



## The New Semi-Micro Balances Secura<sup>®</sup>

### Benefits

- Top Performance
- Intuitive Operation
- Easy-to-Clean Design
- Ergonomic Draft Shield
- Space-saving Footprint



### Product Information

The new Sartorius semi-micro balances feature unsurpassed weighing technology available within their 5-digit class in the standard market segment today. We offer a unique selection, giving you five different models to choose from. These semi-micro balances deliver outstanding performance at an affordable price. Plus, they are backed by the excellent quality standards of products "Made in Germany".

## Technical Specifications

### AC Adapter

Sartorius AC adaptor module 6971790 with interchangeable country-specific plug-in AC adaptors

Primary 100 – 240 V~, -10% | +10%,  
50 – 60 Hz, 0.2 A

Secondary 15 V DC, ± 5%, 530 mA (max.) |  
8 Watt (max.): 0 to +40 °C and  
15 V DC, ± 5%, 330 mA (max.) |  
5 Watt (max.): 0 to +50 °C

Other data protection class II, in accordance  
with EN | IEC 60950-1 up to  
3000 m above sea level;  
IP40 as per EN | IEC 60529

### Balance

Power supply only via Sartorius AC adaptor  
module 6971790

Input voltage 12.0 ... 18.0 V DC

Power consumption 4.5 W (typically)

### Ambient Conditions

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

Environment for indoor use only

Ambient temperature \* +10 °C to +30 °C

Operational capacity guaranteed between +5 °C and  
+45 °C

Storage and shipping -10 °C to +60 °C

Elevation up to 3000 m above sea level

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 mea-  
surement, 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.

Balances verified for use in legal metrology comply with the requirements of Council Directive 2009/23/EC, EN 45501:1992, and OIML R76:2006.

\* For balances verified for use in legal metrology in accordance with EU requirements, refer to the information on the balance.

\*\* For balances verified for use in legal metrology in accordance with EU requirements, the legal regulations apply.

Standard Equipment	
APC Features	<ul style="list-style-type: none"> <li>– Monitoring of compliance with the USP minimum sample weight limits – SQmin</li> <li>– Password protection of set-up settings</li> <li>– Fully automatic temperature- and time-controlled internal calibration and adjustment – isoCAL</li> <li>– Temporary blockage of data transfer to a printer or a computer when uncertain weighing results are detected, such as a result is below the USP minimum sample weight limit, the balance is not level or isoCAL calibration   adjustment needs to be performed</li> <li>– Storage of all data of calibration procedures – Cal Audit Trail</li> </ul>
Safety Level	Three configurable levels of security
Levelling	Intelligent, optoelectronic leveling sensor with alarm function and interactive user guidance for reliable leveling
Calibration	Internal calibration isoCAL, External calibration
Selectable weight units <sup>1</sup>	Gram, kilogram, carat, pound, ounce, troy ounce, Hong Kong tael, Singapore tael, Taiwan tael, grain, pennyweights, milligram, parts per pound, China tael, mommes, Austrian carat, tola, baht, mesghal and Newton
Interface	mini USB <ul style="list-style-type: none"> <li>– Automatic recognition of Sartorius printer models YDP30 or YDP40</li> <li>– Direct data transfer to Microsoft® Windows programs</li> <li>– Programmable interval for data output</li> <li>– Data transfer protocols SBI, xBPI, table format, text format</li> </ul>

Standard Equipment	
Standard built-in applications	Weighing, Density, Percentage, Checkweighing, Peak Hold, Counting, Unstable Conditions
Special built-in lab applications	Mixing, Components, Statistics, Conversion
Languages	English, French, German, Hungarian, Italian, Polish, Portuguese, Russian, Spanish, Turkish, Chinese, Japanese, Korean
Protection	<ul style="list-style-type: none"> <li>– IP43 Protection</li> <li>– Chemical resistant finish of the housing</li> <li>– In-use cover</li> <li>– Dust cover for analytical balances</li> </ul>
Anti-theft lock	Kensington lock and lockdown capability for cable or chain

