,200
Readability (mg)	0.1	0.1	1	1	10	10	10	10	10	100	100
Repeatability – standard deviation (mg)	0.1	0.1	1	1	10	10	10	10	10	100	100
Linearity deviation (mg)	0.2	0.2	2	2	20	20	20	20	20	100	100
Sensitivity drift within +10°C...+30°C (± ppm/K)	2 · 10 ⁻⁶	2 · 10 ⁻⁶	2 · 10 ⁻⁶	5 · 10 ⁻⁶	5 · 10 ⁻⁶	10 · 10 ⁻⁶	10 · 10 ⁻⁶				
Typical stabilization time (s)	2.5	2.5	1	1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Weighing pan size (mm)	Ø 90	Ø 90	Ø 115	Ø 115	180 × 180	180 × 180	180 × 180	Ø 150	Ø 150	180 × 180	180 × 180
Weighing chamber height* (mm)	160	160	160	160	-	-	-	-	-	-	-
Net weight, approx. (kg)	4.8	4.8	4.8	4.8	3.5	3.5	3.5	2.6	2.6	3.5	3.5
Calibration	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal

* Upper edge of the weighing pan to the lower edge of the upper draft shield panel

¹⁾ Possible terms for country-specific models:

x = S: Standard balances without country-specific additions

x = SAR: Standard balances with country-specific additions for Argentina

x = SJP: Standard balances with country-specific additions for Japan

x = SKR: Standard balances with country-specific additions for South Korea

x = SUS: Standard balances with country-specific additions for USA

GL-Series

Verified Models with Country-specific Type Approval Certificate

Model	GL224i-1x ²⁾	GL124i-1x ²⁾	GL623i-1x ²⁾	GL323i-1x ²⁾	GL6202i-1x ²⁾	GL3202i-1x ²⁾	GL2202i-1x ²⁾	GL822i-1x ²⁾	GL522i-1x ²⁾	GL8201i-1x ²⁾	GL2201i-1x ²⁾
Design	3	3	4	4	5	5	5	5	5	5	5
Accuracy class	Ⓡ	Ⓡ	Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ
Type	BL-A	BL-A	BL-B	BL-B	BL-C	BL-C	BL-C	BL-C	BL-C	BL-D	BL-D
Weighing range max. (g)	220	120	620	320	6,200	3,200	2,200	820	520	8,200	2,200
Scale interval d (mg)	0.1	0.1	1	1	10	10	10	10	10	100	100
Verification scale interval e (mg)	1	1	10	10	100	100	100	100	100	1,000	100
Minimum capacity, min. (g)	0.01	0.01	0.02	0.02	0.5	0.5	0.5	0.5	0.5	5	5
Minimum capacity, min. (only for Models ...-10IN) (g)	0.1	0.1	0.2	0.2	5	5	5	5	5	5	5
Tare equalization range (subtractive)	≤100% of the maximum capacity										
Typical stabilization time (s)	2.5	2.5	1	1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Weighing pan size (mm)	∅ 90	∅ 90	∅ 115	∅ 115	180 × 180	180 × 180	180 × 180	180 × 180	180 × 180	180 × 180	180 × 180
Weighing chamber height* (mm)	160	160	160	160	-	-	-	-	-	-	-
Net weight, approx. (kg)	4.8	4.8	4.8	4.8	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Calibration	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal

* Upper edge of the weighing pan to the lower edge of the upper draft shield panel

²⁾ Possible terms for country-specific models:

x = CEU: Verified balances with EC Type Approval Certificate D12-09-014

x = OJP: Balance with Type Approval Certificate for Japan

x = OBR: Balance with Type Approval Certificate for Brazil

x = ORU: Balance with Type Approval Certificate for Russia

x = OIN: Balance with Type Approval Certificate for India

GCL-Series Standard Models

Model		GCL1103i-1x ¹⁾	GCL603i-1x ¹⁾	GCL303i-1x ¹⁾	GCL3102i-1x ¹⁾
Design		1	1	1	2
Weighing capacity	ct	1,100	600	300	3,100
Readability	ct	0.001	0.001	0.001	0.01
Repeatability (standard deviation)	ct	0.001	0.001	0.001	0.01
Linearity deviation	ct	0.002	0.002	0.002	0.02
Sensitivity drift within +10°C ... +30°C	± ppm/K	2 · 10 ⁻⁶	2 · 10 ⁻⁶	2 · 10 ⁻⁶	2 · 10 ⁻⁶
Typical stabilization time	s	1.5	1.5	1.5	1.5
Weighing pan size	mm	Ø 90	Ø 90	Ø 90	Ø 115
Weighing chamber height*	mm	160	160	160	160
Net weight, approx.	kg	4.8	4.8	4.8	4.8
Calibration		Internal	Internal	Internal	Internal