<sup>1</sup> Limited for verified models



## Secura® Semi-Micro Balances

Model		225D	125	324
Weighing capacity	g	60   120   220	60   120	320
Readability	mg	0.01   0.01   0.1	0.01   0.01	0.1
Repeatability (standard deviation)	mg	0.02   0.04   0.07	0.02   0.04	0.1
Linearity deviation	mg	0.1   0.1   0.2	0.1   0.1	0.3
Minimum weight as per USP, typical	mg	40	40	160
Sensitivity drift between +10 °C and +30 °C	± ppm/K	1	1	1
Typical stabilization time	s	6   6   2	6   6	2
isoCAL:				
– Temperature change	K	1.5	1.5	1.5
– Time interval	h	4	4	4
Display result (depending on the set filter level)	s	0.2   0.4	0.2   0.4	0.2
Weighing pan size		Ø 80 (optional Ø 90)	Ø 80 (optional Ø 90)	Ø 90
Weighing chamber height	mm	218	218	218
Net weight, approx.	kg	7.8	7.8	7.9
Dimensions, D × W × H		mm	376 × 214 × 316	
		Inch	14.8 × 8.4 × 2.4	

## Verified Models with Country-specific Type Approval Certificate Secura® Semi-Micro Balances

Model		225D-1x <sup>1</sup>	125-1x <sup>1</sup>	324-1x <sup>1</sup>
Accuracy class		Ⓡ	Ⓡ	Ⓡ
Type <sup>2</sup>		SQP-F	SQP-F	SQP-F
Max	g	120   220	120	320
Scale interval d	g	0.00001   0.0001	0.00001	0.0001
Verification scale interval e	g	0.001	0.001	0.001
Min	g	0.001	0.001	0.001
Tare (subtractive)		<100 % of the max. weighing capacity		
Minimum sample weight as per USP, typical	mg	40	40	160
Typical stabilization time	s	6   2	6	2
isoCAL:				
– Temperature change	K	1.5	1.5	1.5
– Time interval	h	4	4	4
Display result (depending on the set filter level)	s	0.2   0.4	0.2   0.4	0.2
Weighing pan size	mm	Ø 80 (optional Ø 90)	Ø 80 (optional Ø 90)	Ø 90
Weighing chamber height	mm	218	218	218
Net weight, approx.	kg	7.8	7.8	7.9
Dimensions, D × W × H		mm	376 × 214 × 316	
		Inch	14.8 × 8.4 × 12.4	

<sup>1</sup> Possible terms for country-specific models:

x = CEU: Verified balances with EC Type Approval Certificate D12-09-014 (for EU except France, Italy, and Switzerland)  
x = CFR: Verified balances with EC Type Approval Certificate D12-09-014 for France only

x = CIT: Verified balances with EC Type Approval Certificate D12-09-014 for Italy only  
x = CCH: Verified balances with EC Type Approval Certificate D12-09-014 for Switzerland only  
x = NUS: NTEP Certificate for USA  
x = CN: CMC Type Approval Certificate for China

x = OJP: Balance with Type Approval Certificate for Japan  
x = OBR: Balance with Type Approval Certificate for Brazil  
x = OAR: Balance with Type Approval Certificate for Argentina  
x = OKR: Balance with Type Approval Certificate for South Korea

x = ORU: Balance with Type Approval Certificate for Russia  
x = OIN: Balance with Type Approval Certificate for India  
x = OCA: Balance with Type Approval Certificate for Canada  
<sup>2</sup> All models with "...CN": type "SQP"

## Optional Accessories

### Printers and Communications

Premium GLP Laboratory Printer	YDP30
– Printer paper for GLP laboratory printer	69Y03285
– Endless labels for GLP laboratory printer	69Y03286

Standard Laboratory Printer	YDP40
– Printer paper for standard laboratory printer	69Y03287

Data communication cable, USB   USB A	YCC04-D09
---------------------------------------	-----------