* Upper edge of the weighing pan to the lower edge of the upper draft shield panel

¹⁾ Possible terms for country-specific models:

x = S: Standard balances without country-specific additions

x = SAR: Standard balances with country-specific additions for Argentina

x = SJP: Standard balances with country-specific additions for Japan

x = SKR: Standard balances with country-specific additions for South Korea

x = SUS: Standard balances with country-specific additions for USA

GCL-Series Verified Models with Country-specific Type Approval Certificate

Model		GCL1103i-1x ²⁾	GCL603i-1x ²⁾	GCL3102i-1x ²⁾
Design		1	1	2
Accuracy class		Ⓡ	Ⓡ	Ⓡ
Type		BL-A	BL-A	BL-B
Weighing range max.	ct	1,100	600	3,100
Scale interval d	ct	0.001	0.001	0.01
Verification scale interval e	ct	0.01	0.01	0.1
Minimum capacity, min.	ct	0.1	0.1	0.2
Minimum capacity, min. (only for Models ...-10IN)	ct	1	1	2
Tare equalization range (subtractive)		≤100% of the maximum capacity		
Typical stabilization time	s	1.5	1.5	1.5
Weighing pan size	mm	Ø 90	Ø 90	Ø 115
Weighing chamber height*	mm	160	160	160
Net weight, approx.	kg	4.8	4.8	4.8
Calibration		Internal	Internal	Internal

* Upper edge of the weighing pan to the lower edge of the upper draft shield panel

²⁾ Possible terms for country-specific models:

x = CEU: Verified balances with EC Type Approval Certificate D12-09-014

x = OJP: Balance with Type Approval Certificate for Japan

x = OBR: Balance with Type Approval Certificate for Brazil

x = ORU: Balance with Type Approval Certificate for Russia

x = OIN: Balance with Type Approval Certificate for India

Optional Accessories

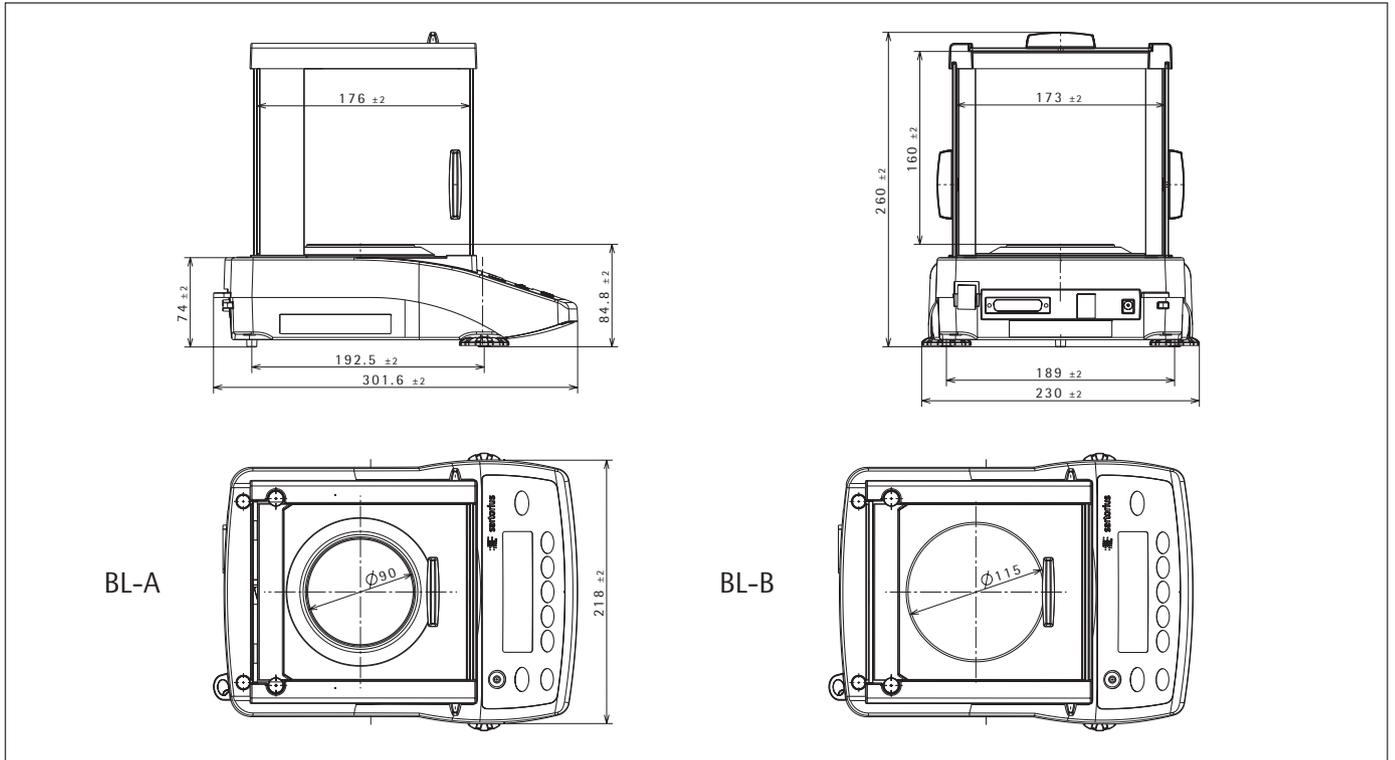
External calibration weights:

For model	Weight in grams	Accuracy class	Order no. Cylindrical Weight	Order no. Knob Weight
GL224*; GCL1103*; GL323*	200	E2	YCW5228-00	YCW522-AC-00
GL124*; GCL603*	100	E2	YCW5128-00	YCW512-AC-00
GCL303*	50	E2	YCW4528-00	YCW452-AC-00
GL623*; GCL3102*	500	E2	YCW5528-00	YCW552-AC-00
GL6202*	5,000	E2	YCW6528-00	YCW652-AC-00
GL3202*, GL2202*	2,000	E2	YCW6228-00	YCW622-AC-00
GL822*, GL522*	500	F1	YCW5538-00	YCW553-AC-00
GL8201*	5,000	F1	YCW6538-00	YCW653-AC-00
GL2201*	2,000	F2	YCW6248-00	YCW624-AC-00