Data communication cable, mini USB   RS232, 9-pin	YCC03-D09
---	-----------

Data communication cable, mini USB   RS232, 25-pin	YCC03-D25
--	-----------

### General

Battery pack for standard lab balances	YRB11Z
--	--------

In-use cover for semi-micro balances	6930MA03
--------------------------------------	----------

Dust cover for semi-micro balances	6960SE04
------------------------------------	----------

Weighing pan, 80 mm, slotted	YSP01SQP
------------------------------	----------

Weighing pan, 90 mm; includes conversion kit	YWP01SQP
--	----------

Filter weighing pan, 130 mm	YFW01SQP
-----------------------------	----------

Certificate of USP minimum weight	84CGNA
-----------------------------------	--------

### Density Determination

Density kit for semi-micro balances	YDK05
-------------------------------------	-------

### Calibration Weights

For lab balance model 324	YCW522-AC-02
– Proof Line knob weight 200 g, OIML class E2, including DAkKS certificate	

For lab balance models 225; 125	YCW512-AC-02
– Proof Line knob weight 100 g, OIML class E2, including DAkKS certificate	



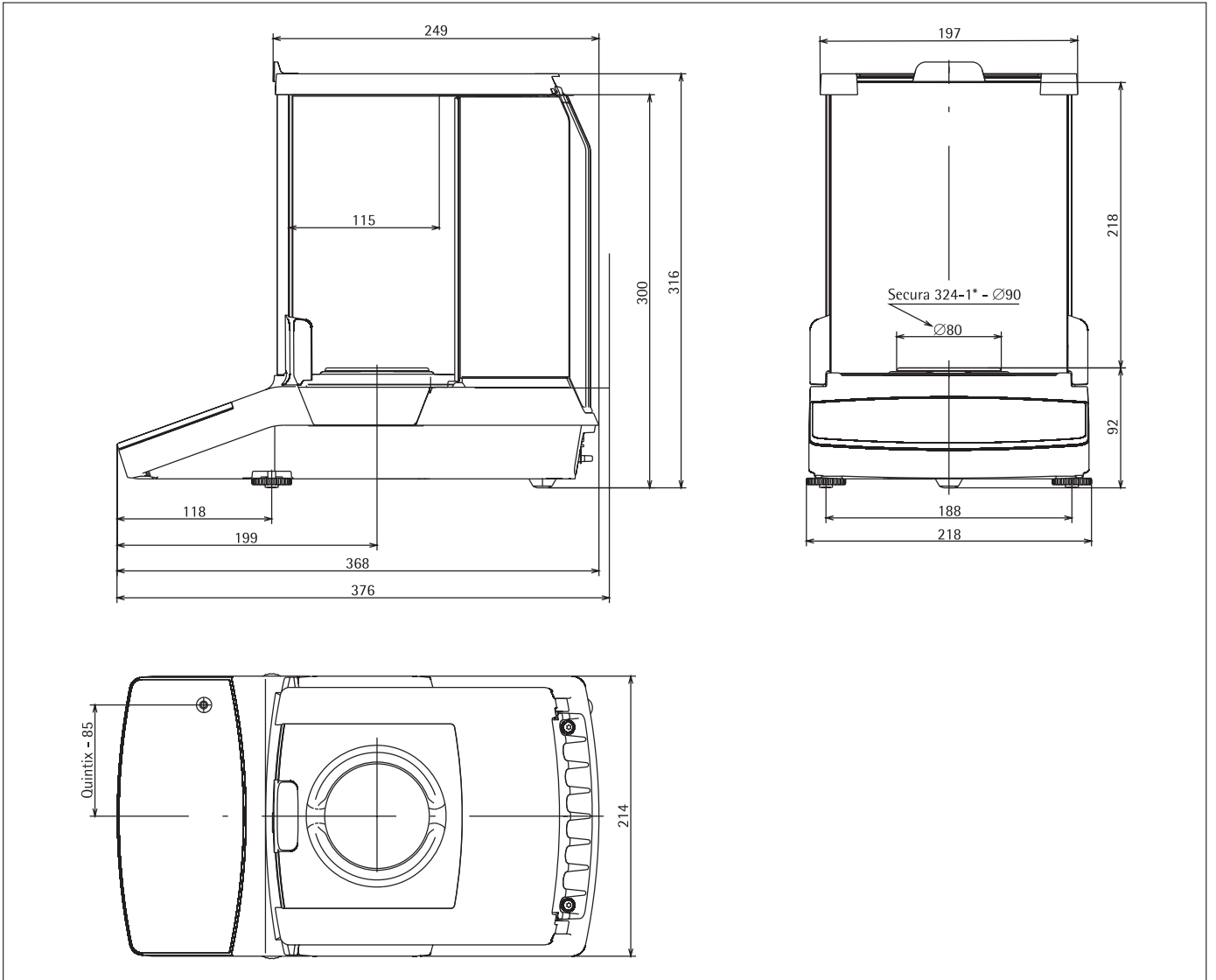
Calibration Weights



YDP30, Premium GLP Laboratory Printer

## Technical Drawings

Models with a readability of 0.01 mg  
in mm



# Sales and Service Contacts

For further contacts, visit [www.sartorius.com](http://www.sartorius.com)

## Europe

### Germany

Sartorius Lab Instruments  
GmbH & Co. KG  
Weender Landstrasse 94-108  
37075 Goettingen

Phone +49.551.308.0  
Fax +49.551.308.3289

### France & Suisse Romande

Sartorius France  
2, rue Antoine Laurent de Lavoisier  