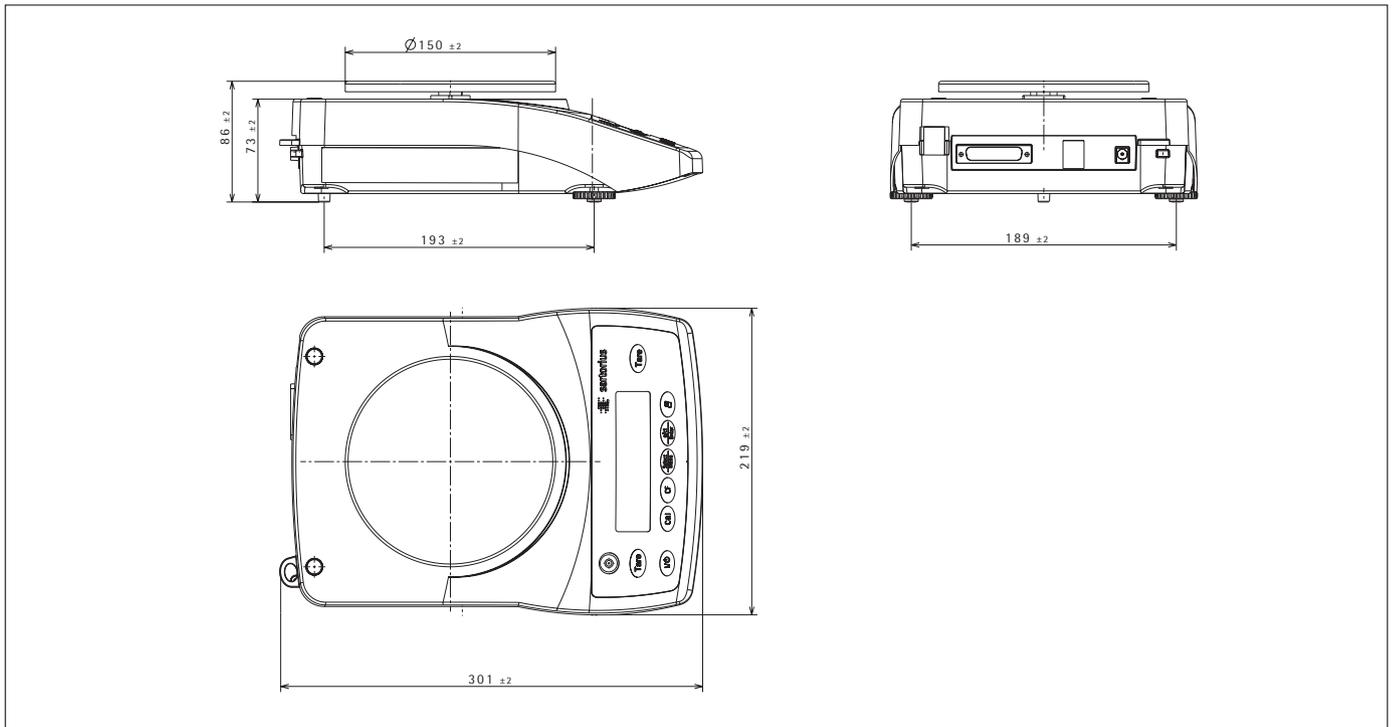
Product	Order No.
Data printer with date, time, statistics evaluation, transaction counter functions and LCD	YDP20-OCE
Remote display, reflective (for connection to data interface port)	YRD03Z
External rechargeable battery pack	YRB11Z
Density determination kit	YDK06
Data cable	
– RS232 25pin male USB-cable type A, length approx. 1.8 m	YCC01-USBM2
– RS232 25pin male 25pin female, length approx. 1.5 m	7357312
– RS232 25pin male 9pin female, length approx. 2.0 m	7357314
– RS232 25pin male 9pin female, length approx. 0.5 m	6965619
Ionizing blower for eliminating static electricity	
– 220 V	YIB01-ODR
– 110 V	YIB01-OUR
Stat-Pen anti-static device for eliminating electrostatic charges on samples and containers (100 V to 230 V, 50 60 Hz)	YSTP01
Weighing table	
– made of wood with stone plate	YWT09
– made of stone, with vibration dampening	YWT03
Wall mounting console	YWT04
In-use dust cover	
– for models with a rectangular weighing pan	6960ED01
– for models with a round weighing pan (Ø 150 mm)	6960ED02
Dust cover	
– for models with draft shield	6960BP08
Weighing bowls for Gold Balances	
– 1,000 ml, wt.: ~240 g, Ø 186 mm, h= 77 mm, stainless steel	641211
– 500 ml, wt.: ~113 g, Ø 151 mm, h= 60 mm, stainless steel	641212
– 270 ml, wt.: ~62 g, Ø 137 mm, h= 22 mm, stainless steel	YWP03G
– 350 ml, wt.: ~75 g, Ø 180 mm, h= 22 mm, stainless steel	YWP04G
Weighing bowls for Carat Balances	
– 85 ml, wt.: ~11 g, Ø 83 mm, h= 23 mm, aluminum	YWP06G
– 180 ml, wt.: ~32 g, Ø 90 mm, h= 48 mm, aluminum	YWP05G

Technical Drawings

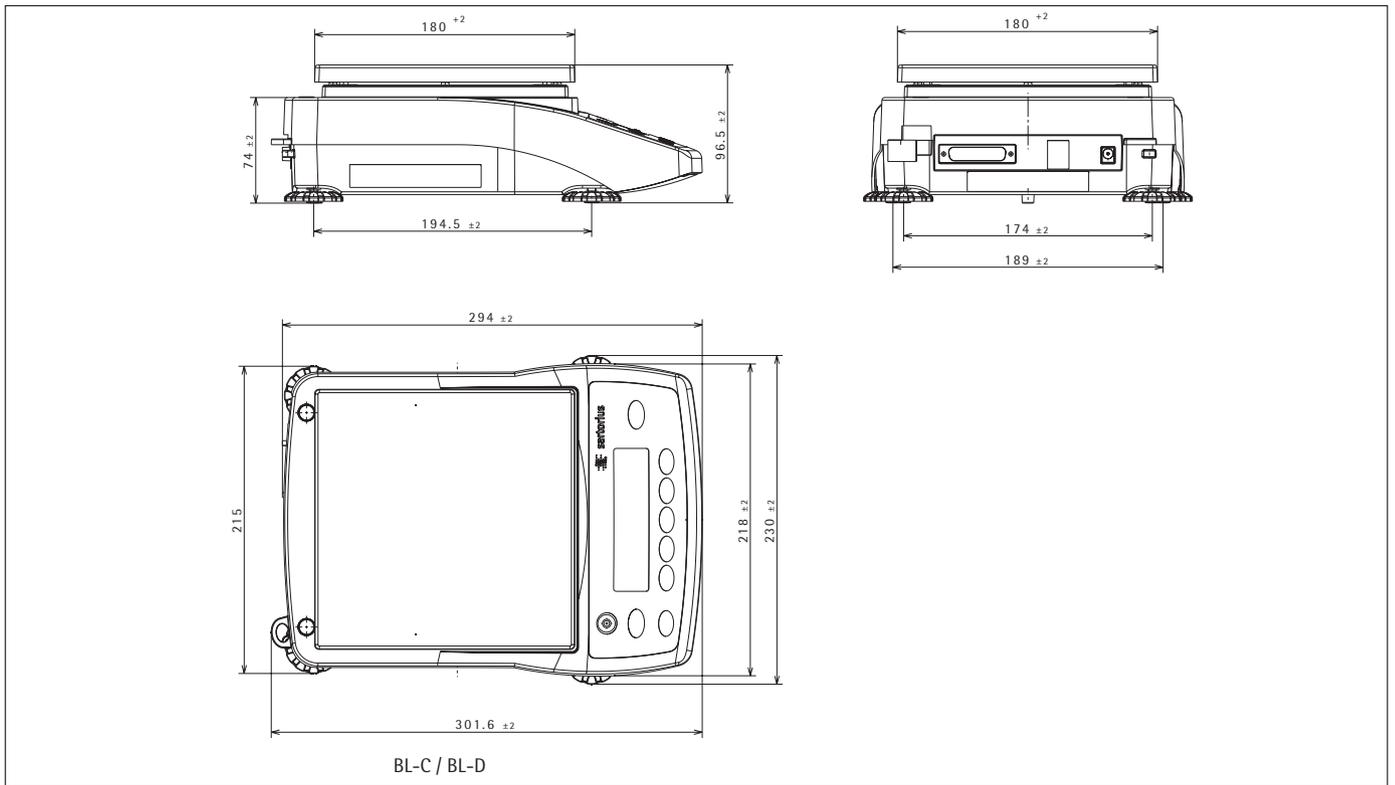
Models with a readability of 0.1 mg and 0.001 ct (Type BL-A), 1 mg and 0.01 ct (Type BL-B), in mm



Models with a readability of ≥ 10 mg (in mm) and round weighing pan



Models with a readability of ≥ 10 mg (in mm) and rectangular weighing pan



Sartorius Lab Instruments
GmbH & Co. KG
Otto-Brenner-Strasse 20
37079 Goettingen, Germany

Phone +49.551.308.0
Fax +49.551.308.3289
www.sartorius.com

USA Toll-free +1.800.635.2906
UK +44.1372.737159
France +33.1.70.62.50.00
Italy +39.039.4659.1
Spain +34.913.586.095
Russian Federation +7.812.327.53.27
Japan +81.3.3740.5408

Specifications subject to change without notice.
Copyright Sartorius Lab Instruments GmbH & Co. KG.
Printed in the EU on paper bleached without chlorine.
Publication No.: W--2116-e161003
Order No.: 98649-021-00
Ver. 10 | 2016