ZA de la Gaudrée  
91410 Dourdan

Phone +33.1.70.62.50.00  
Fax +33.1.64.59.76.39

### Austria

Sartorius Austria GmbH  
Franzosengraben 12  
1030 Vienna

Phone +43.1.7965760.0  
Fax +43.1.7965760.24

### Belgium

Sartorius Belgium N.V.  
Leuvensesteenweg, 248/B  
1800 Vilvoorde

Phone +32.2.756.06.71  
Fax +32.2.253.45.95

### Finland & Baltics

Sartorius Biohit Liquid Handling Oy  
Laippatie 1  
00880 Helsinki

Phone +358.9.755.951  
Fax +358.9.755.95.200

### Hungary

Sartorius Hungária Kft.  
Kagyló u. 5.  
2092 Budakeszi

Phone +3623.457.227  
Fax +3623.457.147

### Ireland

Sartorius Ireland Ltd.  
Unit 41, The Business Centre  
Stadium Business Park  
Ballycoolin Road  
Dublin 11

Phone +353.1.8089050  
Fax +353.1.8089388

### Italy

Sartorius Italy S.r.l.  
Viale A. Casati, 4  
20835 Muggiò (MB)

Phone +39.039.4659.1  
Fax +39.039.4659.88

### Netherlands

Sartorius Netherlands B.V.

Phone +31.30.60.53.001  
Fax +31.30.60.52.917

[info.netherlands@sartorius.com](mailto:info.netherlands@sartorius.com)

### Poland

Sartorius Poland sp.z o.o.  
ul. Wrzesinska 70  
62-025 Kostrzyn

Phone +48.61.6473830  
Fax +48.61.6473839

### Russian Federation

LLC "Sartorius ICR" and LLC "Biohit"  
Uralskaya str. 4, Lit. B  
199155, Saint-Petersburg

Phone +7.812.327.5.327  
Fax +7.812.327.5.323

### Spain & Portugal

Sartorius Spain, S.A.  
Avda. de la Industria, 32  
Edificio PAYMA  
28108 Alcobendas (Madrid)

Phone Spain +34.902.123.367  
Phone Portugal +351.800.855.800  
Fax Spain +34.91.358.96.23  
Fax Portugal +351.800.855.799

### Switzerland

Sartorius Mechatronics Switzerland AG  
Ringstrasse 24a  
8317 Tagelswangen (ZH)

Phone +41.44.746.50.00  
Fax +41.44.746.50.50

### U.K.

Sartorius UK Ltd.  
Longmead Business Centre  
Blenheim Road, Epsom  
Surrey KT19 9QQ

Phone +44.1372.737159  
Fax +44.1372.726171

### Ukraine

LLC "Biohit"  
Post Box 440 "B"  
01001 Kiev, Ukraine

Phone +380.44.411.4918  
Fax +380.50.623.3162

## America

### USA

Sartorius Corporation  
5 Orville Drive, Suite 200  
Bohemia, NY 11716

Phone +1.631.254.4249  
Toll-free +1.800.635.2906  
Fax +1.631.254.4253

### Argentina

Sartorius Argentina S.A.  
Int. A. Avalos 4251  
B1605ECS Munro  
Buenos Aires

Phone +54.11.4721.0505  
Fax +54.11.4762.2333

### Brazil

Sartorius do Brasil Ltda  
Avenida Senador Vergueiro 2962  
São Bernardo do Campo  
CEP 09600-000 - SP- Brasil

Phone +55.11.4362.8900  
Fax +55.11.4362.8901

### Canada

Sartorius Canada Inc.  
2179 Dunwin Drive #4  
Mississauga, ON L5L 1X2

Phone +1.905.569.7977  
Toll-Free +1.800.668.4234  
Fax +1.905.569.7021

### Mexico

Sartorius de México S.A. de C.V.  
Circuito Circunvalación Poniente  
No. 149  
Ciudad Satélite  
53100, Estado de México  
México

Phone +52.5555.62.1102  
Fax +52.5555.62.2942

## Asia | Pacific

### Australia

Sartorius Australia Pty. Ltd.  
Unit 5, 7-11 Rodeo Drive  
Dandenong South Vic 3175

Phone +61.3.8762.1800  
Fax +61.3.8762.1828

### China

Sartorius Scientific  
Instruments (Beijing) Co., Ltd.  
33 Yu An Road, Airport Industrial Park  
Zone B,  
Shunyi District, Beijing 101300,  
P.R.China

Phone +86.10.8042.6300  
Fax +86.10.8042.6486

### Hong Kong

Sartorius Hong Kong Ltd.  
Unit 1012, Lu Plaza  
2 Wing Yip Street  
Kwun Tong  
Kowloon, Hong Kong

Phone +852.2774.2678  
Fax +852.2766.3526

### India

Sartorius Weighing India Pvt. Ltd.  
#69/2-69/3, NH 48, Jakkasandra,  
Nelamangala Tq  
562 123 Bangalore, India

Phone +91.80.4350.5250  
Fax +91.80.4350.5253

### Japan

Sartorius Japan K.K.  
4th Fl., Daiwa Shinagawa North Bldg.  
8-11, Kita-Shinagawa 1-chome  
Shinagawa-ku, Tokyo, 140-0001 Japan

Phone +81.3.3740.5408  
Fax +81.3.3740.5406

### Malaysia

Sartorius Malaysia Sdn. Bhd  
Lot L3-E-3B, Enterprise 4  
Technology Park Malaysia  
Bukit Jalil  
57000 Kuala Lumpur, Malaysia

Phone +60.3.8996.0622  
Fax +60.3.8996.0755

### Singapore

Sartorius Singapore Pte. Ltd  
1 Science Park Road,  
The Capricorn, #05-08A,  
Singapore Science Park II  
Singapore 117528

Phone +65.6872.3966  
Fax +65.6778.2494

### South Korea

Sartorius Korea Ltd.  
8th Floor, Solid Space B/D,  
PanGyoYeok-Ro 220, Bundang-Gu  
SeongNam-Si, GyeongGi-Do, 463-400

Phone +82.31.622.5700  
Fax +82.31.622.5799

### Thailand

Sartorius (Thailand) Co. Ltd.  
129 Rama 9 Road,  
Huaykwang  
Bangkok 10310

Phone +66.2643.8361-6  
Fax +66.2643.8367



◀ [www.sartorius.com](http://www.sartorius.com)